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Günseli Baygan

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VENTURE CAPITAL POLICY REVIEW: ISRAEL

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Günseli Baygan

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#### VENTURE CAPITAL POLICIES IN ISRAEL

### Günseli Baygan

### Absract

Israel has a higher level of venture capital as a share of GDP than any OECD country. Most Israeli venture capital is channelled to early-stage companies, particularly start-ups in sectors based on information and communications technology (ICT) and biotechnology. The Israeli venture capital industry was built through government funding, particularly through the YOZMA group, which leveraged financing from foreign corporations and institutions. There is now a need for a change in tactics to maintain private venture funding for both portfolio and seed firms. While new incentives are being given to foreign investors, domestic venture investments could be encouraged through tax breaks, expanded opportunities for institutional investors, and reforms to the Israeli stock exchange. Israel needs to sustain growth in the venture sector while reducing dependence on a limited number of capital sources. This paper analyses trends in Israeli venture capital markets and makes policy recommendations which have been developed through an OECD peer review process.

## POLITIQUES DE CAPITAL-RISQUE EN ISRAËL

## Günseli Baygan

### Résumé

La part du capital-risque dans le PIB d'Israël est la plus élevée de toute la zone OCDE. Pour l'essentiel, le capital-risque israélien est dirigé vers des entreprises aux premiers stades de leur existence, en particulier vers les jeunes entreprises opérant dans les technologies de l'information et des communications (TIC) et les biotechnologies. Le secteur israélien du capital-risque s'est constitué grâce à l'effet de levier qu'ont exercé les fonds publics, notamment via le groupe YOZMA, sur les apports émanant d'entreprises et d'institutions étrangères. Il est aujourd'hui nécessaire de changer de tactique pour maintenir les apports de capital-risque privé tant pour les entreprises existantes que pour celles en phase de démarrage. Tandis que les investisseurs étrangers bénéficient de nouvelles incitations, on pourrait utiliser des allègements fiscaux, un accroissement des opportunités offertes aux investisseurs institutionnels et une réforme de la Bourse israélienne pour stimuler les investissements locaux en capital-risque. Israël doit soutenir la croissance du secteur du capital-risque tout en réduisant sa dépendance vis-à-vis d'un nombre limité de sources de financement. Ce document analyse les tendances des marchés israéliens du capital-risque et formule des recommandations d'action qui ont été élaborées au cours du processus d'examen par les pairs en vigueur à l'OCDE.

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### ASSESSMENT AND RECOMMENDATIONS

Israel had a higher level of venture capital as a share of GDP in the period 1998-2001 than any OECD country. Growing rapidly in the 1990s, venture capital investments reached over 2% of GDP in 2000, but then declined with the downturn in technology markets. Most Israeli venture capital is channelled to early-stage companies, particularly start-ups in sectors based on information and communications technology (ICT) and biotechnology. In this, the Israeli venture capital industry has performed admirably in directing venture funds to growth-oriented enterprises. Israeli venture capital markets now face new challenges in raising funds in an economic slowdown.

The Israeli venture capital industry was built through government funding which leveraged financing from foreign corporations and institutions. The small size of the domestic market is a continuing constraint on sources of venture capital. The government created the YOZMA group in 1993 to use public funds to leverage foreign financing, primarily from the United States. This was accompanied by equity guarantees for foreign investors, programmes to link Israeli firms with foreign business angels, and exits of Israeli venture firms on foreign stock exchanges. By 2000, the Israeli venture capital industry had reached the stage whereby the private sector led the public sector in investments.

The government phased out both the YOZMA equity programmes and the equity guarantees in the late 1990s when the success of the pump-priming efforts was evident. There is now a need for a change in tactics to maintain private venture funding for both portfolio and seed firms. New tax incentives are being given to foreign investors in venture funds, and provisions have been enacted for the creation of pooled vehicles, primarily to attract investment from abroad. However, domestic venture investments could be encouraged by similar tax breaks, expanded opportunities for Israeli insurance funds and pension funds, and reforms to the Israeli stock exchange to increase listings and promote initial public offerings (IPOs). Israel needs to sustain growth in the venture sector while reducing dependence on a limited number of capital sources. A summary of progress and recommendations concerning Israeli venture capital policies is given in **Table 1**.

