



Bank of Israel \* Research Department

## Companies Survey

Second quarter of 2010

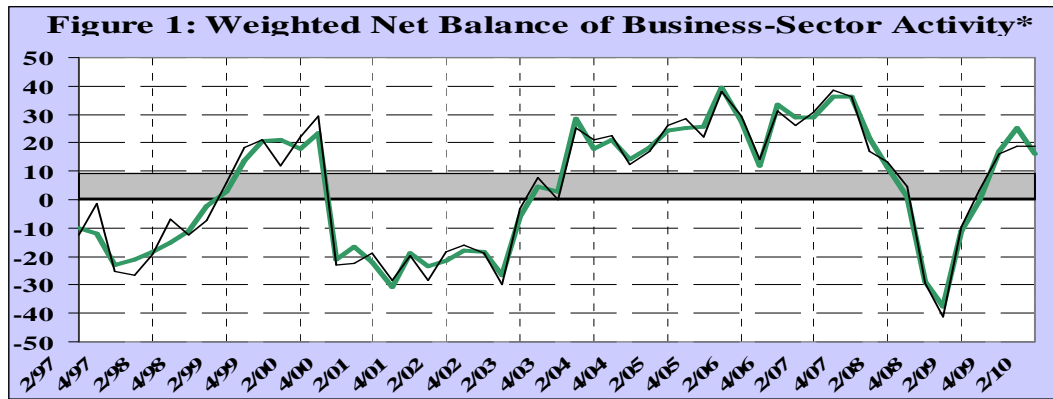
Jerusalem, July 2010  
[www.bankisrael.org.il](http://www.bankisrael.org.il)



## Companies Survey for the Second Quarter of 2010—Major Findings

Reports from companies indicate that business activity continued to expand in the second quarter of 2010 but at a more moderate rate than in the previous quarter, as reflected by the net balance of total business sector activity (Figure 1). The pace of growth of activity and domestic and export sales was not uniform among the industries reviewed. The leading index reflects expectations of an expansion in the total activity of the business sector. However, the probability increased of a slower pace of activity expansion during the third quarter of the year in the manufacturing, construction and high-tech services industries. The growth in activity was centered more in the domestic market, and less in export sales.

In **manufacturing**, after growing in the previous quarter output continued to expand. This expansion was notable from increased local sales, while the rise in exports was more moderate. The growth in activity encompassed large manufacturing companies in particular, while a stable level of activity was recorded among SMEs. Orders for the coming quarter are indicative of a slower pace of sales growth to the local market and stability in export sales. Sales of **commerce** companies increased, in a continuation of the gradual growth in their net balance during 2009. Companies in the industry expect this trend to continue in the next quarter. **Business services** companies reported a growth in productivity similar to the increase in the previous quarter. Companies are expecting a more substantial growth in domestic activity and a more moderate increase in activity abroad during the next quarter. **Hotels** recorded a year-on-year growth in activity for the second consecutive quarter, reflecting the expansion of incoming tourism. A moderate increase was recorded in internal tourism, and this trend is expected to continue on the basis of orders for the next quarter. **Transport and communications** recorded a rise in activity, mainly due to a growth in sales of services to the Israeli market. Orders for the next quarter indicate that activity is expected to expand during that quarter as well. Activity in the **construction** industry did not increase, and most indices still attest to the weakness of the industry. A moderate expansion in the industry's activity is expected during the next quarter. Average **inflation expectations** rose slightly but are still within the range of price stability, and amount to 2.6 percent compared with 2.5 percent in the previous survey. Companies expect, on average, that the **NIS/US\$ exchange rate** in 12 months time will be NIS 4 to the dollar, more than companies' expectations in the previous quarter. Fifty four percent of all the export companies in the manufacturing industries that were reviewed, reported that they use hedging instruments to protect against the risks connected with changes in the exchange rates of foreign countries against the shekel. Among transport and communications companies, 45 percent replied that they use these instruments. Among service export companies, only 26 percent replied that they use the instruments. During the past year, the volume of hedging instruments remained unchanged among manufacturing companies, while service companies reported a decrease.



\* The net balance is the difference between the ratio of companies reporting an increase and the ratio of those reporting a decrease. The thick line represents seasonally-adjusted data. The thin line represents the source data.

1. The overall net balance is calculated in accordance with the seasonally-adjusted net balance of each industry, taking into account the industry's proportion in business-sector product.

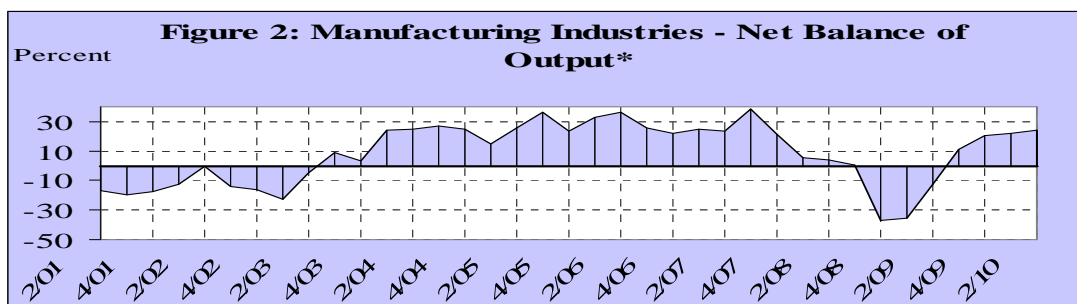
## 1. Macro developments

An analysis of the responses of all the companies participating in the survey, with each industry's net balance weighted by its share in business-sector product, shows that in the first quarter of 2010 the expansion in the business sector in Israel continued, but at a slightly lower rate than in the previous quarter (Figure 1). Activity increased in all industries except construction—as reflected by their positive net balances and the low level of demand constraints. The upturn in activity was apparent mainly in the domestic market and less in activity abroad.

The leading index of activity in the business sector is indicative of a further expansion in the total activity of the business sector during the next quarter as well. However, an analysis of the industry-specific leading index shows that the probability of a slower pace of activity expansion has increased in the manufacturing, construction and high-tech services industries.

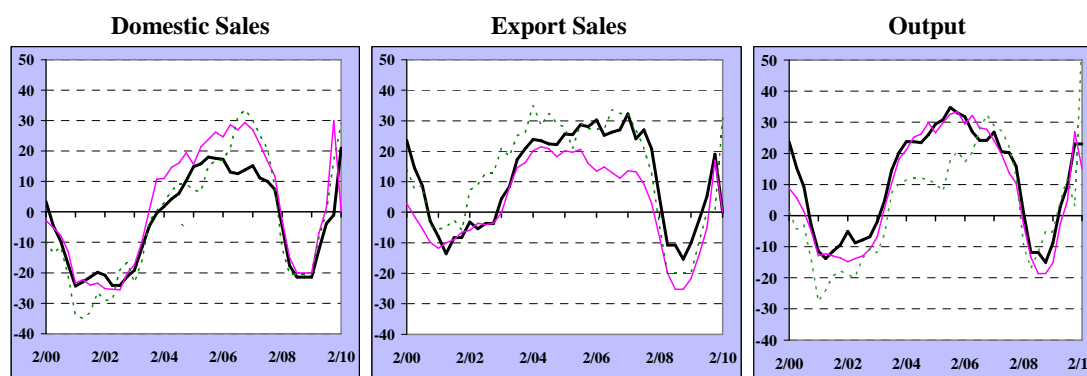
## 2. Industry developments

Reports from **manufacturing** companies show that the expansion of activity continued in the second quarter of 2010, at a rate similar to the increase recorded in the net balance since the first quarter of 2009 (Table 3 and Figure 2). The expansion was reflected by a substantial increase in the net balance of domestic sales, while the net balance of exports rose to an only moderate extent. During the quarter reviewed the severity of demand constraints in Israel and abroad remain unchanged compared with the previous quarter. The growth in activity was also apparent to some extent from the development of the factors of production in the industry: Companies reported an increase in the number of employees, even though the increase was relatively moderate, and an increase in the rate of exploitation of machinery and equipment. Companies expected the activity growth in the domestic market to continue into the next quarter, but to a lesser extent than in the quarter reviewed, concurrent with a moderate decrease in exports as apparent from export order data.



The classification of manufacturing companies into three groups of industries by their degree of technological intensiveness—low, medium, and high-tech—shows that the increase in the net balance encompassed all types of industry groups. Export sales by high-tech and medium-tech industries rose appreciably, while the increase among low-tech companies was only moderate. All company types reported that a substantial decrease in export orders is expected in the next quarter. Low-tech and medium-tech companies expect a decrease in sales to the domestic market, while high-tech companies expect an increase in their sales (Table 1.1 and Figure 3). An analysis of the activity of secondary industries (Table 15) reveals large increases in output, domestic sales and exports by the chemicals, rubber and plastics, and food and beverage industries. A decrease in actual exports and a moderate increase in export orders for the next quarter were reported by the electronics and electricity industry, and the transportation equipment industry. It should be noted that a more moderate increase in export orders for the next quarter was recorded in all industries (except diamonds), while decreases were recorded by the paper and printing, and the metal and machinery industries.

The classification of manufacturing companies by **size** (number of employees) shows that the expansion in the domestic and export markets encompassed large companies, while a stable level of activity was recorded among SMEs (Table 16). The export downturn expected in the next quarter is centered mainly among SMEs, while large companies expect an only moderate increase in export orders.



