



Small, savvy, high-tech firms preponderate among Israeli multinationals, survey finds

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Release of the second ranking of Israeli outward investors

Jerusalem and New York, September 2nd, 2009

The second annual survey of Israeli multinational enterprises (MNEs) is being released today. It was conducted by a joint team composed of the Manufacturers Association of Israel, Tel Aviv University, Hebrew University and the Vale Columbia Center on Sustainable International Investment (VCC), a joint undertaking of Columbia Law School and The Earth Institute at Columbia University in New York.¹ The survey is part of a long-term, multi-country study of the rapid global expansion of multinational enterprises (MNEs) from emerging markets. The results released today cover the year 2007, although some information on 2008 is also provided.

In 2007, Israel's top 20 MNEs – ranked by foreign assets – had over USD 12 billion in foreign assets (table 1), over USD 26 billion in foreign sales (including exports), and employed nearly 68,000 persons abroad. Foreign assets, sales and employment had increased by 33%, 8% and 24%, respectively, since 2006 (table 2). Four firms, Israel Chemicals, Amdocs, Teva and Ormat, together accounted for 60% of the total foreign assets of the top 20.

An important clarification is in order. The report speaks of 'the top 20' for convenience. It is not in fact possible to be certain that the 20 companies listed in table 1 below are *the* largest Israeli investors abroad. Data on all likely candidates, in particular on privately owned firms, was not available. What the researchers are certain of is that these 20 are very close to being the largest.

Table 1. Ranking of the top 20 Israeli multinationals, 2007
(USD million)

Rank	Name	Main industry	Foreign assets
1	Israel Chemicals	Chemicals	2,405
2	Amdocs	IT services	1,948

¹ The Manufacturers Association of Israel is represented in the project by its Foreign Trade Division; Tel Aviv University by the Recanati School of Business Administration; and Hebrew University by the Jerusalem School of Business Administration.

3	Teva	Pharmaceuticals	1,723
4	Ormat	Power stations	1,226
5	CheckPoint	IT services	830
6	Strauss Elite	Food products	689
7	Zoran	IT services	664
8	NICE	IT services	546
9	Makhteshim-Agan	Chemicals	546
10	Ness Technology	IT services	486
11	Frutarom	Food products	470
12	Elbit	Electronic and optical products	163
13	Delta Galil	Wearing apparel	137
14	Audiocodes	IT services	114
15	Plasson	Plastic pipes and valves	84
16	Lumenis	Laser technology	76
17	Israel Aviation Industries	Aviation and aircraft maintenance	61
18	Gilat	Satellites	34
19	Orbotech	Electronic and optical equipment	29
20	Tefron	Wearing apparel	8
TOTAL			12,239

Source: Israeli-Vale Columbia Center ranking of Israeli multinationals.

Profile of the top 20

- With the exception of Israel Aviation Industries, all 20 firms included in the survey (see table 1) are private-sector firms, listed on one or more stock exchanges, including the Tel Aviv Stock exchange, the New York Stock Exchange and NASDAQ. Israel Aviation Industries is state-owned.
- Firms that met the following criteria were included in the survey: firms that had at least one foreign affiliate, had foreign assets in excess of USD 5 million, and were not themselves owned by foreign corporations. Financial firms, including banks, were excluded, in accordance with the methodology of the project. Privately owned, i.e., unlisted, firms were excluded because data on these firms was very difficult to get. Conglomerates were excluded to ensure that this year's and last year's reports followed the same pattern. In the future, however, conglomerates will be included, so as to bring the report into line with the common methodology being used by project partners in other countries. Finally, what are often regarded as some of Israel's leading multinationals – Mercury, Iscar, Scitex Vision and Indigo – had to be excluded because they have been acquired by foreign multinationals.
- The size distribution of the twenty leading multinationals is lopsided. Only four firms have foreign assets exceeding USD 1 billion and only nine have foreign assets exceeding USD 500 million. Israel Chemicals, which heads the list, is a diversified supplier of agricultural chemicals. Teva, often regarded as Israel's leading multinational, is a global supplier of generic pharmaceuticals, while Ormat is a worldwide leader in the construction and operation of environmentally friendly power stations. Only one of the six suppliers of IT services on the list makes it into the billion-plus group: Amdocs. The foreign assets of the top 20 Israeli multinationals were equal to roughly one quarter of Israel's total outward FDI stock (annex figure 4).