Table 1. Progress and recommendations on Israeli venture capital policies

Area	Recent/planned action	Recommendations	
Investment regulations	Equity guarantees for domestic institutional investors under consideration.	Reduce restrictions on venture capital investments by domestic insurance and pension funds.	
Tax incentives	Foreign investors given permanent exemption from capital gains taxes on venture investments as of 2002.	Consider extending tax incentives to domestic investors as well as foreign.	
Equity programmes	YOZMA equity programme and INBAL equity guarantees phased out in late-1990s; small government-backed Seed Fund started in 2002.	Extend evaluation and phasing-out procedures to new equity funds.	
Business angel networks	Excellent programmes for increasing investment-readiness of firms; informal links to foreign business angels.	Create more formal business angel networks for both foreign and domestic investors, including through electronic means.	
Second-tier stock markets	Israeli firms list and go public on foreign stock exchanges.	Reform the Tel Aviv Stock Exchange (TASE) to improve liquidity and ease of listing for smaller firms.	

## TRENDS IN VENTURE CAPITAL MARKETS

#### Overview

Compared to other OECD countries, Israel had the highest level of venture capital (all stages) as a share of GDP in the period 1998-2001 (**Figure 1**). On average for these years, Israel ranked ahead of the United Kingdom, Sweden and the United States in terms of venture capital raised and invested relative to its size. Several factors help explain Israel's success in fuelling high-technology start-ups through venture funding: a risk-taking culture, wide-ranging technological know-how partly associated with military-related developments, and a large supply of skilled human resources and intellectual capital based on international immigration. In addition, Israel has benefited from large inflows of venture capital from abroad, particularly the United States.

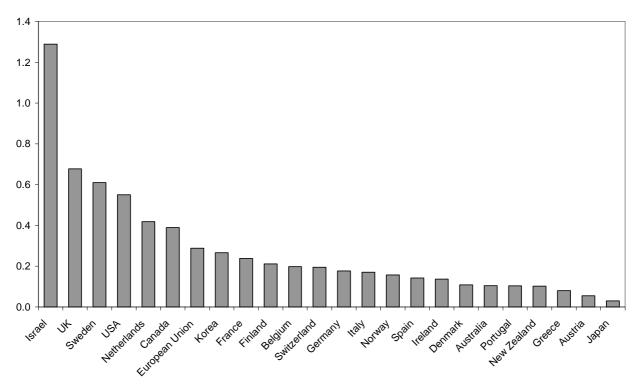


Figure 1. Israeli and OECD venture capital investment as a share of GDP, 1998-2001

Note: The definition of private equity/venture capital tends to vary by country. Source: IVA, 2002; OECD venture capital database, 2002.

Venture capital investments by domestic funds also grew rapidly over the 1990s, reaching 0.4% of GDP in 1997. 2000 was a banner year for the Israeli venture capital industry with investments totalling over 1% of GDP (**Figure 2**). In 2001, the downturn in technology markets brought a decline in capital raised similar to trends in the United States and Europe. Capital invested in Israeli high-technology companies fell by 30% in 2001 from 2000. In 2002, investments are continuing at a lower level than 2000

due to volatile technology markets, a decrease in foreign investment, and related difficulties in raising new capital. Many venture capitalists, both domestic and foreign, are focusing on keeping their current portfolio of businesses alive rather than taking on new investments.

% of GDP

1.2

1.0

0.8

0.6

0.4

0.2

1997

1998

1999

2000

2001

Figure 2. Israeli venture capital investment as a share of GDP, 1997-2001

Note: Amount invested by Israeli VCs only. Source: IVA, 2002.

## Investment by stage and deal size

Israel has been successful in channelling venture capital to early-stage companies, primarily start-ups which depend on equity funding and require a great deal of management attention. Starting in 1999, over 50% of Israeli venture capital investments have been in early-stage firms (**Figure 3**). Investments in expansion stages have accounted for around 30% of investments, while later stages, including management buy-outs, have drawn a little less than 20% of the total.

Most Israeli venture capital funds in the early 1990s were established with assets of USD 20 million or less and made relatively small investments. Over the 1990s, the size of venture capital funds in Israel has grown larger and competition has been exerting upward pressure on valuations for larger deals. Since 2000, larger venture capital funds have been established with assets of USD 150 million to USD 200 million. These larger funds are seeking the ability to make substantial investments in their portfolio companies and to make required follow-on investments without having to locate co-investors. As the venture capital market in Israel matures, more funding will likely be directed to later stage deals where greater sums are generally required.