<sup>a</sup> Moving average, outlying observations - unadjusted data

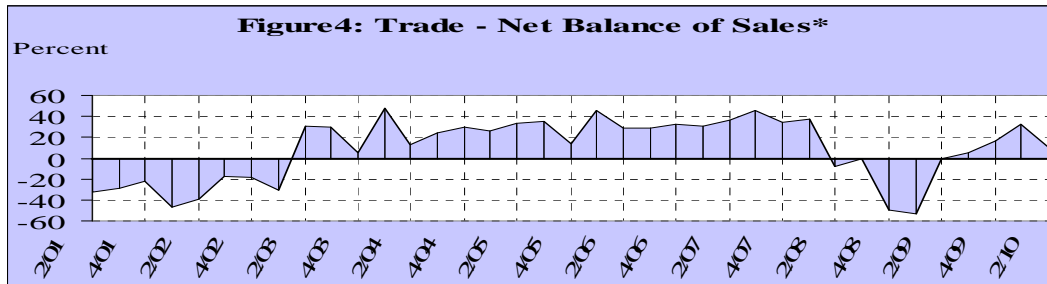
Thick line - advanced industries

Thin line - traditional industries

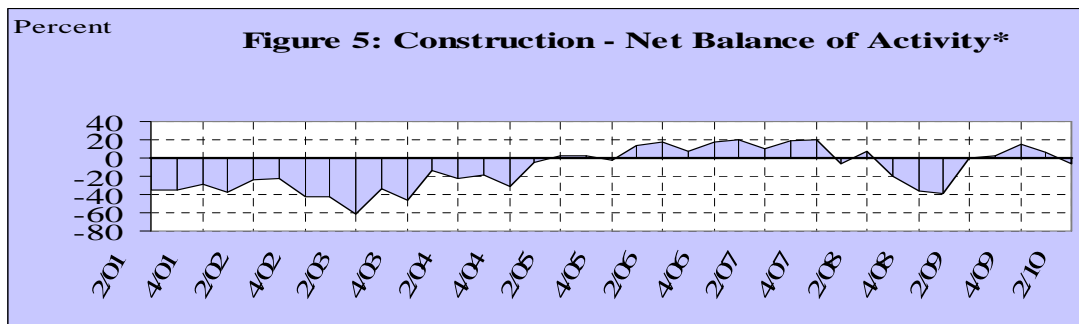
Dotted line - mixed industries

**Commerce** companies reported a more moderate increase in their sales volume during the second quarter than in the previous quarter. These companies' sales growth

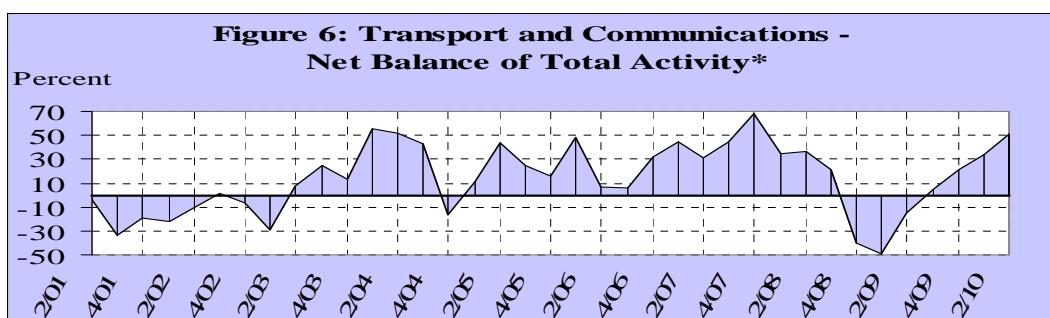
during the quarter reviewed and the previous quarter reflect an increase in the number of employees in the industry. Companies expect larger sales growth during the next quarter (Table 5 and Figure 4). The activity growth is also reflected by the relatively minor severity of demand constraints (Table 17 and Figure 9)



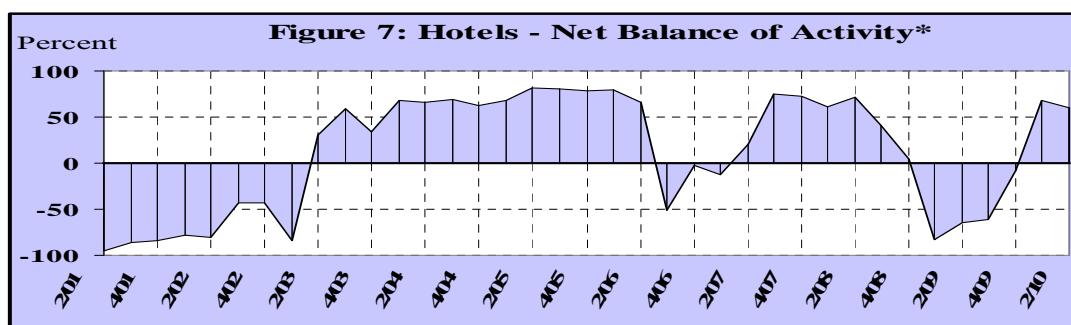
**Construction** companies reported a stable volume of construction works in the quarter reviewed (Table 7 and Figure 5). A decrease was recorded in infrastructure construction, and a moderate increase was recorded in building construction. Overall data on activity in the industry are indicative of its weakness: no change in building starts, a moderate increase in building completions, and a decrease in the net balance of the number of employees. Companies expect a moderate growth in construction works during the next quarter. The land price constraint was cited as the most effective supply-side constraint, and the severity of this constraint increased during the quarter reviewed compared with the previous quarter. The rapid increase in the prices of the industry's output during the quarter reviewed may also have reflected the increased supply severity.



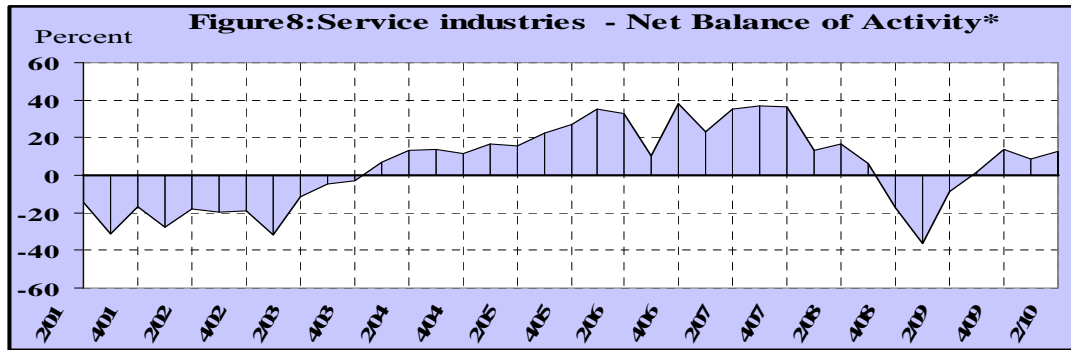
**Transport and communications** companies report that activity expanded during the quarter reviewed. The growth in activity and in sales of services to Israelis encompassed all the secondary industries in this industry, and was particularly notable in maritime and air transportation (Table 9 and Figure 6). An analysis of the severity of constraints to a further growth in activity indicates a continued easing in the demand constraints inherent in the volume of incoming and internal tourism. However, an increase was recorded in the severity of the supply-side constraint as a result of the shortage of professional employees. On the demand side, the severity of the restraint deriving from the growing competition in the industry increased (Table 17 and Figure 9). Companies expected an increase in orders, but at a more moderate rate than their expectations in the previous quarter.



**Hotels** reported a continued growth in activity year-on-year (Table 11 and Figure 7), following a contraction in the industry during 2009 against the background of the economic recession in Israel and worldwide. A particularly notable development was the considerable increase in the number of foreign tourists' bed nights during the quarter reviewed, following a large and continual decrease in these bed nights in the previous quarter. The severity of demand constraints with respect to the number of foreign tourists remained at a low level for the second consecutive quarter. It should be emphasized that the growth in activity is relative to the low level of hotel activity in the second quarter of last year. However, Israelis' bed nights increased to an only moderate extent. Based on the orders recorded by the hotels included in the survey, this situation in which foreign tourists' bed nights are increasing considerably and Israelis' bed nights are increasing to a lesser extent is expected to continue during the next quarter. It should be noted that companies reported an increase in the severity of financing difficulties in the industry.



**Business services** companies reported a growth in activity as the result of increased sales in Israel. Sales of services abroad remained stable (Table 13 and Figure 8). The growth in activity was accompanied by an increase in the number of employees in the industry. Moreover according to companies' reports, orders from abroad and especially orders for the next quarter increased, albeit at a more moderate rate than the expectations recorded in the previous quarter.



