

TUCK SCHOOL OF BUSINESS AT DARTMOUTH

CENTER FOR  
PRIVATE EQUITY  
AND ENTREPRENEURSHIP

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## Note on Private Equity in Israel

Although Israel has a relatively small population of six million, the country is the second largest supplier of NASDAQ-listed companies after the US and Canada.<sup>1</sup> Despite many security risks, constant political turmoil, and significant geographical distance from any major consumer markets, the Israeli people have demonstrated an ability to adapt to a challenging environment while building superior companies. The Israeli culture, psyche, military experiences, ambition, and entrepreneurial drive create a multitude of opportunities for investors.

This note was developed using various sources including academic reports, business media articles, and extensive interviews with Israeli private equity professionals. It will describe the various factors that resulted in Israel's emergence as an innovative economic force. A unique combination of cultural traits, government intervention, increased immigration, and macroeconomic factors propelled this achievement and the country's private equity market played a significant role.<sup>2</sup> Economic trends produced a solid base for entrepreneurship and business formation (see Exhibit 1). Venture capital became available to fuel growth and value was realized through stock markets and strategic sales. More recently, late stage growth capital and leveraged buyouts are becoming more common.

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<sup>1</sup> Nasdaq.com listings (as of 7/18/2005)

<sup>2</sup> The term "private equity" is meant to include both venture capital and leveraged buyouts.

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*This case was written by Elnor Rozenrot T'06 under the supervision of Adjunct Associate Professor Fred Wainwright of the Tuck School of Business at Dartmouth College. It was written as a basis for class discussion and not to illustrate effective or ineffective management practices.*

## Historical Development of Venture Capital

As a small country in a hostile security environment, Israel has always strived to maintain a strong military advantage over potential aggressors. Previous wars, weapon embargoes and general difficulties in acquiring necessary military technologies have all taught the country's inhabitants an important lesson: self-reliance. The Israeli technology industry is a result of that lesson.

For example, Israel fought the Six Day War of 1967 mostly with French weaponry systems. After the war, French president DeGaulle imposed an arms embargo on Israel. As a consequence the Israelis turned to the United States and made self-sufficiency a national goal. When the United States did not supply Israel with the quality and scope of weapons it needed during and after the 1973 Yom-Kippur War, Israel placed an even greater emphasis on self sufficiency.<sup>3</sup>

The effort for military independence reached its limits in the mid 1980s, when Israel tried to develop the Lavi jet fighter. The cost proved beyond the state's capabilities and the project was abandoned causing hundreds of engineers with experience in cutting edge technologies such as aerodynamics, avionics, and electronics to flood into the marketplace.

Although some of those engineers emigrated and ended up in technology hubs such as Silicon Valley, a large portion remained in the country and joined new projects. The demise of the Lavi fighter project has been described as a powerful boost to the Israeli high-tech industry. After Lavi, Israeli defense industries shifted their focus to components, electronics, avionics, and other systems to be installed in acquired American or other platforms, while arranging reciprocal procurement agreements with leading aerospace and military manufacturers. Development of these auxiliary systems provided local technology industries an advantage in producing civilian spin-offs in security, electronics, software, and the burgeoning internet sector.

The fall of the Soviet Union in 1991 produced a tremendous economic boost for Israeli businesses. A wave of immigration from the former Soviet republics included many talented and skilled scientists and engineers with advanced training from top universities (see Exhibit 2). The Israeli government responded by developing a technology incubator program to provide these newcomers with employment and harness their talents. The immigrants helped fuel Israel's GDP growth from \$11,000 per capita in 1990 to \$17,000 per capita in the year 2000 while increasing the business sector product growth by 107%.<sup>4,5</sup>

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<sup>3</sup> "How Israeli High-Tech Happened," *Israel's Business Arena*, August 15, 2000

<sup>4</sup> "Business-Sector Product, by Principal Industries, 1961 – 2004," Bank of Israel Annual Report 2004 – Statistical Appendix, 2004

<sup>5</sup> Klein, "The Israeli Economy, 1990-2000: Strategy for Change And Recent Developments," Bank Of Israel, December 7, 2000

This growth was not easy. Sixty percent of incubator projects failed to raise additional capital and had to shut down.<sup>6</sup> Israeli officials recognized that despite massive government support for R&D there were clear “market and system failures,” which blocked the successful creation and development of startups. These system failures were attributed to insufficient post-R&D follow-up financing and weak management. It became clear that a venture industry needed to develop in Israel. A shift in government policy objectives gradually took place - from promotion of R&D to enhancement of startup formation, survival, and growth.

The first VC oriented program was Inbal and it launched in 1992. Inbal was a government owned insurance company that gave partial (70%) guarantees to VC funds. Inbal provided downside protection, which favored the entry of inexperienced professionals into the industry and the formation of new VC firms. Only four firms emerged. The program was designed and implemented by Treasury officials who had no specific technology knowledge and emphasized ongoing portfolio company financial results rather than long-term investing in growth companies. In addition, there was limited interaction with relevant stakeholders and a very limited consensus among interested parties so the program failed to incubate a VC industry.