- The industrial composition of Israel's top MNEs reflects the country's resource endowment. High-tech industries (e.g., laser technology) and sophisticated services (e.g. IT services) represent 40% of the foreign assets on the list.
- Israel is renowned for its IT services industry. It is consequently hardly surprising that six of the firms included in the top 20 are suppliers of IT services, while several others offer related products and services, including Elbit, which supplies a wide range of defense electronic hardware, Orbotech, which produces computerized inspection equipment, and Gilat, which produces and services communication satellites.
- Industries characterized by comparatively high investment in R&D (e.g., IT services and pharmaceuticals) represent 54% of the foreign assets of the top 20 (annex figure 1).
- Traditional industries such as clothing and food products account for a small share of Israel's multinationals. Only one firm, Israel Chemicals, manufactures natural-resource-based products.

Table 2. Snapshot of Israeli's 20 largest MNEs, 2006-2007 (USD billion and thousands of employees)			
	2006	2007	% change 2006-07
Assets			
Foreign	9	12	33
Total	20	19	-5
<i>Share of foreign in total (%)</i>	45	63	
Employment			
Foreign	63	68	8
Total	113	120	6
<i>Share of foreign in total (%)</i>	56	57	
Sales			
Foreign including exports	21	26	24
Total	25	30	20
<i>Share of foreign in total (%)</i>	84	87	
TNI INDEX			
	62	69	11

- Table 2 contains aggregate data on total and foreign assets, employment and sales in 2006 and 2007 of the twenty firms included in the survey (detailed firm data appear in annex table 1) These figures represent the three components of the Transnationalization Index (TNI) employed by UNCTAD to denote the level of globalization, or foreign involvement, of individual firms, entire industries or other groupings of firms. The index, which can theoretically vary between zero and one hundred, is calculated as the non-weighted average of three ratios: foreign to total assets, foreign to total employment, and foreign to total sales. Inclusion of all three ratios in the index makes intuitive sense since no single measure can be claimed to represent, on its own, the concept of foreign involvement, which the Index seeks to capture. The share of foreign value added can be claimed to come closest to representing foreign involvement, but the measure has been rarely used for two reasons: foreign value added ignores exports from the home country, which often accounts for a substantial share of firms' foreign involvement, and the data on value added is notoriously difficult to obtain.
- The aggregate TNI index of the surveyed firms, shown at the bottom of the table, has increased from 62 in 2006 to 69 in 2007, the last year before the global economic crisis broke. The highest global involvement is reflected in sales figures, with foreign shares in

total sales of 84% in 2006 and 87% in 2007. The share of foreign employment was stable, in the mid-50s, increasing only by about 2%. The highest growth rate was exhibited by the ratio of foreign to total assets, which increased from 45% in 2006 to 63% in 2007. The increase in the ratio of foreign to total assets represents, more than any other single measure, the growing resource commitment by Israeli multinationals to their foreign operations.