**Table 1**  
Economic activity in the principal industries, based on the net balance of returns from companies

2010	2009				2008				2007			
I	IV	III	II	I	IV	III	II	I	IV	III	II	
22	21	12	-13	-36	-37	*1	*4	*6	21	38	24	Industry (output)
34	24	*3	-14	-30	-34	-8	*2	13	23	31	21	seasonally adjusted
33	*15	*5	*0	-53	-50	*0	*-8	38	34	46	37	Trade (sales)
30	22	*2	*0	-54	-46	*5	*-8	33	40	44	36	seasonally adjusted
*9	*14	*0	*0	-39	-35	-20	*8	*-6	20	19	*7	Construction (total activity)
22	*15	*2	*-11	-32	-33	-20	*-3	*1	21	23	*-2	seasonally adjusted
*30	*22	*5	*-22	-49	-40	33	37	35	69	44	31	Transport and communications (total activity)**
36	*18	*5	*-15	-48	-46	33	37	34	62	52	31	seasonally adjusted
68	*-8	-61	-65	-83	5	40	72	61	73	75	20	Hotels (total activity)***
10	14	1	-9	-36	-17	6	17	14	36	37	35	Service industries
22	15	2	-11	-32	-33	-20	-3	1	21	23	-2	seasonally adjusted
19	16	3	-10	-41	-30	5	13	17	36	39	31	Total business sector
25	17	-1	-11	-38	-29	1	11	21	36	36	29	seasonally adjusted

**table 1.1: The net balance of manufacturing companies, classified by human-capital intensity and innovation**

2010	2009				2008				2007			
I	IV	III	II	I	IV	III	II	I	IV	III	II	
23	31	*9	*-10	-34	-41	*2	16	*9	30	33	22	Advanced companies
58	*10	34	25	-37	-48	*18	*3	*0	*14	63	49	Mixed companies
15	17	*6	-26	-36	-31	*-6	*-5	*5	17	35	17	Traditional companies

\* Not significant (at the 10% level).  
\*\* The significance test is less effective in this industry due to the small number of firms.  
\*\*\* Compared with the same quarter in the previous year.

### Exchange-rate risk hedges

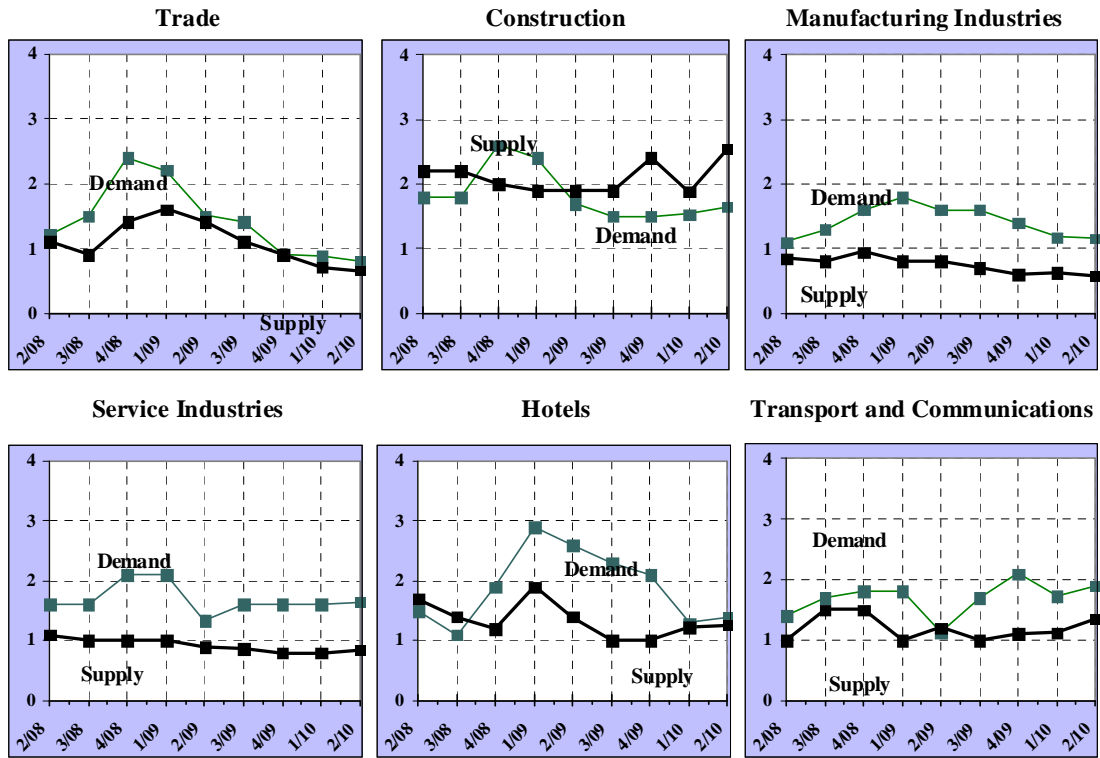
During the quarter companies were asked whether they used hedging instruments (see Table 1.a), such as futures contracts and options, in order to protect themselves against the risks connected with changes in the exchange rates of foreign currencies against the shekel, and whether the extent of their usage of these instruments against such risks changed during the past year. The responses obtained show that 54 percent of manufacturing companies out of all the export companies that answered the question use these instruments. Among transport and communications companies, 45 percent replied that they use hedging instruments. Among service companies

however, only 26 percent of export companies replied that they use the instruments. As expected, usage of hedging instruments among manufacturing and services companies increases commensurate with the size of these companies. In response to the question of whether their usage of hedging instruments had changed during the past year, it was found that the percentage of manufacturing companies answering that they had reduced this usage was the same as the percentage of companies stating that they had increased their usage during the same period. In the services industry however, the percentage of companies answering that they had reduced their usage of hedging instruments during the past year reached 78 percent of all respondents, while only 8 percent replied that they had increased their usage.

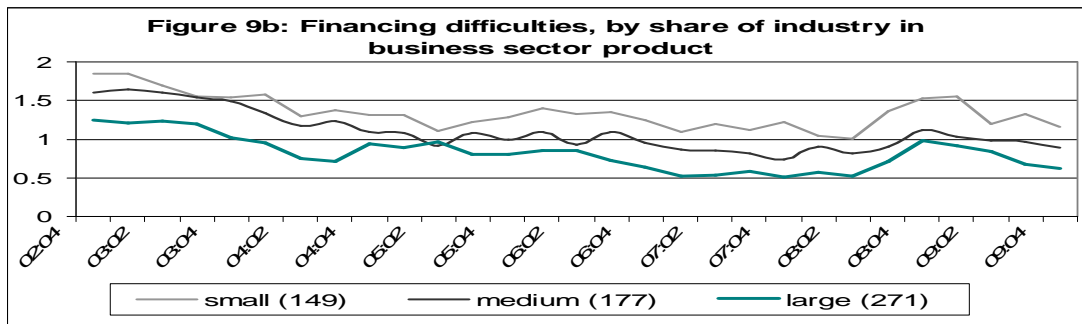
**Table 1a: Percentage of responding companies that use hedging instruments**

Does your company use hedging instruments (futures contracts, options, etc.)? (percent)				
		Yes	No	N/A
		53	40	7
Manufacturing	<i>of which</i> Exporters	54	7	39
		14	57	28
Services	<i>of which</i> Exporters	26	59	16
If yes, has the extent of your use of hedging changed in the last year? (percent)				
		Increased	No change	Reduced
		15	67	18
Manufacturing	<i>of which</i> Exporters	15	67	18
		5	11	84
Services	<i>of which</i> Exporters	8	14	78

**Figure 9a: The severity of constraints on carrying out planned activity (average)<sup>1</sup>**  
 1-Slight, 2-Moderate, 3-Severe, 4-Very severe



1) For every quarter the most severe constraint on the demand side and on the supply side is chosen.  
 Source: Table 17.



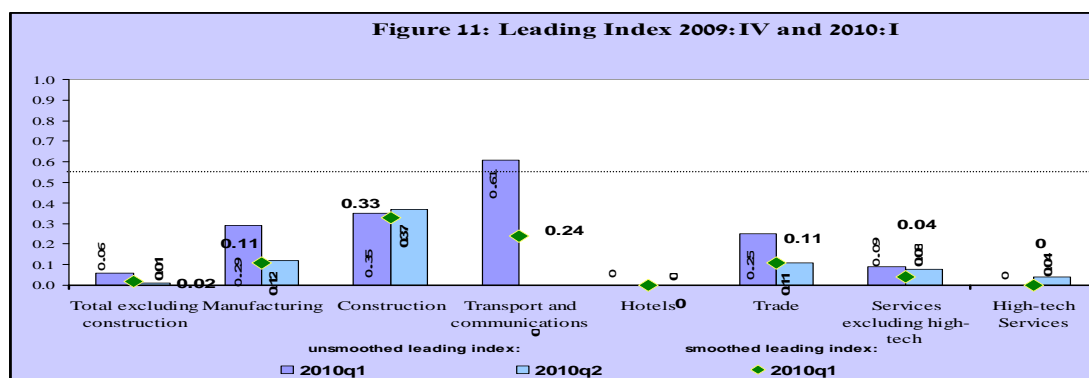
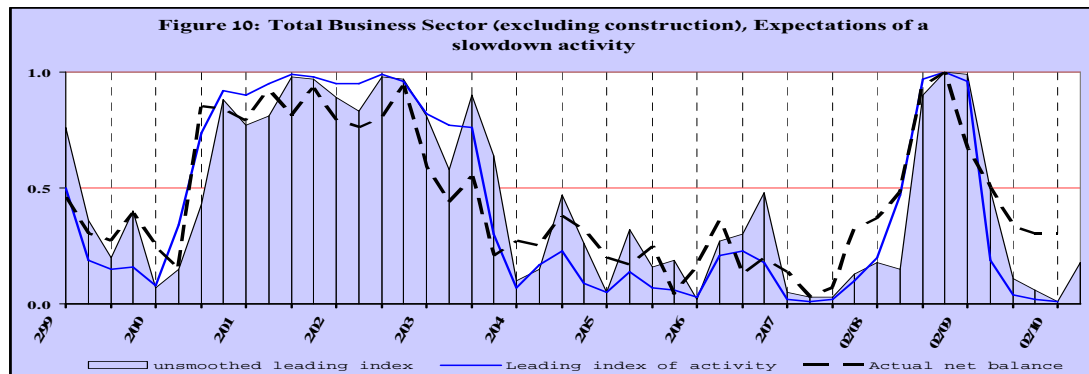
### The Leading Index

The leading index (excluding construction) in this survey is indicative of further expansion in business-sector activity for the third quarter of 2010. The value of the leading index is significantly lower than the 0.5 threshold value,<sup>1</sup> and is based on the assessment of a positive direction of activity in the economy. However, an examination of the values of the leading index by industry distribution reveals a less clear-cut picture.