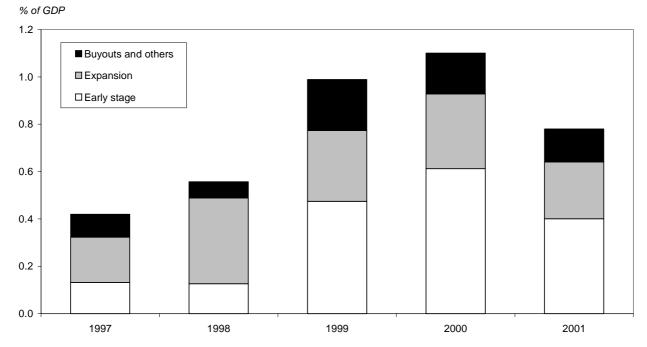


Figure 3. Israeli venture capital investment by stage, 1997-2001

Note: Amount invested by Israeli VCs only. Source: IVA, 2002.

## Investment by sector

Most Israeli venture capital, particularly investments by Israeli funds, has gone to high-technology sectors which predominate in the economy. Until the mid-1980s, the Israeli economy was mainly oriented towards traditional industries, such as textiles, and agriculture. The economy was radically transformed in the 1990s. Israeli now has world-class firms in such industries as telecommunications, software, pharmaceuticals and biomedical equipment. Sectors based on information and communications technology (ICT) have accounted for more than half of Israeli venture capital investments in the 1990s, with their share increasing in the late 1990s (**Figure 4**). The number of communications companies that raised capital in 2000 rose to 176 (compared to 74 in 1999) with an average investment of USD 7 million. Popular investment targets are Internet-related companies. Among other sectors, the Israeli biotechnology industry stands out in terms of venture capital performance. Investments in life sciences, including biotechnology constituted around 17% of total investments in the late 1990s.

Figure 4. Israeli venture capital investment by sector, 1997-2001

Note: Amount invested by Israeli VCs only.

# Source: IVA, 2002.

**Investment by region** 

From a geographic point of view, companies in Tel Aviv and the central area of Israel continue to absorb most venture capital investments (**Figure 5**). In the last four to five years, 75% of all venture investments were made in the Tel Aviv area, which includes Petach Tikva and Herzliya. The most popular industries for investors in the central region are communications, software and biotechnology. In 2000/2001, about 11% of investments were made in businesses located in Jerusalem, which declined from 16% in 1997. Most investments here went to medical devices, software and biotechnology. The northern region attracts 13%-14% of venture capital investment directed to firms producing medical devices and semiconductors in Haifa and Yokneam. There are virtually no investments in the southern region, which is not perceived as presenting start-up companies with the proper conditions for eventual commercial success.

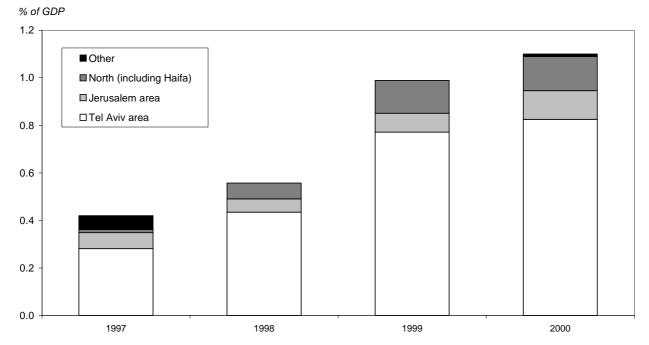


Figure 5. Israeli venture capital investment by region, 1997-2000

Note: Amount invested by Israeli VCs only. Source: IVA, 2002.

## Funds raised by source

The Israeli venture capital industry has been built on a foundation of government funding combined with corporate investment, mostly from foreign sources. Over time, the role of the government has declined markedly and that of the private sector has grown. Public venture capital funds -- including those established as part of the YOZMA programme -- accounted for 50% of Israeli venture capital investments in the early 1990s. This share declined to almost zero by 2000.