Yozma was the second program, started in 1993, and it was a huge success. The program was designed and implemented by the Office of the Chief Scientist at the Ministry of Industry and Trade, which was skilled in promoting high tech industries. Yozma was the outcome of an interactive policy process that included the Treasury, the private sector, and foreign investors. The government participated in the formation of ten privately owned venture funds and contributed 40% of each fund’s capital. The focus was on seed and early stage investments in technology startups. Yozma was structured to attract international investors and experts. Each fund had local managers working in joint ventures with reputable foreign financial institutions, often US-based VC firms.<sup>7</sup>

Yozma sought a “critical mass” of capital to foster the local VC industry. The program target was \$250 million, of which \$100 million would be government capital. Fund managers had a strong incentive to succeed – the government granted an option for its share to be bought out by each fund manager at cost within 5 years making the VCs completely private by 1998. These incentives attracted talented individuals and teams. By providing a strong incentive for collective learning, VC cooperation, and 'learning from others' (through the requirement of having a reputable foreign financial institution) Yozma was catalytic. By 1998, fund privatization was completed. Yozma funds led to the launch and development of many new VC firms in Israel. At its peak, the VC industry in

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<sup>6</sup> Avnimelech, Teubal, “Evolutionary Innovation and High Tech Policy: What can we learn from Israel's Targeting of Venture Capital?,” Working report, Samuel Neaman Institute for Advanced Studies in Science and Technology, STE-WP 25, March 2005

<sup>7</sup> Avnimelech, Teubal, “Evolutionary Innovation and High Tech Policy: What can we learn from Israel's Targeting of Venture Capital?,” Working report, Samuel Neaman Institute for Advanced Studies in Science and Technology, STE-WP 25, March 2005

Israel had over 100 firms in the 1990s.<sup>8</sup> Total capital raised during the 1993-2000 period was \$9.4 billion.<sup>9</sup> Global financial and strategic investors came to Israel and the performance of both the original and subsequent follow-on funds attracted even more capital (see Exhibits 3 and 4). Today, most of the original Yozma funds are among the twenty leading VC firms, and managers of those funds were involved in creating the Israel Venture Association.

Today, traditional industries such as textiles are disappearing due to low-cost overseas competition. However, high-tech industries, in which Israel enjoys a relative advantage due to its well trained workforce and new access to capital, will be a mainstay of the country's economic future. Thus Israel's economy is shifting from traditional industries intended to sustain local businesses to high-tech exports, which have been steadily rising.<sup>10</sup>

Exhibits 5, 6, and 7 present the Israeli VC industry's patterns of investment during the past eight years. On average, 54% of the investments in Israeli startups were by foreign VC companies, while the rest are investments of Israeli-based funds. Foreign institutional investors were also the dominant source of capital of Israeli VC funds. Seed investment was on average 6%, which is high compared to 1% in the U.S. and even less in Europe (VentureOne statistics). Seventy eight percent of the capital invested in Israeli startups during the 1996-2004 period was early stage and mid stage finance, while late stage was 16%. Moreover, the share of early stage finance decreased while that of mid stage finance increased over the same time period.

### Buyout Opportunities

Israel is transitioning from a state-dominated, centralized, and protectionist economy to a free market. Since a privatization process began in 1986, eighty two state-owned companies have been sold to public corporations or private owners. The government generated over \$8 billion in revenues from those sales.<sup>11</sup> Its resolve to continue privatization at an accelerated pace is creating significant opportunities for investors to buy good companies at substantial discounts.

Notable recent transactions include:

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<sup>8</sup> According to the Israeli Venture Capital Research Center; currently, approximately 80 VCs and corporate VCs operate in Israel, more than 350 foreign investors, Over 200 foreign VC funds, Over 30 corporate VCs and over 70 investment companies

<sup>9</sup> Avnimelech, Teubal, "Evolutionary Innovation and High Tech Policy: What can we learn from Israel's Targeting of Venture Capital?," Working report, Samuel Neaman Institute for Advanced Studies in Science and Technology, STE-WP 25, March 2005

<sup>10</sup> According to Ministry of Industry, Trade & Labor Foreign Trade Administration Investment Promotion Center, "Investment Climate in Israel, June 2005," Slide show, June 2005; Over the last ten years, hi-tech exports have tripled. During 2003, hi-tech exports comprised 36% of Israel's industrial exports a total of \$9 billion

<sup>11</sup> Ministry of Industry, Trade & Labor Foreign Trade Administration Investment Promotion Center, "Investment Climate in Israel, June 2005," Slide show, June 2005

- The sale of national telephone carrier Bezeq to Apax Partners
- The sale of Bank Hapoalim (Israel's largest bank) to an investor group
- The sale of stock in national airline carrier - El-Al to an investor group

In addition, Israel is currently undergoing several major changes that create interesting acquisition opportunities for buyout firms. Banks are ridding themselves of ownership collateral they amassed during the recent recession. Foreign investors are divesting holdings and shedding non-core businesses in Israel. Bellsouth's sale of its interest in Cellcom, the leading local cellular provider, is an example. Local individual investors are diversifying their holdings while established family-controlled businesses are selling non-core divisions. The aforementioned combination of factors has resulted in a vibrant M&A market with many opportunities.

### **The Future of Private Equity in Israel**

The following table applies a known model for determining the potential for further development of the private equity industry in Israel.<sup>12</sup> The ratings were compiled through conversations with Israeli private equity professionals. Subsequent text will describe certain factors in more detail. Exhibits 8 and 9 show Israel's rank in certain economic categories.