In addition to the leading index, which is calculated at the level of the business sector (Figure 11), the index is also calculated for each of the six industries covered in the

<sup>1</sup> As long as the leading index is below the 0.5 threshold, one cannot state with certainty that the growth rate will slow in the next quarter. If the index crosses the threshold, an easing of activity in the next quarter may be inferred.

survey and for the high-tech services industry (Figure 10 and Diagrams A-H in the Appendix). Industries' leading indices forecast continuing expansion in all of them. However, in the construction, manufacturing and high-tech services industries, the probability of a downturn in activity increased greatly and approached the threshold value of 0.5.



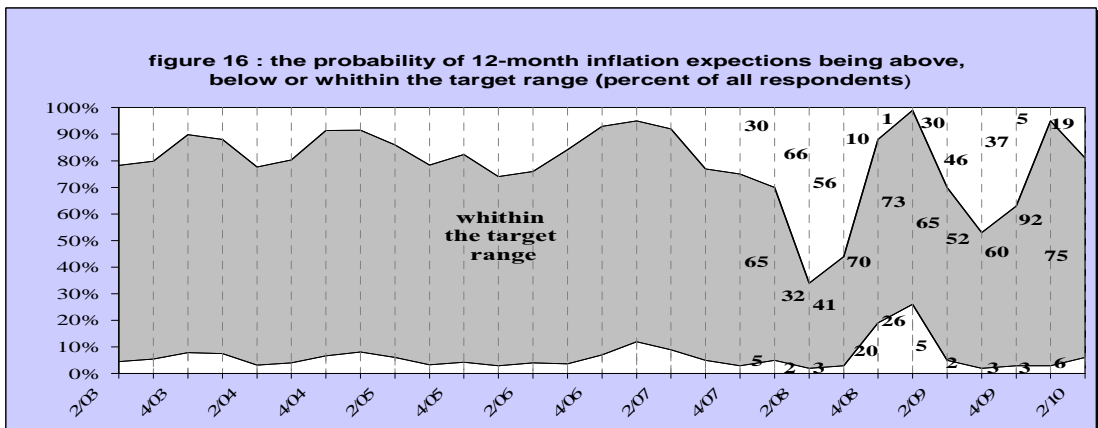
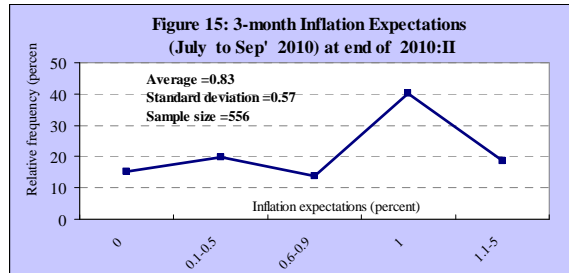
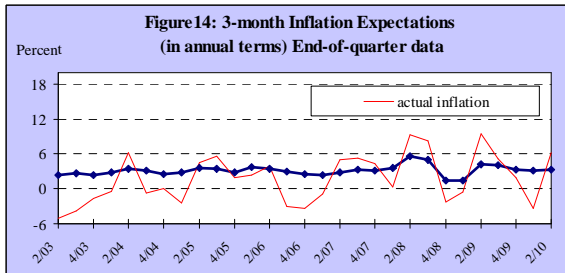
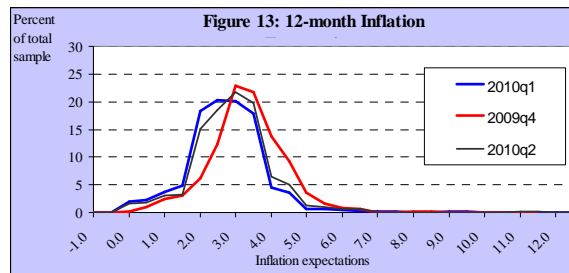
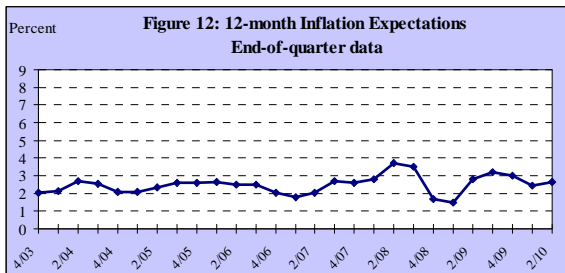
## Survey of inflation expectations

In the second quarter, companies' expectations regarding the cumulative rate of price increase during the next twelve months (July 2010—June 2011) amounted to 2.6 percent, slightly more than the rate of 2.5 percent recorded in the previous quarter but within the range of price stability (1 to 3 percent). It should be noted that this was the second consecutive quarter when inflation expectations for a year ahead were within the range of price stability. This was after they had exceeded this targeted range in the last two quarters of 2009 (Figure 12).

Concurrent with the rise in average inflation expectations for the next 12 months, the distribution of inflation expectations is also indicative of increased expectations of price increases—the median of the distribution in the quarter reviewed rose to 3 percent compared with 2.5 percent in the previous quarter. The mode rose sharply from 2 percent in the previous survey to 3 percent in this survey.

The expected rate of price increase in the next quarter (July 2010-September 2010) rose slightly to 3.3 percent annualized, compared with 3.1 percent in the previous quarter and an environment of 4.5 percent for most of 2009 (Figure 14).

The review of inflation expectations also shows that the proportion of companies expecting inflation to exceed the upper limit of the price-stability target<sup>2</sup> increased to 19 percent during the quarter reviewed, compared with 5 percent in the previous quarter (the upper section of Figure 16). Concurrently, the proportion of companies expecting inflation in the next 12 months to fall within the price-stability target decreased from 92 percent in the previous quarter to 75 percent in the quarter reviewed (the middle section in Figure 16). The proportion of companies expecting inflation in the next 12 months to fall below the price-stability target is 6 percent (the lower section of Figure 16).



The lower area denotes the share of respondents who expect 12-month inflation to be below the target range.  
 The middle area denotes the share of respondents who expect 12-month inflation to be within the target range.  
 The upper area denotes the share of respondents who expect 12-month inflation to exceed the target range.

<sup>2</sup> The targeted range of inflation for the next twelve months is 1–3 percent.

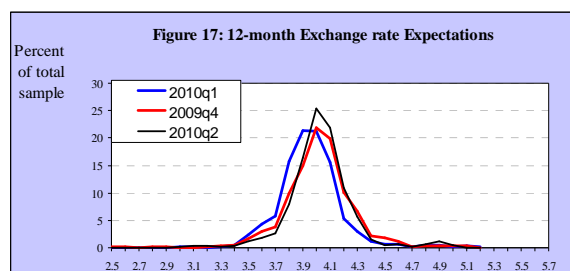
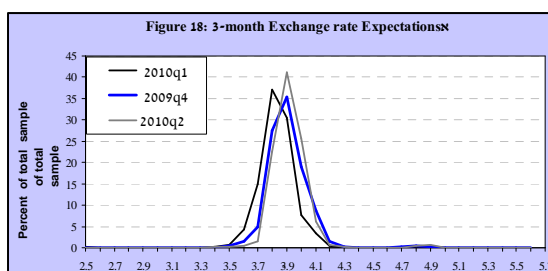
**Table 2: Statistic Analysis of 12-month Inflation Expectations**

	2007		2008				2009				2010	
	III	IV	I	II	III	IV	I	II	III	IV	I	II
1. Mode	3.00	3.00	3.00	4.00	3.00	2.00	1.00	3.00	3.00	3.00	2.00	3.00
2. Median	2.50	2.80	2.90	3.80	3.50	1.50	1.25	3.00	3.00	3.00	2.50	3.00
3. Average	<b>2.67</b>	<b>2.77</b>	<b>2.69</b>	<b>3.70</b>	<b>3.52</b>	<b>1.70</b>	<b>1.47</b>	<b>2.81</b>	<b>3.22</b>	<b>3.03</b>	<b>2.45</b>	<b>2.64</b>
4. Standard Deviation	1.09	0.92	1.04	1.42	1.44	1.37	1.31	1.19	1.21	1.05	1.05	1.16
5. Skewness	-0.33	-0.23	-0.31	-0.30	-0.30	-0.30	0.47	-0.19	0.22	0.03	0.45	-0.36
Number of responding companies	413	504	483	472	490	470	466	472	552	509	584	553

\*Skew is calculated as the difference between average and mode

## Expectations regarding changes in the NIS/dollar exchange rate

The companies participating in the survey were asked about their expectations of the level of the NIS/\$ exchange rate at the end of the next quarter (September 30, 2010) and one year from the end of the survey period (June 30, 2011). The latter expectation (end of June, 2011) was NIS 4 to the dollar, which was more than the rate of NIS 3.9 to the dollar expected in the previous quarter. The exchange rate which companies expected (on average) at the end of the next quarter was NIS 3.9 compared with NIS 3.8 in the previous quarter. The average exchange rate of the dollar as of the date reported by the companies participating in the survey amounted to NIS 3.85.