- Annex table 3 and annex table 4 list the largest individual FDI transactions by Israel-based multinationals during the years 2006, 2007 and 2008. Annex table 3 contains figures on the top 10 outward merger and acquisitions transactions. The list is headed by the acquisition in January 2006 of the US based IVAX Corporation by Teva, Israel's leading pharmaceuticals company. The price paid for Ivax, which exceeded USD 7 billion, accounted for nearly two-thirds of the total M&A value reported in the table. Two years later, Teva spent USD 400 million on the acquisition of CoGenseys Inc., another US-based pharmaceuticals company. These acquisitions explain why Teva is considered Israel's leading multinational. Acquisitions by Nice Systems and Israel Chemicals are the only others involving Israel's leading multinationals listed in table 1. The remaining acquisitions were made by firms engaged in tourism, travel, real estate, and various other kinds of services.
- The top ten Greenfield investments shown in annex table 4 (also in the years 2006, 2007 and 2008) exhibit a very different orientation from that exhibited by the M&A transactions shown in annex table 3. The transactions are overwhelmingly in real estate operations, in the emerging markets of Eastern Europe. The only transactions in activities other than real estate are Teva's investment in India and the Israel Corporation's investment in China. These two transactions are also the only Greenfield investments made outside Eastern Europe. It is quite likely that the companies shown in annex table 4 have been hit particularly hard by the economic crisis of the following years.
- The top 20 multinationals have 545 foreign affiliates (annex table 2), implying an average of 27 affiliates per firm. Israel Chemicals heads this list, with 191 foreign affiliates, followed by CheckPoint, with 62 foreign affiliates.
- These affiliates are located mostly in Europe (51%) and North America (26%), as revealed in the Regionality Index and the geographic distribution of affiliates (annex figure 2). As was the case last year, there are virtually no affiliates in Africa. However, the number of affiliates in Asia has more than doubled, the number in North America nearly doubled, and the number in Europe increased by almost 80%. There has been no change in Latin America and an increase from 2 to 4 in Africa.
- FDI flows in both directions reached their peak in 2006, at nearly USD 15 billion. In 2007, they fell sharply, to USD 9 billion for inflows and USD 7 billion for outflows. Surprisingly, this negative trend did not continue in 2008, in spite of the worsening global economic crisis. Instead, incoming FDI increased slightly to almost USD 10 billion, while outgoing FDI rose to nearly USD 8 billion (annex figure 3). The stock of outward FDI, which was about USD 41 billion at the end of 2006, increased to nearly USD 48 billion in 2007, over USD 51 billion at the end of 2008 and over USD 52 billion at the end of the first quarter of 2009. Likewise, the stock of incoming FDI, which was USD 48 billion at the end of 2006, increased to nearly USD 56 billion in 2007, and continued to rise during the following year, surpassing USD 58 billion at the end of the first quarter of 2009 (annex figure 4).

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Emerging Markets Global Players Project

This Israeli -Vale Columbia Center ranking of Israeli multinational enterprises was conducted in the framework of the Emerging Markets Global Players Project, a collaborative effort led by the Vale Columbia Center. It brings together researchers on FDI from leading institutions in emerging markets to generate annual ranking lists of emerging market MNEs. Visit <http://vcc.columbia.edu/projects/> for further information.

The Israeli Team

The survey of Israel's leading multinational firms is a joint endeavor of the Foreign Trade Division of the Manufacturers Association of Israel, headed by Mr. Dan Catarivas (www.industry.org.il) and the two leading business schools in Israel. The project is headed by Professor Seev Hirsch from the Recanati School of Business Administration at Tel Aviv University (www.recanati.tau.ac.il), together with Dr. Niron Hashai from the Jerusalem School of Business Administration at the Hebrew University (bschool.huji.ac.il) and Mr. Omer Katz from the Recanati School of Business Administration at Tel Aviv University.

Vale Columbia Center on Sustainable International Investment

The Vale Columbia Center on Sustainable International Investment, headed by Dr. Karl P. Sauvant, is a joint Columbia Law School – Earth Institute venture at Columbia University. It seeks to be a leader on issues related to FDI in the global economy, paying special attention to the sustainability aspect of this investment. The Center focuses on the analysis and teaching of the implications of FDI for public policy and international investment law. Its objectives are to analyze important topical policy-oriented issues related to FDI, develop and disseminate practical approaches and solutions, and provide students with a challenging learning environment. For more information, see <http://vcc.columbia.edu>.