[see next page]

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<sup>12</sup> Based on comparison chart framework from - Wright, Kissane, Burrows, "Private Equity in EU Accession Countries of Central and Eastern Europe," *The Journal of Private Equity*, Summer 2004

**Table 1 – Factors in the Development of Private Equity in Israel**

| <b>Factor</b>                                 | <b>Relative Rating</b> | <b>Remarks</b>   |
|---|------------------------|--|
| <b>Supply of opportunities:</b>               |                        |  |
| Need to deal with family succession problems  | Medium                 |  |
| Need to restructure diversified conglomerates | Low                    | Not many conglomerates exist                             |
| Need to privatize state-owned companies       | High                   | Vast state holdings are being privatized                 |
| cope for “going private” transactions         | Low                    |  |
| Development stage of M&A markets              | Medium                 |  |
| R&D effort in country                         | Very high              | Supported by government                                  |
| Technologically trained professional base     | Very high              |  |
| Corporate based research                      | Very high              | Many foreign firms have local R&D operations             |
| Early-stage entrepreneurial activity          | Very high              |  |
| <b>Demand for private equity:</b>             |                        |  |
| Attitude to entrepreneurial Risk              | Very high              | Entrepreneurial nature with low opportunity costs        |
| Willingness of managers to buy                | Low                    | Normally owners are managers of businesses               |
| <b>Infrastructure to complete deals:</b>      |                        |  |
| Pool of investment capital                    | Very high              | Traditionally foreign LPs investing in local funds       |
| Early stage access to financial sources       | High                   |  |
| Venture capital market                        | Highly developed       | Local and international players seek local opportunities |
| Supply of debt                                | Medium                 | Up to 50% bank debt                                      |
| Intermediaries network                        | High                   |  |
| Favorability of legal framework               | High                   | Predictable results and compatibility with world         |
| Favorability of taxation regime               | Good                   | Reasonable tax and tax incentives                        |
| <b>Realization of gains:</b>                  |                        |  |
| Local stock markets                           | Low                    | Low valuation multiples and low liquidity                |
| Sales to local strategic buyers               | Medium                 | Low in technology market<br>High in buyout market        |
| Secondary buy-outs/restructuring              | Low                    |  |

*Availability of institutional capital*

The institutional capital market is currently going through major regulatory changes. For instance, until recently, pension plans purchased government bonds that promised a 6% annual yield. This matched the projected payout obligations to pensioners so plan sponsors had no incentive to search for better investments. Recently the Israeli treasury cancelled these bonds forcing institutional investors to actively seek alternative investments.

Local banks suffered from a deep recession. Their credit abilities were exhausted and their ability to lend growth capital to traditional buyers in the market was limited in light of over-exposure to these players' activities in the country. The local high-yield market is practically non-existent and bridging the funding gap with foreign bank loans is possible although the price of foreign loans incorporates the currency risk and results in higher interest rates that make this type of financing irrelevant for most businesses.

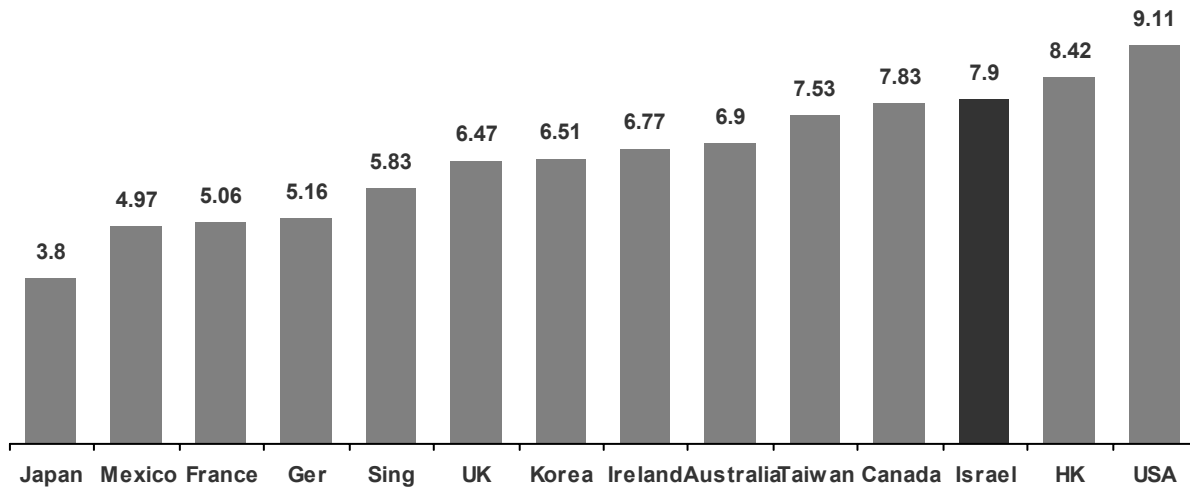
In spite of the substantial state support of R&D, local startups face a capital shortage ("the valley of death") at relatively early stage. In order to mitigate this problem, several VCs are investing in seed operations as well as companies in more advanced stages.