**Table 3**  
**Net balance ( percent of all responding industrial companies) <sup>1</sup>**

	2007			2008				2009				2010
	II	III	IV	I	II	III	IV	I	II	III	IV	I
1. Output	38	21	*6	*4	*1	-37	-36	-13	12	20	22	24
2. Sales	33	26	*-1	*7	*-1	-46	-41	-17	9	19	22	19
3. Domestic sales	31	17	*-1	*0	*-5	-42	-42	-17	*6	11	16	13
4. Export	29	26	*5	*8	*-4	-42	-42	-18	*-1	11	17	15
5. Stocks of finished goods	22	18	9	9	*4	-8	-26	-20	*2	*3	10	20
6. Stocks of raw materials	17	11	10	*6	11	*3	-16	-20	*-6	11	*1	17
7. Rate of utilization of machinery and equipment	25	8	*-2	*-3	-8	-39	-43	-20	*5	9	15	18
8. Number of employees	15	16	*2	*-3	*-5	-36	-43	-25	-10	*-5	*4	7
9. Domestic orders	15	10	*5	*-2	-23	-50	-45	-15	*-4	10	15	*7
10. Export orders	28	15	*4	9	-11	-45	-47	-18	*7	11	23	*5
Number of responding companies	220	252	270	265	272	272	250	244	263	232	227	216

<sup>1</sup> The difference between the percentage of companies reporting an increase and those reporting a decrease.

\* Not significant (at the 10% level).

**Table 4**  
**Manufacturing Industries in 2009:IV**  
**(percent of all responding companies in each category)**

	Net balance		Significant Increase	Moderate Increase	No Change	Moderate Decrease	Significant Decrease
	2010 I	2010 II					
<b>A. Activity in the quarter</b>							
1. Output	22 (5)	24 (5)	6	38	36	14	6
2. Sales	22 (5)	19 (6)	7	37	31	19	6
3. Domestic sales	16 (5)	13 (5)	4	33	39	18	6
4. Export	17 (6)	15 (6)	7	30	41	15	7
5. Stocks of raw materials	10 (5)	20 (5)	8	26	52	11	3
6. Stocks of finished goods	1 (5)	17 (4)	1	29	57	11	2
7. Rate of utilization of machinery and equipment	15 (5)	18 (5)	5	31	46	15	3
8. Number of employees	4 (4)	7 (4)	0	19	69	10	2
<b>B. Expected activity in the following quarter**</b>							
9. Domestic orders	15 (5)	7 (5)	1	24	57	16	2
10. Export orders	23 (6)	5 (5)	6	21	51	16	6
Number of responding companies	227	216					

\*\* Orders received in the quarter reviewed.

Figures in brackets are standard deviations. Values smaller (in absolute terms) than 1.64 standard deviations are not statistically significant at the 10% level.

**Table 5**  
**Net balance (percent of all responding trading companies)<sup>1</sup>**

	2007			2008				2009				2010
	III	IV	I	II	III	IV	I	II	III	IV	I	II
1. Sales	46	34	38	*-8	*0	-50	-53	*0	*5	*16	32	*11
2. End-of-quarter stock	30	34	*16	*17	*9	*-17	*-16	*-12	*-1	*-1	*-1	*-3
3. Percent of credit sales	17	22	25	19	*12	*11	*3	18	17	20	17	20
4. Supply period	14	*3	*6	*0	*3	-9	-10	*0	*-2	*2	*-3	*2
5. Forecast change in number of permanent employees	*8	16	*9	*6	*-17	-53	-55	-24	*1	*0	*5	*7
6. Sales expectations	57	63	*22	53	*-3	-35	-38	24	28	35	51	40
7. Number of employees											10	*4
Number of responding companies	24	32	32	36	36	36	32	33	117	86	94	90

<sup>1</sup>The difference between the percentage of companies reporting an increase and those reporting a decrease.

\* Not significant (at the 10% level).

**Table 6**  
**Trade in 2009:IV**  
**(percent of all responding companies in each category)**

	Net balance		Significant Increase	Moderate Increase	No Change	Moderate Decrease	Significant Decrease
	2010 I	2010 II					
<b>A. Activity in the quarter</b>							
1. Sales	32 (8)	11 (8)	1	37	35	22	5
2. End-of-quarter stock	-1 (7)	-3 (8)	2	22	49	26	1
3. Percent of credit sales	17 (6)	20 (6)	5	22	66	7	0
4. Supply period	-3 (3)	2 (3)	0	4	94	2	0
5. Number of employees	10 (5)	4 (5)	0	13	78	8	1
<b>B. Expected activity in the following quarter</b>							
6. Forecast change in number of permanent employees	5 (5)	7 (4)	1	11	83	5	0
7. Sales expectations for following quarter	51 (7)	40 (8)	3	50	34	13	0
Number of responding companies	94	90					

Figures in brackets are standard deviations. Values smaller (in absolute terms) than 1.64 standard deviations are not statistically significant at the 10% level.

## Construction

**Table 7**  
Net balance (percent of all responding construction companies)<sup>1</sup>

	2007			2008				2009				2010
	III	IV	I	II	III	IV	I	II	III	IV	I	II
1. Total activity	*7	19	20	*-6	*8	-20	-39	*0	*0	*15	*6	*-7
of which 2. Buildings	*-3	*13	17	*3	*0	*-6	-48	*-3	*-3	*3	*3	*7
3. Infrastructure	30	*8	24	*-7	*9	-30	-48	*-4	*-17	*-18	*-12	*-19
4. Output prices in dollar terms	23	30	38	40	49	26	-34	*14	22	*12	*15	*18
5. Area of building starts (sq. m.)	*-8	*-10	*-3	*-12	*-5	-40	-43	*-6	*3	*19	*6	*0
6. Area of building completions (sq. m.)	*10	*-10	*0	*9	*5	*-3	-34	*0	*-6	*3	*-3	*4
7. Building time	21	27	15	18	*8	26	*0	*3	*9	*6	22	25
8. Expected activity in the following quarter**	23	*6	25	*3	*-5	-22	-30	*6	*10	*18	24	*13
9. Number of employees												*-14
Number of responding companies	42	33	44	36	41	36	37	35	39	36	36	30

<sup>1</sup>The difference between the percentage of companies reporting an increase and those reporting a decrease.

\* Not significant (at the 10% level).

\*\* Orders or expectations of construction in the following quarter.

**Table 8**  
Construction in 2009:IV  
(percent of all responding companies in each category)

	Net balance		Significant Increase	Moderate Increase	No Change	Moderate Decrease	Significant Decrease
	2010	2010					
	I	II					
<b>A. Activity in the quarter</b>							
1. Total activity	6 (12)	-7 (14)	0	26	41	23	10
of which Buildings	3 (12)	7 (12)	0	25	57	11	7
Infrastructure	-12 (13)	-19 (16)	0	19	43	24	14
2. Output prices in dollar terms	15 (11)	18 (13)	0	36	46	18	0
3. Area of building starts (sq. m.)	6 (12)	0 (14)	0	28	44	17	11
4. Area of building completions (sq. m.)	-3 (10)	4 (9)	0	14	76	6	4
5. Building time	22 (9)	25 (10)	0	29	67	4	0
6. Number of employees		-14 (11)	0	11	64	14	11
<b>B. Expected activity in the following quarter</b>	24 (12)	13 (15)	0	40	33	14	13
Number of responding companies	36	30					

Figures in brackets are standard deviations. Values smaller (in absolute terms) than 1.64 standard deviations are not statistically significant at the 10% level.

## Transport and Communications

**Table 9**  
Weighted net balance as percentage of all responding transport and communications companies

	2007			2008				2009				2010
	III	IV	I	II	III	IV	I	II	III	IV	I	II
1. Total activity	44	69	*35	37	*21	-40	-49	*15	*5	*22	*34	51
2. Sales of services to residents	44	68	*32	*38	*30	-44	-41	*-9	*0	*21	42	50
3. Sales of services to nonresidents	*13	*20	*-6	*-10	16	-11	-40	*-11	*-12	*4	*-4	*12
4. Utilization of equipment (capacity utilization, etc.)	41	45	*39	36	*17	-44	-56	*-6	*2	*11	46	*29
5. Expected activity in the following quarter**	46	59	72	34	*7	*-41	*-10	*15	*5	*21	57	48
6. Number of employees										*8	23	42
Number of responding companies	21	24	28	20	25	30	27	32	46	42	43	36

<sup>1</sup> The difference between the percentage of companies reporting an increase and those reporting a decrease.

See Appendix for explanation of the weighting.

\*\* Orders or expectations of total activity in the following quarter.