Annex table 1. Ranking of the top 20 Israeli multinationals, key variables, 2007
(USD million and numbers of employees)

Rank	Company	Industry	Assets		Employment		Sales		TNI Index (%)	No. of foreign affiliates
			Foreign	Total	Foreign	Total	Foreign	Total		
1	Israel Chemicals	Chemicals	2,405	4,751	4,997	9,914	3,856	4,100	65	191
2	Amdocs	IT services	1,948	2,175	11,390	17,461	2,492	2,836	81	21
3	Teva	Pharmaceuticals	1,723	2,515	22,378	27,912	9,034	9,408	82	30
4	Ormat	Power stations	1,226	1,475	494	494	316	316	94	3
5	CheckPoint	IT services	830	882	1,104	1,901	411	731	69	62
6	Strauss Elite	Food products	689	1,087	6,684	11,134	804	1,458	60	18
7	Zoran	IT services	664	838	924	1,421	479	507	80	11
8	NICE	IT services	546	624	1,249	2,172	367	517	72	19
9	Makhteshim-Agan	Chemicals	546	554	1,725	3,239	1,979	2,081	82	22
10	Ness Technology	IT services	486	693	5,035	8,280	359	562	65	24
11	Frutarom	Food products	470	566	1,095	1,499	328	368	82	37
12	Elbit	Electronic and optical products	163	981	56	1,748	1,573	1,982	33	8
13	Delta Galil	Wearing apparel	137	173	8,058	9,700	575	647	84	18
14	Audiocodes	IT services	114	137	263	688	148	158	72	20
15	Plasson	Plastic pipes and valves	84	335	0	1,219	185	206	38	18
16	Lumenis	Laser technology	76	82	638	948	199	268	78	10
17	Israel Aviation Industries	Aviation and aircraft maintenance	61	473	38	15950	2719	3316	32	8
18	Gilat	Telecommunications	34	110	578	970	40	283	35	7
19	Orbotech	Electronic and optical products	29	571	822	1611	358	361	52	10
20	Tefron	Wearing apparel	8	75	860	2,087	154	159	50	8
	Total		12,239	19,097	68,388	120,348	26,376	30,264	64	545

Source: Israeli-Vale Columbia Center survey of Israeli multinationals.

Annex Table 2. The Top 20 Israeli MNEs: Regionality Index^a, 2007

Name	Europe	North America	Latin America & the Caribbean	Asia & Australia	Africa	No. of foreign affiliates
Israel Chemicals	55	28	3	13	1	191
Amdocs	47	47	0	6	0	21
Teva	40	50	10	0	0	30
Ormat	33	67	0	0	0	3
CheckPoint	61	12	5	22	0	62
Strauss Elite	56	39	5	0	0	18
Zoran	18	27	0	55	0	11
NICE	44	28	0	28	0	19
Makhteshim-Agan	64	9	27	0	0	22
Ness Technology	62	21	0	17	0	24
Frutarom	74	16	5	5	0	37
Elbit	38	62	0	0	0	8
Delta Galil	39	33	0	17	11	18
Audicodes	30	25	15	30	0	20
Plasson	70	12	6	12	0	18
Lumenis	50	20	0	30	0	10
Israel Aviation Industries	37	37	0	26	0	8
Gilat	14	29	57	0	0	7
Orbotech	50	10	0	40	0	10
Tefron	0	50	38	12	0	8
Total no. of affiliates	279	143	29	90	4	545

Source: Israeli-Vale Columbia Center survey of Israeli multinationals.

^aThe Regionality Index is calculated by dividing the number of a firm's foreign affiliates in a particular region of the world by its total number of foreign affiliates and multiplying the result by 100.