*Entrepreneurial climate*

Israelis believe they are the most entrepreneurial country in the world. Indeed, a strong drive to create, develop and grow businesses exists in the country. Childhood upbringing and military conscription emphasize individual thinking and finding solutions to problems. In addition, Israelis are forced into leadership opportunities at a young age. It is very common for 20-year old army commanders to be managing development teams, project groups, or numerous combat platoons of 30 men each.

Traditional corporate management career tracks are very rare. Since corporate salaries are relatively low and there are few possibilities for advancement, the opportunity cost of turning an innovative idea into a new business is low.

Figure 1 - Total entrepreneurship ranking<sup>13</sup>



*Professional management expertise*

Since most entrepreneurs have had the experience of running teams or projects in the military, the predominant management style is a derivative of the military management methods. Contrary to popular belief, Israeli military leadership is rarely about commanding people, but more about giving a task and overseeing its fast and effective execution by a team. The necessity of dealing with demanding deadlines without sufficient resources amid vague guidelines and constant changes in objectives make many individuals become self-confident improvisers with a multidisciplinary perspective on complicated issues. These traits are precisely the same as those required to achieve success in the startup world.

The local academic system produces well trained business graduates, but since the Israeli market is relatively small, there are not many opportunities to deal with management issues of large organized corporations or be exposed to corporate logistics and administration. One of the primary sources of experienced high level managers in these fields is the military but their management style is different from that needed in large corporations. The pool of available managers is growing. More and more individuals have international management experience. Immigrants with high level executive experience in developed countries also add to the talent pool. In addition, the expansion of local technology businesses abroad has contributed to the further development of already experienced managers.

Israelis are generally considered excellent team leaders, project managers and entrepreneurs, but when the time comes to establish a full fledged corporation with strong structure and solid administration seldom will the manager be an Israeli.

<sup>13</sup> Institute for Management Development, “The World Competitiveness Yearbook 2002,” IMD, 2002



*Legal infrastructure and enforcement*

Israel boasts a stable and largely predictable legal system. According to the professionals we interviewed, enforcement is relatively effective and thus there is little to no risk of legal instability. Lawyers and other legal service providers are generally regarded as highly professional by international standards. Many attorneys study in the US or Europe and are licensed to practice law in multiple countries. Therefore, local companies have good access to legal expertise that allows them to do business with foreign companies or in diverse international locations.

Accounting services are up to par with international practices and the “Big 4” accounting firms are represented in the country. This allows local firms to have an easy route to developed capital markets, and it is relatively easy for a local firm to be compliant with stock exchange or corporate requirements in established capital markets such as the NYSE.

*Tax stimulus*

Although the personal tax burden in Israel is one of the highest in the developed world, with rates exceeding 50%, corporate tax is on par with US levels. Several government sponsored initiatives are in place to assist small businesses or technology companies with tax incentives. Israel has also signed taxation treaties with the US making tax rates for American investors in Israel identical to their homeland rates.

*Senior and mezzanine debt*

Financing for buying businesses is typically limited to 50% (in rare cases up to 70%) senior bank debt with no real mezzanine or other financing options. Lately, public and private bond markets are becoming more active, but it is too early to determine whether they have real traction.

*Exits*

The Tel-Aviv Stock Exchange (TASE) offers local firms IPO and private placement options. However, relative to the NASDAQ or the other major stock markets, TASE suffers from low valuation multiples and very low post-IPO liquidity. Local venture firms planning an IPO will traditionally target the more developed stock markets of the US or Europe.

Late-stage private equity firms may consider TASE as a first option for an IPO due to the local nature of the portfolio company and the expected lack of foreign investor interest in

the company. TASE can also serve as an IPO option when a firm does not meet the minimal requirements for a NASDAQ offering.<sup>14</sup>

**Table 2 - Capital Raised by High-Tech Companies in Public Offerings (\$M)<sup>15</sup>**

| Year           | US             |                     | Europe         |                     | Israel         |                     |
|----------------|----------------|---------------------|----------------|---------------------|----------------|---------------------|
|                | Capital Raised | Number of Offerings | Capital Raised | Number of Offerings | Capital Raised | Number of Offerings |
| <b>2000</b>    | 19,179         | 202                 | 10,449         | 180                 | 5,001          | 40                  |
| <b>2001</b>    | 1,784          | 22                  | 701            | 28                  | 1,259          | 6                   |
| <b>2002</b>    | 1,639          | 20                  | 84             | 13                  | 522            | 2                   |
| <b>2003</b>    | 1,372          | 21                  | 137            | 8                   | 1,143          | 5                   |
| <b>Q1/2004</b> | 718            | 10                  | N/A            | N/A                 | 1,756          | 6                   |
| <b>Total</b>   | <b>24,692</b>  | <b>275</b>          | <b>11,371</b>  | <b>229</b>          | <b>9,681</b>   | <b>59</b>           |

It is widely acknowledged that the primary exit for venture and leveraged buyout funded Israeli companies is through a sale to a foreign strategic buyer. Although several flourishing technological companies exist in Israel, it still remains a vastly local market, one that is incapable of supporting large-scale M&A activity. Therefore, the majority of sales are done to foreign players. Among the major deals:

- **Perrigo** - bought Agis for \$900 million
- **Intel** - bought DSP Communications for \$1.6 billion
- **Lucent** - bought Chromatis for \$4.5 billion
- **Marvell** - bought Galileo for \$2.7 billion
- **Marvell** - bought Radlan for \$195 million
- **Broadcom** - bought VisionTech for \$1 billion
- **HP** - bought Indigo for \$629 million
- **Veritas** - bought Precise software for \$609 million
- **Guidant** - bought X-Technologies for \$160million
- **AOL** - bought ICQ for \$287 million