**Table 10**  
Transport and Communications in 2009:IV  
(percent of all responding companies in each category)

	Net balance		Significant Increase	Moderate Increase	No Change	Moderate Decrease	Significant Decrease
	2010	2010					
	I	II					
<b>A. Activity in the quarter</b>							
1. Total activity	*34	51	9	45	44	0	2
2. Sales of services to residents	42	50	8	50	34	5	3
3. Sales of services to nonresidents	*-4	12	8	15	65	11	0
4. Utilization of equipment (capacity utilization, etc.)	46	29	5	31	56	5	2
5. Number of employees	23	42	1	41	58	0	0
<b>B. Expected activity in the following quarter</b>							
Expected activity in the following quarter	57	48	8	48	34	7	2
Number of responding companies	43	36					

Due to the small number of companies in this field, a high standard deviation does not necessarily indicate non-significance.

**Table 11**  
**Net balance (percent of all responding hotel companies)<sup>1</sup>**  
**(compared with equivalent period last year)**

	2007			2008				2009				2010
	III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>A. Activity in the quarter</b>												
1. Total activity	75	73	61	72	40	*5	-83	-65	-61	*-8	68	60
2. Number of bed-nights: Tourists	65	70	70	85	45	*10	-85	-78	-81	-35	66	60
3. Number of bed-nights: Israelis	*0	*-18	*-8	*0	*13	-45	-73	-27	*-2	27	58	*12
4. Average revenue per room	67	49	24	26	26	43	*0	*-5	24	*5	45	*-9
5. Number of employees												45
<b>B. Expected activity in the following quarter**</b>												
Bookings for next quarter	62	46	76	63	*2	-70	-88	-68	-38	-5.25	-5	19
Bookings for next quarter of foreign tourists									-33	*6	59	29
Bookings for next quarter of Israelis									-45	*-19	37	*4
Number of responding companies	45	40	40	37	39	47	40	41	42	37	38	35

<sup>1</sup> The difference between the percentage of companies reporting an increase and those reporting a decrease.

\* Not significant (at the 10% level).

\*\* Orders or expectations of total activity in the following quarter.

**Table 12**  
**Hotels in 2009:IV**  
**(percent of all responding companies in each category)**

	Net balance		Significant Increase	Moderate Increase	No Change	Moderate Decrease	Significant Decrease
	2010	2010					
	I	II					
<b>A. Activity in the quarter</b>							
1. Total activity	68 (11)	60 (11)	34	35	22	6	3
2. Number of bed-nights: Tourists	66 (11)	60 (12)	43	31	12	8	6
3. Number of bed-nights: Israelis	58 (11)	12 (13)	9	26	42	11	12
4. Average revenue per room	45 (12)	-9 (15)	3	34	17	40	6
5. Number of employees	50 (9)	45 (10)	15	33	49	3	0
<b>B. Expected activity in the following quarter</b>							
Bookings for next quarter of foreign tourists	59 (11)	29 (13)	18	32	29	18	3
Bookings for next quarter of Israelis	37 (12)	4 (12)	8	12	64	12	4
Number of responding companies	38	35					

Figures in brackets are standard deviations. Values smaller (in absolute terms) than 1.64 standard deviations are not statistically significant at the 10% level.

**Table 13**  
**Net balance (percent of all responding transport and communications companies)<sup>1</sup>**

	2007			2008				2009				2010
	III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>A. Activity in the quarter</b>												
1. Total revenue from current activity	37	36	14	17	*6	-17	-36	*-9	*1	14	9	13
2. Sales of services in Israel	27	33	10	16	*4	-16	-38	-17	*2	14	13	13
3. Sales of services abroad	33	36	18	21	*1	*-13	-38	*4	-16	*7	*-3	*-2
4. Number of employees	22	25	21	12	*7	-16	-29	-15	*-2	7	11	13
5. of which: trained	26	29	24	14	*6	-10	-25	-13	*0	9	13	15
6. Number of Israeli workers abroad	*7	*6	9	*-3	*0	*-1	-16	-12	*-4	*8	*1	*-2
<b>B. Expected activity in the following quarter**</b>												
7. Total orders	41	40	23	25	*-2	-38	-25	*6	25	37	28	23
8. Export orders	52	29	36	22	*8	-36	-23	23	*11	31	26	14
Number of responding companies	163	188	197	191	188	204	185	183	272	241	261	231

<sup>1</sup> The difference between the percentage of companies reporting an increase and those reporting a decrease.

\* Not significant (at the 10% level).

\*\* Orders or expectations of total activity in the following quarter.

**Table 14**  
**Service industries in 2009:IV**  
**(percent of all responding companies in each category)**

	Net balance		Significant Increase	Moderate Increase	No Change	Moderate Decrease	Significant Decrease
	2010	2010					
	I	II					
<b>A. Activity in the quarter</b>							
1. Total revenue from current activity	9 (5)	13 (5)	3	31	45	16	5
2. Sales of services in Israel	13 (4)	13 (5)	3	28	51	15	3
3. Sales of services abroad	-3 (7)	-2 (8)	1	21	54	18	6
4. Number of employees	11 (4)	13 (4)	3	20	67	10	0
5. of which: trained	13 (4)	15 (4)	2	19	73	5	1
6. Number of Israeli workers abroad	1 (3)	-2 (2)	0	1	96	2	1
<b>B. Expected activity in the following quarter**</b>							
7. Total orders	28 (4)	23 (5)	3	38	41	16	2
8. Export orders	26 (7)	14 (8)	4	27	52	12	5
Number of responding companies	261	231					

\* Not significant (at the 10% level)

\*\* Orders received in the quarter reviewed.

Figures in brackets are standard deviations. Values smaller (in absolute terms) than 1.64 standard deviations are not statistically significant at the 10% level.

			Number of responding companies	Total output	Domestic sales	Domestic orders <sup>1</sup>	Actual exports	Export orders <sup>1</sup>	Finished goods	Number of employees
	2010	2009:III								
Mining, quarrying, construction materials, and wood	2010	II	18	*28	*12	*20	*9	*0	*0	*-11
	2010	I	19	*0	*.5	*12	56	50	*-16	*-11
Food and beverages	2010	II	32	34	35	*14	*18	*9	*16	16
	2010	I	28	43	48	22	38	*19	*4	*11
Textiles, clothing, and leather	2010	II	19	*18	*6	*-6	*18	*7	53	*0
	2010	I	16	*20	*13	*0	*27	*20	*-6	*-13
Chemicals, rubber, and plastic	2010	II	37	72	41	*8	46	*17	*16	24
	2010	I	35	26	31	49	*6	46	*11	*11
Metals and machinery	2010	II	33	*3	*-3	*-7	*3	*-8	21	*-3
	2010	I	39	*3	*11	*9	*-12	*3	*-5	-21
Electronics, electricity, and transport equipment	2010	II	51	*12	*8	19	*5	*8	17	*4
	2010	I	64	26	*-3	*5	25	*18	*13	*13
Paper, printing, and other	2010	II	20	*-16	*-26	*-11	-46	-38	*0	0
	2010	I	20	*28	33	*6	*0	*8	*-11	26
Total manufacturing industries excluding diamonds	2010	II	210	24	13	*7	13	*3	18	*6
	2010	I	221	21	16	16	15	22	*2	*4
Diamonds	2010	II	6	33	*-20	0	67	50	*-17	50
	2010	I	6	*50	*20	*-25	67	67	*-17	*17
Total manufacturing industries	2010	II	216	24	13	*7	15	*5	17	7
	2010	I	227	22	16	15	17	23	*1	*4

<sup>1</sup> Orders received in quarter reviewed.

\* Not significant (at the 10% level).

**Table 16**  
**Net balance of the principal industries and construction**  
**by size of company, 2009:IV**

	Manufacturing companies				Total activity	Construction companies			
	Total	Small	Middle	Large		Total	Small	Middle	Large
Output	24	*-13	*9	43	Area of starts	*-7	*-11	*0	*-10
Total sales	19	*-9	*7	34	Area of completions	*0	*0	*18	*-22
Domestic sales	13	*-10	*-2	26	Output prices in \$	*4	*-13	27	*-11
Export	15	*0	*16	16	Area of completions	*18	*0	*9	44
Number of companies	216	32	67	117	Area of completions	30	9	11	10

<sup>1</sup> According to number of employees (small company - 1-19 employees, medium size company - 20-99 employees, large company - 100 employees or more).

\* Not significant (at the 10% level).