Annex table 3. The top 10 Israeli outward merger and acquisition (M&A) transactions, 2005 - February 2008
(USD million)

Date	Acquirer's name	Target name	Target industry	Target country	% of shares acquired	Value of transaction
01/26/2006	Teva	IVAX Corp	Pharmaceuticals	United States	100	7,367
04/16/2007	Investor Group	RBS Group PLC-Marriot Hotels	Hotels and motels	United Kingdom	100	2,171
03/02/2007	Delek Real Estate	RoadChef Motorways Ltd	Eating places	United Kingdom	100	734
04/30/2007	Africa Israel Investments	NY Times Bldg, New York, NY	Operators of nonresidential buildings	United States	100	525
02/21/2008	Teva	CoGenesys Inc	Pharmaceutics	United States	100	400
08/14/2007	Israel Chemicals	Supresta LLC	Chemicals	United States	100	352
12/07/2006	Delek Capital	Republic Cos Group Inc	Insurance	United States	100	290
08/30/2007	NICE Systems	Actimize Inc	Prepackaged software	United States	100	279
01/20/2006	Crawford Properties	Hornbach Holding AG-DIY(7)	Hardware stores	Germany	100	267
Total						12,385

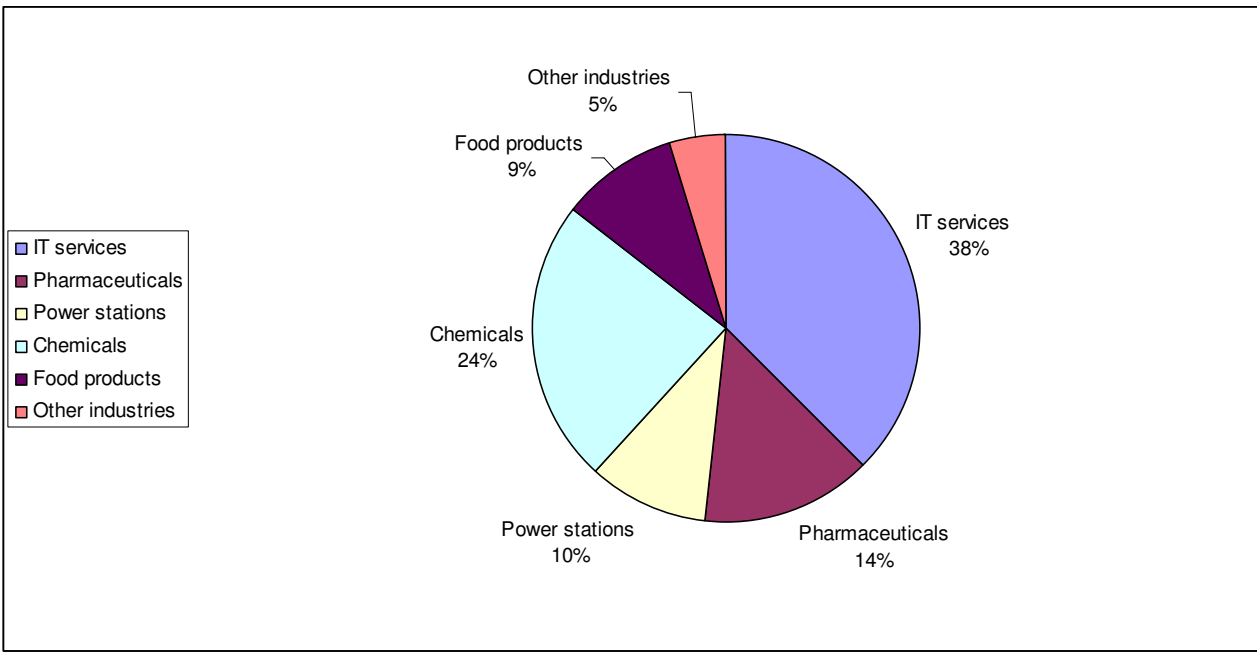
Source: Thomson Financial.

Annex table 4. The top 10 Israeli cross-border greenfield transactions, announced, 2006- January 2008
(USD billion)

Date	Company	Destination	Industry	Value
<i>Dec-06</i>	BCD Group	Czech Republic	Real estate	1.00
<i>Nov-06</i>	Africa Israel Investments	Russia	Real estate	0.95
<i>Apr-06</i>	Fishman Group	Russia	Real estate	0.90
<i>Dec-07</i>	Elbit Imaging	Romania	Real estate	0.88
<i>Jan-08</i>	Israel Corp (IC)	China	Automotive OEM	0.80
<i>Jul-07</i>	Africa Israel Investments	Russia	Real estate	0.47
<i>Dec-06</i>	IDB Group	USA	Real estate	0.40
<i>Mar-07</i>	Gazit Globe	Bulgaria	Real estate	0.26
<i>Jan-08</i>	Teva Pharmaceutical Industries	India	Pharmaceuticals	0.25
<i>Jul-07</i>	SFK	Croatia	Real estate	0.22
	Total			6.13

Source: FDI Intelligence – Financial Times Ltd.