<sup>14</sup> Currently \$50 million

<sup>15</sup> Israel Venture Capital Research Center

**Table 3 - Mergers and Acquisitions of High-Tech Companies (\$M)<sup>16</sup>**

| <b>Year</b>  | <b>Israel</b> | <b>Europe</b> | <b>US</b>      |
|--------------|---------------|---------------|----------------|
| <b>2000</b>  | 10,586        | 6,757         | 97,999         |
| <b>2001</b>  | 1,357         | 1,896         | 21,774         |
| <b>2002</b>  | 1,254         | 799           | 10,656         |
| <b>2003</b>  | 1,095         | 334           | 12,495         |
| <b>Total</b> | <b>14,292</b> | <b>9,786</b>  | <b>142,924</b> |

A small private equity secondary market exists in Israel. Following the dotcom crash several LPs sold their portfolios to specialized secondary funds but since then any secondary sales have been sporadic.

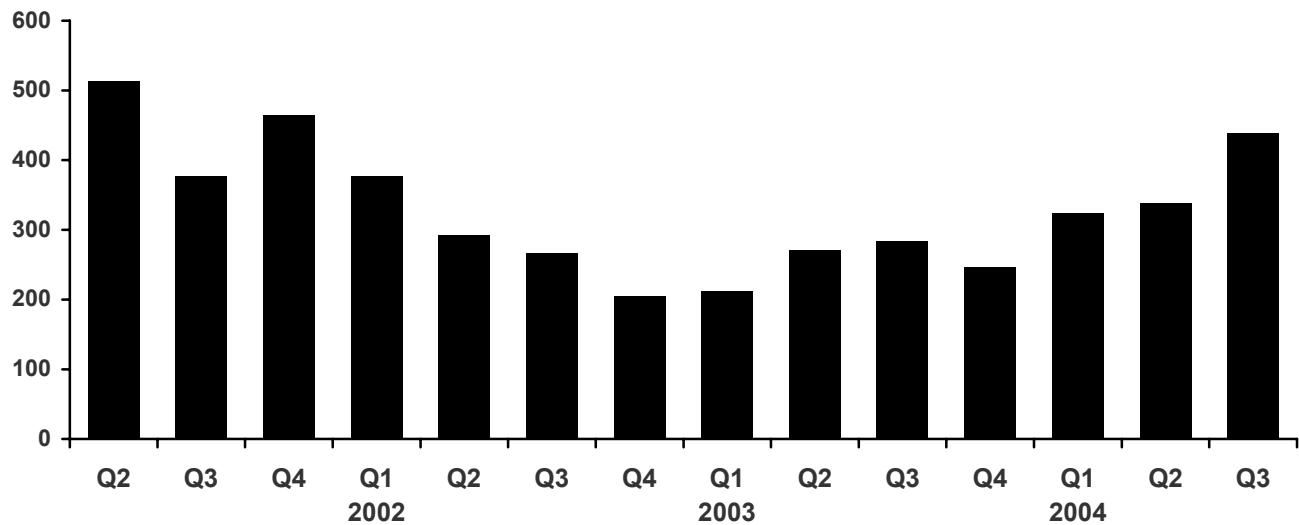
*Political / security influences*

Foreign investments in Israel are closely tied to the security situation. Therefore, following the ongoing hostilities with the Palestinians that erupted in 2000, investments in Israel greatly declined. Since the insurgencies coincided with the dotcom crash, isolating the extent of investment decrease due to these insurgencies is not possible. In anticipation of the US invasion of Iraq in March 2003 investments in Israel slumped further. As soon as the security threat imposed on Israel was removed, foreign investments resumed their original trend. See Figure 2 below.

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<sup>16</sup> Israel Venture Capital Research Center

Figure 2 - VC investments by quarter<sup>17</sup>



According to experienced business executives in Israel, the security situation adversely affects investment decisions in the country only when a war breaks in the region. Nonetheless, one measurable impact of the security situation is that sometimes representatives of foreign corporations will refuse to travel to Israel to visit local firms. As a consequence partnering agreements and sales have, on occasion, been hampered.