**Table 17**  
**The severity of constraints on carrying out planned activity (average)**  
**1-Minimal, 2-Moderate, 3-Significant, 4-Very significant**

Manufacturing Industries							Transport and Communications						
	2008		2009		2010			2008		2009		2010	
	I	II	III	IV	I	II		I	II	III	IV	I	II
<b>Demand constraints</b>							<b>Demand constraints</b>						
Volume of export orders	1.8	1.6	1.6	1.4	1.2	1.1	Booking by foreign tourists	1.0	0.9	1.0	0.8	0.7	0.5
Volume of domestic orders	1.6	1.5	1.3	1.2	1.1	1.1	Booking by Israelis	0.4	0.6	1.1	0.7	0.7	0.4
<b>Supply constraints</b>							<b>Supply constraints</b>						
Machinery and equipment shortage	0.2	0.2	0.3	0.3	0.4	0.3	Economic and political situation in Israel	1.4	1.4	1.2	1.2	1.2	1.0
Financing difficulties	0.8	0.8	0.7	0.6	0.5	0.5	Intensification of competition	1.8	1.9	1.7	2.1	1.7	1.9
Labour shortage	0.4	0.5	0.6	0.6	0.6	0.6	<b>Supply constraints</b>						
							<b>Supply constraints</b>						
							Financing difficulties						
							Labour shortage						

Construction							Hotels						
	2008		2009		2010			2008		2009		2010	
	I	II	III	IV	I	II		I	II	III	IV	I	II
<b>Demand constraints</b>							<b>Demand constraints</b>						
Volume of demand	2.4	1.7	1.5	1.5	1.5	1.7	Booking by foreign tourists	2.9	2.6	2.3	2.1	1.3	1.2
<b>Supply constraints</b>							<b>Supply constraints</b>						
Input prices	0.8	1.2	1.1	1.1	1.1	1.1	Booking by Israelis	2.2	1.8	1.5	1.4	1.2	0.9
Financing difficulties	1.9	1.7	1.6	1.6	1.0	1.1	Economic and political situation in Israel	2.9	2.1	1.7	1.7	1.1	1.4
Labour shortage	1.7	1.9	1.9	2.4	1.9	2.0	<b>Supply constraints</b>						
Machinery and equipment shortage	0.2	0.3	0.3	0.3	0.4	0.2	<b>Supply constraints</b>						
Land lot Prices						2.5	Financing difficulties						
							Labour shortage						

Trade							Service Industries						
	2008		2009		2010			2008		2009		2010	
	I	II	III	IV	I	II		I	II	III	IV	I	II
<b>Demand constraints</b>							<b>Demand constraints</b>						
Volume of orders	0.6	0.3	0.5	0.9	0.6	0.7	Economic and political situation in Israel	1.3	1.1	1.0	0.9	0.8	1.0
Economic and political situation in Israel	2.2	1.5	1.4	0.9	0.7	0.7	Global Economic situation	2.1	1.7	1.4	1.3	1.2	1.3
Economic situation in the world	2.2	1.4	1.4	0.9	0.9	0.8	Intensification of competition	1.8	1.6	1.6	1.6	1.6	1.6
<b>Supply constraints</b>							<b>Supply constraints</b>						
Financing difficulties	1.6	1.4	1.1	0.9	0.6	0.6	<b>Supply constraints</b>						
Labour shortage	0.4	0.6	0.5	0.7	0.7	0.5	Financing difficulties						
							Labour shortage						

## APPENDIX

### Notes to the Survey

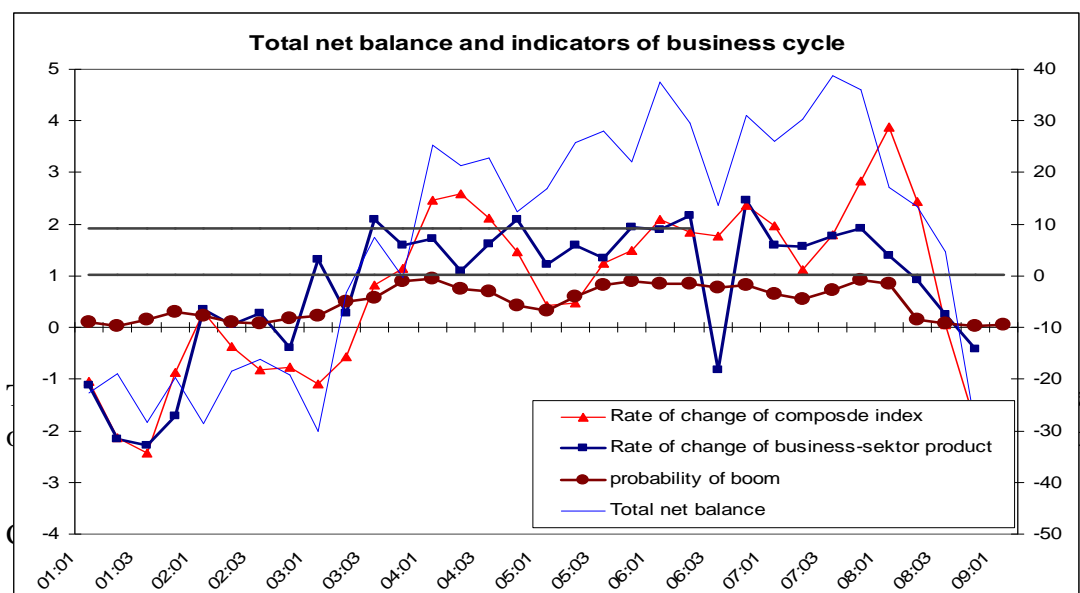
#### Net balance

This quarterly survey relates to developments in 2010:Q2 and includes assessments and expectations regarding 2010:Q3. The survey's findings are based on responses to questionnaires completed by companies and businesses in the manufacturing, commerce, construction, hotels, transport and communications, and business services industries. The questions are qualitative: The companies were asked to report on the direction of changes in the different variables (increase, decrease, or no change) and the degree of change (great, slight). The survey is intended to serve decision-makers as an updated analytical tool that complements the quantitative data.

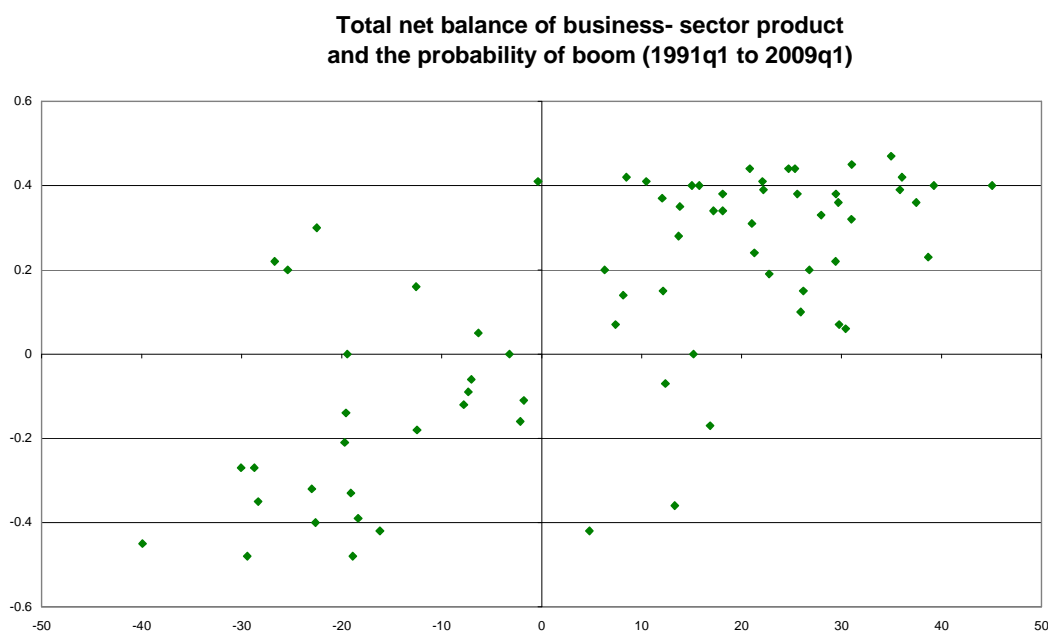
In all industries except for the hotel industry, companies were asked to indicate the actual change compared with the previous quarter, without seasonal or other adjustments. In the hotel industry, companies were asked to report the change from the year-earlier quarter. Although the results are not weighted by company size, in the analysis of the results in manufacturing and construction the main results are also shown with the companies grouped by size.

The results are analyzed by means of the net balance, defined as the difference between the percentage of companies reporting an increase and the percentage of those reporting a decrease. A net balance of zero in a particular category shows that there was no change in the level of that category compared with the previous quarter. A negative balance indicates a decrease, and a positive balance, an increase.

The standard deviation is affected among other factors by the number of observations in the sample and the distribution of the responses in each category. The fewer the number observations, the greater is the standard deviation. The data on net balances are based on a summation of the answers of all the companies that responded, and not only those that participated in the most recent surveys. The data in all the tables are in terms of the percentage of the companies that responded.



The total net balance is calculated by weighting the seasonally-adjusted net balance of activity in all industries by each industry's share in total business-sector product. The balance enables the indicators of the business cycle to be predicted successfully. These indicators are classified each quarter into one of three categories: recession, boom, or undefined. One of the indicators of the business cycle is the trend in business-sector product. Another indicator used to identify the business cycle is the Composite State-of-the-Economy Index and the probability of a recession: A period will be defined as a recession if the Composite Index indicates a greater-than-0.5 probability of recession in at least two of the three quarters examined. If this situation does not exist, nor the opposite situation in which the probability of a recession is less than 0.5 in at least two the three quarters examined, the period will be considered as undefined regarding the trend in activity. Research indicates that the net balance of the business sector matches the business cycle according to the above definitions: When the net balance is positive and greater than 9, the Composite State-of-the-Economy Index and the probability of a recession indicate a boom and the trend in business-sector product is positive. When the net balance is negative the trend is toward a recession, and when the net balance is between 0 and 9, the period is undefined.