Annex figure 1. Breakdown of the top 20's foreign assets, by industry, 2007

 <p style="text-align: center;">Industry</p>	<p style="text-align: center;">Foreign assets (USD million)</p>	<p style="text-align: center;">Companies</p>
IT services	4,588	Amdocs, CheckPoint, Ness Technology, Zoran, NICE, Audiocodes
Pharmaceuticals	1,723	Teva.
Power stations	1,226	Ormat
Chemicals	2,405	Israel Chemicals, Makhteshim-Agan
Food products	1,159	Strauss Elite, Frutarom
Other industries	592	Elbit, Delta Galil, Tefron, Gilat, Plasson, Lumenis, Israel Aviation Industries, Orbotech

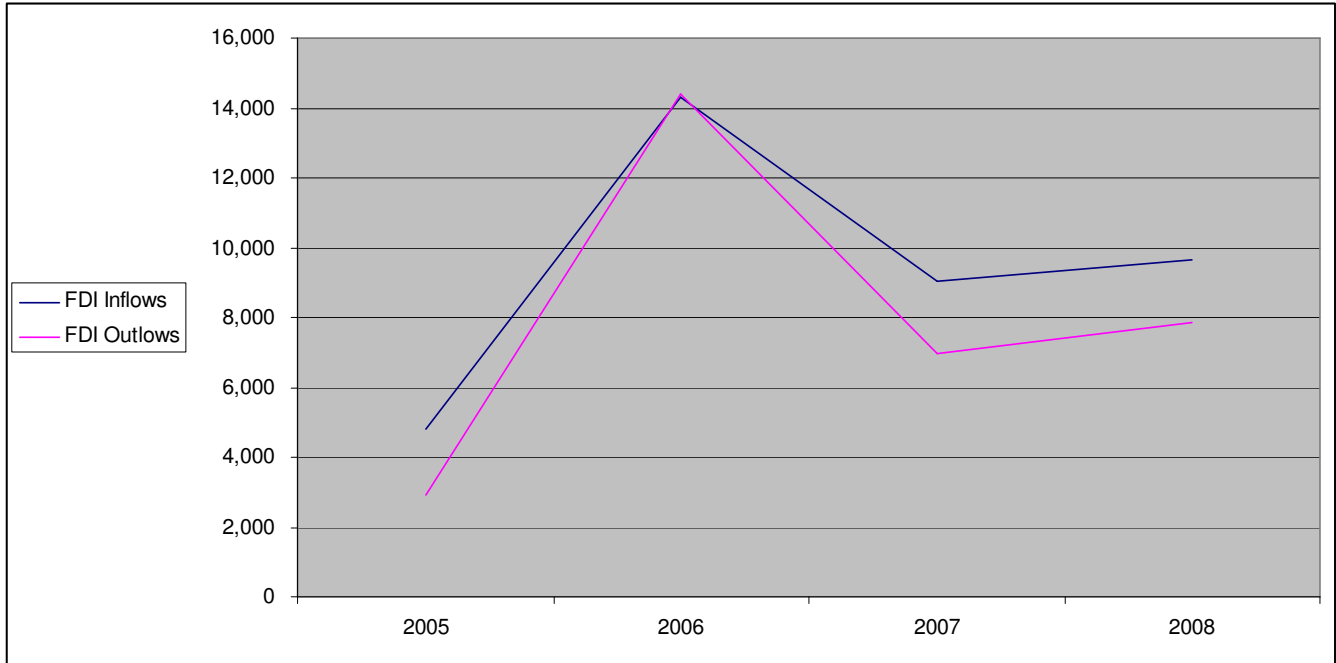
Source: Israeli-Vale Columbia Center survey of Israeli multinationals.