<sup>17</sup> Israel Venture Capital Research Center

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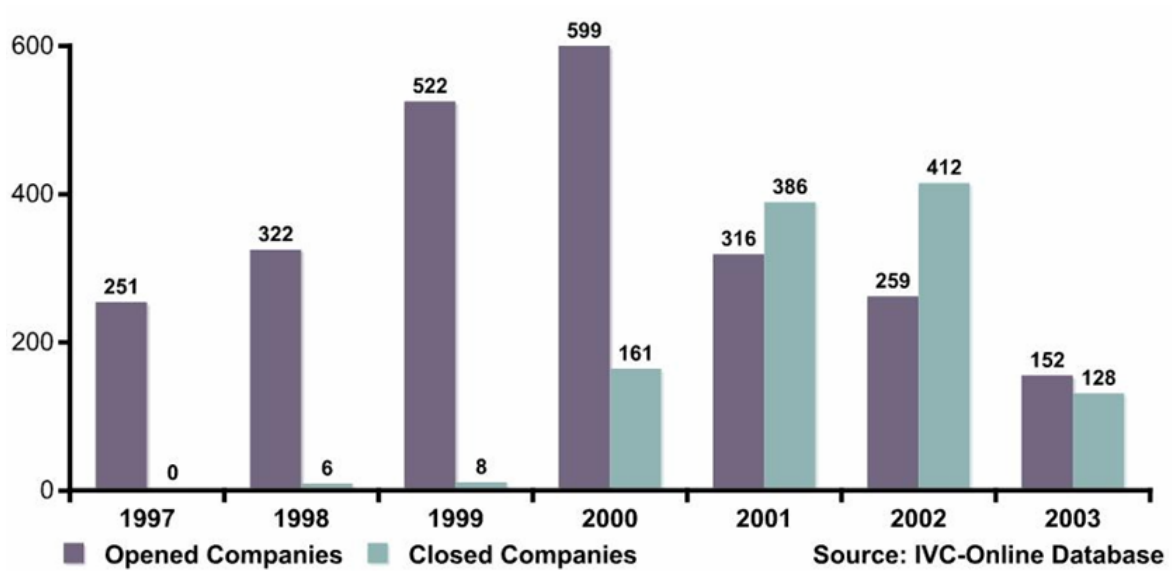
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Interviews with experts including:

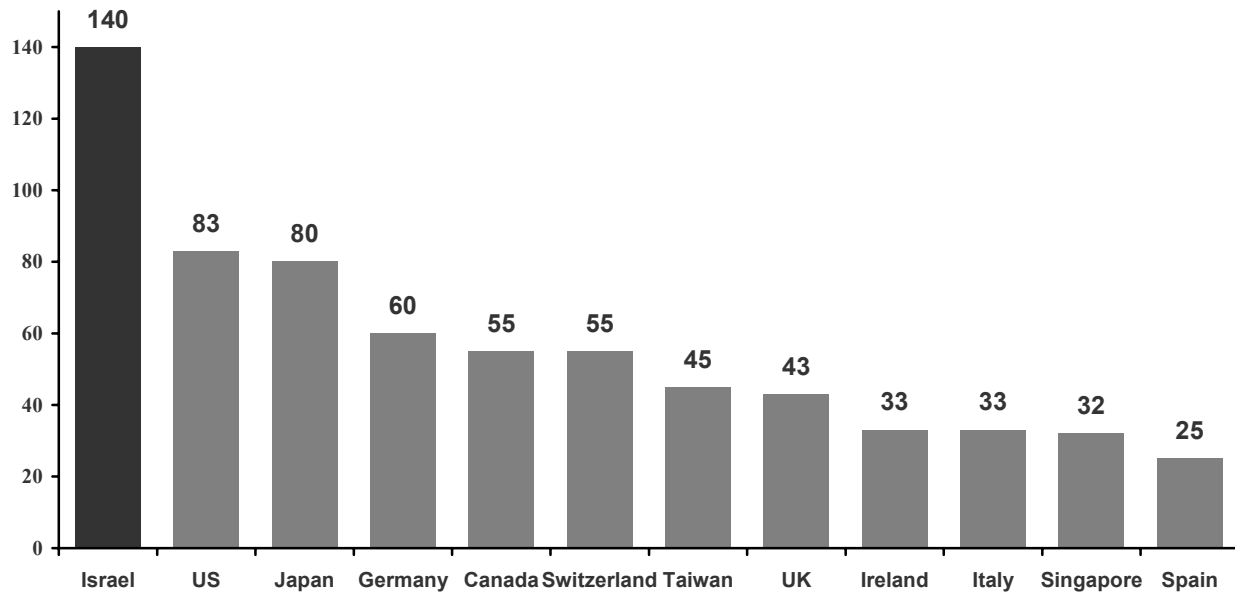
- Yoav Rubinstein, Apax Partners
- Mark Ziering, Genesis Partners

**Exhibit 1 - Israeli High-Tech Companies, Newly Established Vs. Ceased Operations 1997-2003<sup>18</sup>**



<sup>18</sup> "IVC-online.co.il," Israel Venture Capital Research Center

Exhibit 2 - Scientists & Technicians per 10,000 Workers<sup>19</sup>



<sup>19</sup> Ministry of Industry, Trade & Labor Foreign Trade Administration Investment Promotion Center, "Investment Climate in Israel, June 2005," Slide show, June 2005