An examination of the survey's findings revealed that a clear relationship exists between the net balance of industries' activity, and the change in their activity as published by the Central Bureau of Statistics at a later date. The diagrams presented here exemplify this with respect to the total net balance. When the net balance is positive, the Composite Index and the probability of recession indicate a boom and a positive trend in business-sector product.

The net balances of activities in the transport and communications industry are calculated as the weighted average of the net balances of the separate components of

the industry, with each net balance weighted by the share of that component's product in the product of the entire industry. Since the standard deviation of the weighted balance is not available to us, it is not presented.

The net balances of manufacturing companies, classified by the share of skilled workers in each industry and its degree of technological innovativeness (the classification is described on pages 51-52 of the Bank of Israel 1999 *Annual Report*), are shown in Figure 9. The high-tech industries (chemicals, machinery, electrical and electronic equipment) account for 30 percent of the sample. The low-tech industries (food, beverages and tobacco; clothing, textiles, and leather; wood, paper, and printing; non-metallic minerals; iron, steel, and metal products; transport equipment: and diamonds) constitute 55 percent of the sample. The remaining 15 percent consists of medium-tech industries (mining and quarrying; rubber and plastics; and miscellaneous).

### **Leading index**

The leading index obtained from the Companies Survey estimates the probability of a slowdown in activity in the following quarter compared with the current quarter, or the probability of a recession in terms of growth cycles. The index is based on a Markov chain statistical model that expresses two situations—a high growth rate or a recession—and four transition possibilities between these situations: from a high rate of growth to a moderate rate, from a moderate rate to a moderate rate, from a moderate rate to a high rate, and from a high rate to high rate. The leading index describes the two probabilities of a slowdown in accordance with two possible developments: continued activity at a moderate pace or a switch from rapid growth to a slowdown.

To estimate the probability that the pace of growth will moderate, each company's expectations for the following quarter are crossed with its assessment regarding the current quarter, and four dependent modes expressing the change in the existing situation are calculated (Table 1). Accordingly, from the companies that reported an increase in activity for the current quarter, a calculation is made of the percentage of companies expecting the increase to continue in the next quarter and the percentage of companies expecting their activity to decrease. From the companies reporting a decrease in their activity in the current quarter, a calculation is made of the percentage of companies expecting the decrease to continue in the next quarter and the percentage of companies expecting their activity to increase. The companies reporting an improvement in their current activity include those that reported an improvement one or two quarters previously, and then reported no change. Similarly, the companies reporting a decrease in their current activity include those that reported a decrease one or two quarters previously and then reported no change. This makes it possible to monitor gradual rather than sudden shifts in activity that develop over two to three quarters and not within a single quarter.

The probabilities of a change in the pace of growth are calculated from the normal probability function based on the parameters in Table 1 below. In addition, the model assumes dependency between the quarters, with the result that the forecast

for the following quarter is dependent on the estimate obtained for the current quarter.

To conclude, the leading index provides an indication of the state of activity in the next quarter.

**Table 1: Averages and Standard Deviations of Dependent Frequencies by Industries in the survey (sample: 1991-2005)**

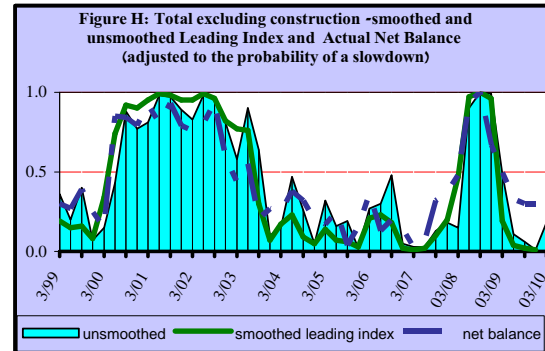
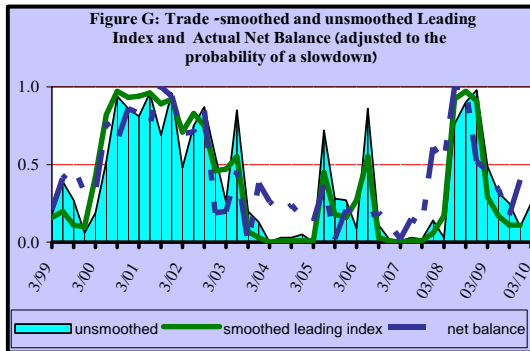
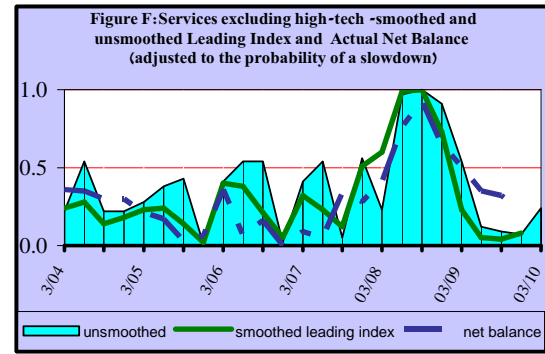
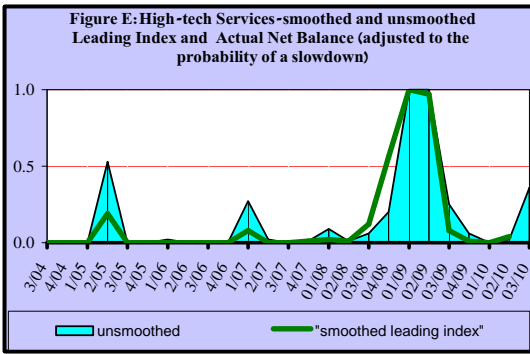
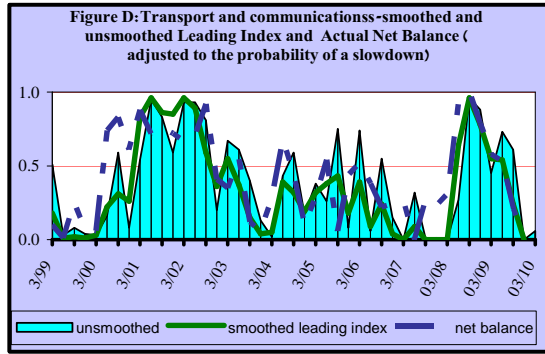
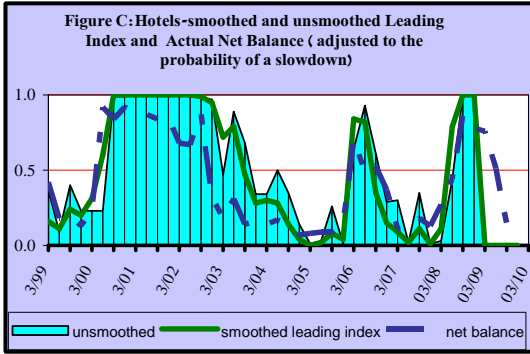
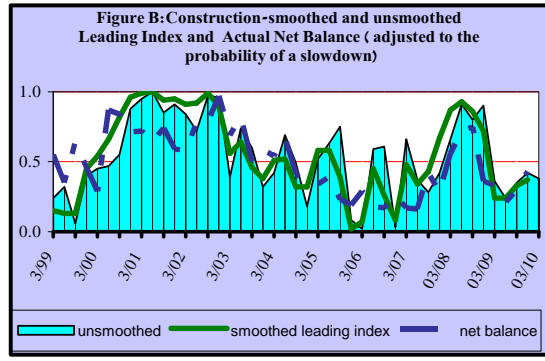
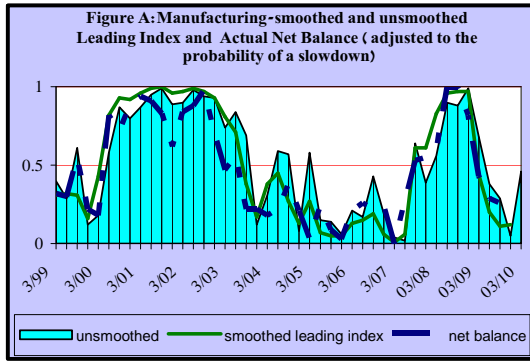
Number of companies <sup>b</sup>	Continued slowdown		slowdown-acceleration		Acceleration-slowdown		Continued acceleration		Industry
	average	standard deviation	average	standard deviation	average	standard deviation	average	standard deviation	
257	0.45	0.07	0.11	0.04	0.14	0.04	0.30	0.06	Manufacturing
33	0.23	0.13	0.25	0.11	0.15	0.08	0.37	0.11	Trade
46	0.42	0.16	0.10	0.10	0.12*	0.11	0.36	0.14	Hotels
20	0.26*	0.17	0.19*	0.14	0.12*	0.10	0.43	0.19	Transport
41	0.42	0.15	0.12*	0.09	0.06*	0.06	0.40	0.13	Construction
144	0.35	0.10	0.15	0.07	0.09*	0.06	0.41	0.08	Services <sup>a</sup>
541	0.41	0.08	0.13	0.05	0.13	0.04	0.33	0.07	Total survey

a In services the sample is from 1998 only.

The number of companies in this table does not necessarily match that published in the Bank of Israel

<sup>b</sup> Review, as companies that did not report on expectations alongside their report on current activity were excluded.

\* Indicates non- significant result (at 10 percent level).



Actual Net Balance, adjusted to the probability scale, is represented by the hatched line graph and the probability of a slowdown in activity is represented by the line graph and the unsmoothed leading index is represented by the shaded area