Annex figure 2. Foreign affiliates of Israel's top 20 multinationals, by region, 2007
(Number of affiliates)



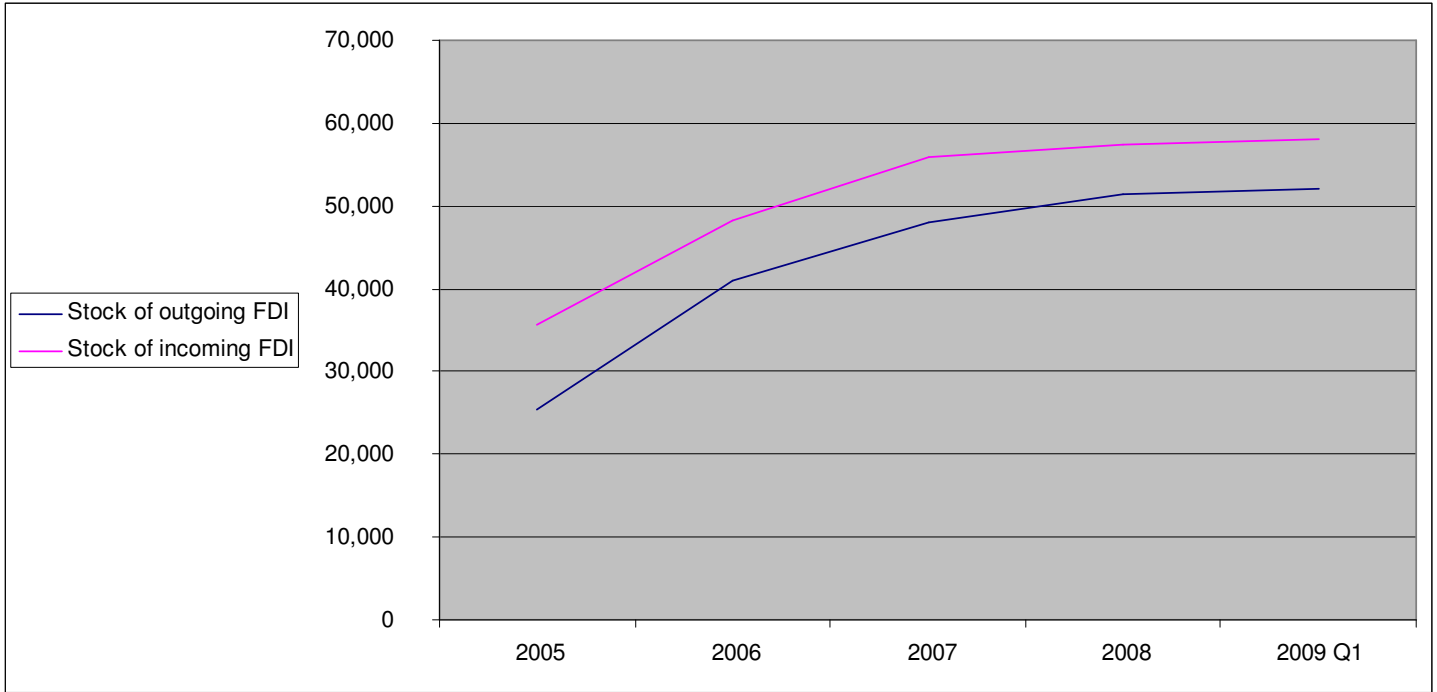
Source: Israeli-Vale Columbia Center survey of Israeli multinationals.

Annex figure 3. FDI outflows from, and inflows into, Israel, 2005-2008
(USD million)



Source: Accountant General's Office (Ministry of Finance).

Annex figure 4. Israel's outward and inward FDI stock, 2005-2009Q1
(USD million)



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Source: Accountant General's Office (Ministry of Finance).