Exhibit 3 - Foreign Direct Investment in Israel (\$ millions)<sup>20</sup>

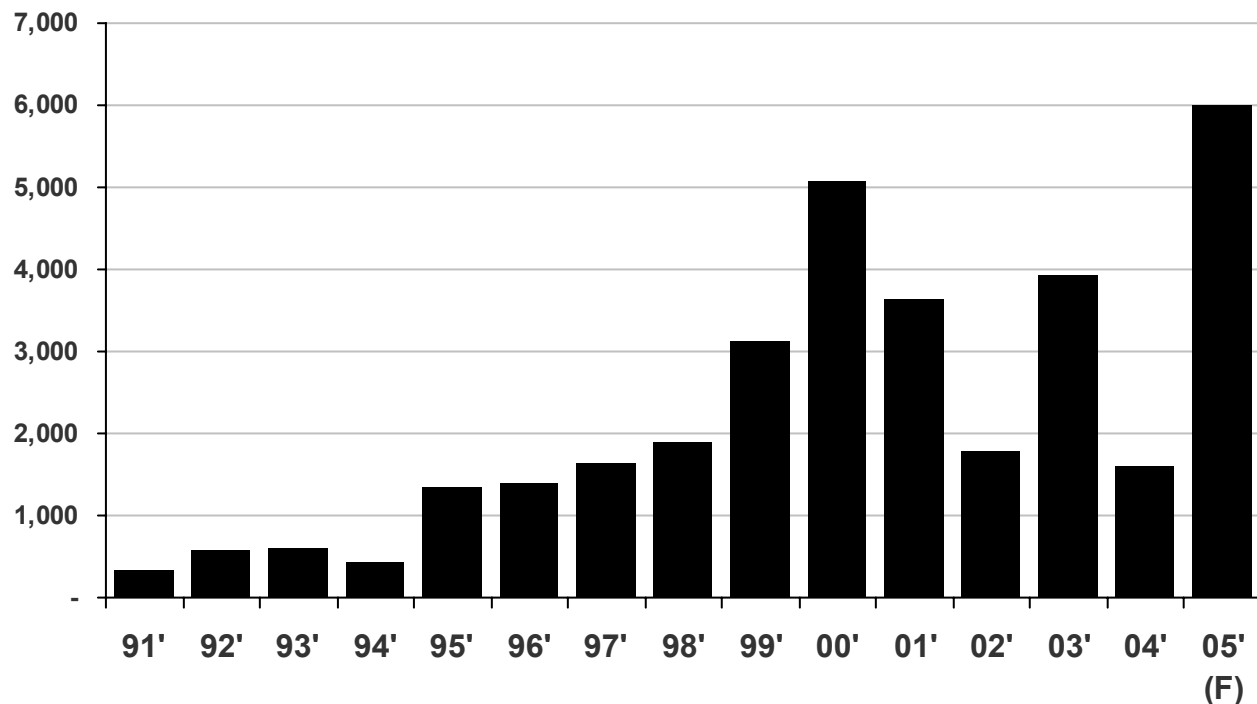


Exhibit 4 - Capital Raised by Private Equity Groups in Israel<sup>21</sup>

| (\$M)                 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999  | 2000  | 2001  | 2002 | 2003 |
|-----------------------|------|------|------|------|------|------|------|------|-------|-------|-------|------|------|
| Private VCs           | 49   | 27   | 172  | 112  | 135  | 309  | 620  | 594  | 1,552 | 3,682 | 1,304 | 76   | 118  |
| -Yozma                | 0    | 0    | 149  | 40   | 15   | 0    | 52   | 0    | 0     | 0     | 0     | 0    | 0    |
| - Non-Yozma           | 49   | 27   | 33   | 72   | 120  | 309  | 568  | 594  | 1,552 | 3,682 | 1,304 | 76   | 118  |
| Public VCs            | 0    | 54   | 22   | 0    | 0    | 0    | 29   | 8    | 44    | 185   | 6     | 86   | 0    |
| - Inbal               | 0    | 54   | 22   | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0    | 0    |
| - Non-Inbal           | 0    | 0    | 0    | 0    | 0    | 0    | 29   | 8    | 44    | 185   | 6     | 86   | 0    |
| Late stage            | 0    | 45   | 128  | 242  | 6    | 24   | 56   | 67   | 108   | 89    | 0     | 110  | 435  |
| Corporate holding co. | 9    | 34   | 40   | 20   | 25   | 80   | 134  | 141  | 149   | 601   | 83    | 0    | 5    |
| Total                 | 58   | 160  | 372  | 374  | 166  | 413  | 839  | 810  | 1,853 | 4,557 | 1,393 | 272  | 558  |

<sup>20</sup> Not including traded securities, source: "Bankisrael.gov.il" – Bank of Israel

<sup>21</sup> Avnimelech, Teubal, "Evolutionary Innovation and High Tech Policy: What can we learn from Israel's Targeting of Venture Capital?," Working report, Samuel Neaman Institute for Advanced Studies in Science and Technology, STE-WP 25, March 2005

**Exhibit 5 - Capital Invested in Israeli Startups<sup>22</sup>**

|  | 1997 | 1998 | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  |
|--|------|------|-------|-------|-------|-------|-------|-------|
| Capital invested (\$M)   | 440  | 589  | 1,011 | 3,092 | 1,985 | 1,138 | 1,011 | 1,465 |
| VC as % of GDP   | 0.4% | 0.5% | 0.9%  | 2.6%  | 1.7%  | 1.0%  | 0.9%  | 1.2%  |
| Domestic venture capital invested (\$M)                                      | 260  | 334  | 436   | 1,270 | 812   | 481   | 421   | 665   |
| Domestic venture capital as a share of total investments in Israeli startups | 59%  | 57%  | 43%   | 41%   | 41%   | 42%   | 42%   | 45%   |

**Exhibit 6 - Capital Invested in Israeli Startups (by Stage)<sup>23</sup>**

|                           | 1997 | 1998 | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  |
|---------------------------|------|------|-------|-------|-------|-------|-------|-------|
| Capital invested (\$M)    | 440  | 589  | 1,011 | 3,092 | 1,985 | 1,138 | 1,011 | 1,465 |
| Seed stage as % of total  | 10%  | 5%   | 5%    | 10%   | 5%    | 2%    | 6%    | 8%    |
| Early stage as % of total | 56%  | 53%  | 52%   | 38%   | 41%   | 35%   | 32%   | 24%   |
| Mid stage as % of total   | 15%  | 31%  | 28%   | 30%   | 32%   | 54%   | 49%   | 56%   |
| Late stage as % of total  | 19%  | 11%  | 14%   | 22%   | 23%   | 9%    | 13%   | 12%   |

\* Seed Stage = technological feasibility (firm age up to 1 year). Early Stage = alpha and beta products (firm age up to 3 years). Mid Stage = initial sales (firm age up to 5 years). Late Stage = revenue growth prior to exit (firm age up to 8 years).

<sup>22</sup> Avnimelech, Teubal, "Evolutionary Innovation and High Tech Policy: What can we learn from Israel's Targeting of Venture Capital?," Working report, Samuel Neaman Institute for Advanced Studies in Science and Technology, STE-WP 25, March 2005

<sup>23</sup> Ibid

**Exhibit 7 - Capital Invested in Israeli Startups<sup>24</sup>**

| Sector             | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|--------------------|------|------|------|------|------|------|------|------|
| Communication      | 25%  | 32%  | 33%  | 34%  | 42%  | 37%  | 33%  | 29%  |
| Software           | 18%  | 15%  | 15%  | 16%  | 17%  | 18%  | 19%  | 22%  |
| Life Science       | 24%  | 25%  | 9%   | 8%   | 16%  | 15%  | 18%  | 22%  |
| Internet           | 8%   | 12%  | 27%  | 30%  | 9%   | 4%   | 4%   | 4%   |
| Semiconductors     | 19%  | 11%  | 11%  | 6%   | 4%   | 12%  | 11%  | 10%  |
| Other Technologies | 6%   | 5%   | 5%   | 7%   | 13%  | 14%  | 14%  | 13%  |

**Exhibit 8 - Israel Ranking in Various Economic Categories (I)<sup>25</sup>**

| Country Rank                                  | 1      | 2       | 3       | 4         |
|---|--------|---------|---------|-----------|
| Technological readiness                       | ISRAEL | U.S.A.  | FINLAND | SWEDEN    |
| Availability of mobile or cellular telephones | ISRAEL | NORWAY  | ICELAND | HONG KONG |
| Business costs of irregular payments          | ISRAEL | DENMARK | ICELAND | HONG KONG |
| Venture capital availability                  | U.S.A. | ISRAEL  | UK      | HONG KONG |
| Quality of scientific research institutions   | U.S.A. | SWEDEN  | ISRAEL  | FINLAND   |
| Availability of scientists and engineers      | INDIA  | FINLAND | ISRAEL  | JAPAN     |
| Utility patents                               | U.S.A. | JAPAN   | TAIWAN  | ISRAEL    |

<sup>24</sup> Avnimelech, Teubal, “Evolutionary Innovation and High Tech Policy: What can we learn from Israel's Targeting of Venture Capital?,” Working report, Samuel Neaman Institute for Advanced Studies in Science and Technology, STE-WP 25, March 2005

<sup>25</sup> “The Global Competitiveness Report 2004-2005,” World Economic Forum, 13 October, 2004

**Exhibit 9 - Israel Ranking in Various Economic Categories (II)<sup>26</sup>**

| <b>Country Rank</b>   | <b>1</b>  | <b>2</b>       | <b>3</b>     | <b>4</b>       |
|---|-----------|----------------|--------------|----------------|
| Total expenditure on R&D as percentage of GDP   | ISRAEL    | SWEDEN         | FINLAND      | ILE-DE-FRANCE* |
| Number of mobile telephone subscribers per 1000 inhabitants                                 | ISRAEL    | LUXEMBURG      | HONG KONG    | ITALY          |
| Total public expenditure on education as percentage of GDP                                  | DENMARK   | ISRAEL         | CANADA       | MALAYSIA       |
| GDP & energy consumption - Real GDP growth minus energy consumption growth                  | ZHEJIANG* | ISRAEL         | MAHARASHTRA* | CHINA          |
| University education meets the needs economy  | FINLAND   | ISRAEL         | SINGAPORE    | SWITZERLAND    |
| Consumer price inflation - Average annual rate  | HONG KONG | ISRAEL         | TAIWAN       | JAPAN          |
| Skilled labor availability  | DENMARK   | ICELAND        | ISRAEL       | AUSTRIA        |
| Total R&D personnel in business per capita, full time work equivalent (FTE) per 1000 people | LUXEMBURG | ILE-DE-FRANCE* | ISRAEL       | BAVARIA*       |
| Qualified engineers available in labor market   | INDIA     | FINLAND        | ISRAEL       | MAHARASHTRA*   |
| Entrepreneurship of managers  | ZHEJIANG* | HONG KONG      | U.S.A.       | ISRAEL         |
| Legal environment affecting R&D does not restrain business development                      | SINGAPORE | FINLAND        | CANADA       | ISRAEL         |

\* The report includes unique economic regions

<sup>26</sup> Institute for Management Development, "The World Competitiveness Yearbook 2004," IMD, 2004