Since its beginnings, the Israeli venture capital industry has been a conduit for foreign funds being channelled to local high-technology companies. Approximately 70% of private venture funding comes from foreign investors, predominantly in the United States. Foreign investors have been attracted to Israel due to its intellectual and entrepreneurial potential as well as annual investment returns of at least 30% in the mid-1990s. Over the years, Israeli companies have sought to attract foreign strategic partners just as foreign financial groups have pursued suitable Israeli partners with whom to form "co-investments" in venture capital funds and start-ups. The list of US institutional investors in Israeli venture capital includes AT&T's pension fund, the Massachusetts Institute of Technology (MIT) endowment fund, Boston's Hancock Ventures, and Chase Capital.

The local Israeli venture capital industry was born in 1985 with the establishment of Athena Venture Partners, a US-Israeli venture fund which raised USD 30 million from private investors for high-technology start-ups in Israel. By 2002, the number of venture capital funds reached 131, with around USD 10 billion under management (**Table 2**). Some of these funds are international or foreign-based with local Israeli management teams. In addition, Israeli firms have raised capital through initial public offerings (IPOs) on US and European stock exchanges and mergers and acquisitions (M&As) with foreign companies. Although European and Asian investors, particularly from Japan, have also been interested in Israeli investments, their role has been far smaller. The dependence on US capital markets has increased

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the volatility of the Israeli venture sector and made it highly susceptible to downturns in the American economy.

Table 2. Largest Israeli venture capital funds, 2002

Rank	Management company	Capitalisation 1998-2001	
		(USD million)	
1	Apax Partners	700	
2	Pitango VC	500	
3	JVP	320	
4	Star Ventures	300	
5	Giza VC	271	
6	Genesis Partners	263	
7	BRM Group	253	
8	Evergreen Partners	241	
9	Israel Seed	240	
10	Benchmark Israel	220	
11	Gemini Israel	200	
12	Jerusalem Global	190	
13	Sequoia Israel	180	
	Concord Venture	180	
14	Cedar Financial	175	
15	Carmel Ventures	170	
16	Challenge Funds	161	
17	Vertex Israel	160	
18	Tamir Fishman	150	
	Walden Israel	150	

Source: IVA, 2002.

### **VENTURE CAPITAL POLICIES AND PROGRAMMES**

### Overview

The Israeli government has played an active role in the development of Israeli venture capital markets, most effectively through financing hybrid (public/private) venture capital funds to leverage private capital from foreign investors. A continuing challenge in Israeli venture capital policies is how to overcome the small size of the domestic market and limited capital availability. The government confronted the lack of venture capital in the early 1990s by establishing the YOZMA group, which took equity stakes in US-style venture operations. This was accompanied by equity guarantees and tax breaks for foreign investors, but limited incentives for potential domestic investors. Through infusion of foreign funds, Israel developed specialisation in high-technology sectors featuring small growth-oriented firms.

As the domestic venture capital industry grew and matured, the government successfully phased out its equity involvement. When YOZMA completed its task of catalysing the establishment of the venture capital industry, it was privatised and sold. Now the government has new challenges in raising capital in the face of an economic slowdown and reduced growth prospects for several technology-based sectors. Policies are needed to help venture capital funds raise financing to nurture existing portfolio companies as well as seed firms. Total capital requirements for existing and new Israeli companies are expected to be USD 2-3 billion annually starting in 2002. In response, new tax incentives are being given to foreign investors in venture funds. The Israeli venture capital infrastructure is strong and should continue to maintain its attraction for foreign capital. However, measures are needed to stimulate domestic fundraising such as preferential tax treatment, fewer restrictions on institutional investors and reforms to the Israeli stock exchange.

## **Investment regulations**

Israel has had strict restrictions on venture capital investments by local institutions, including pension funds and insurance funds, while enjoying vast inflows of venture capital from institutional investors in the United States. As a result, institutions in Israel have not traditionally invested in venture capital markets, unlike their counterparts in North America and some European countries, who invest 3% to 5% of their assets in venture funds. In the 1990s, Israeli insurance companies and pension funds invested just 0.2% of their holdings in venture capital outlets. Instead, they invested in special government-backed bonds, where they were assured relatively high and safe returns.

In order to assure future flows of venture capital, the Israeli government is now considering loosening its investment regulations. Legislation now allows the creation of pooled vehicles investing in venture capital funds. Two "funds of funds" were created in 2000, primarily to attract large institutional investors from abroad, but these have since been discontinued due to unfavourable market conditions. Although Israeli institutions will likely not invest in these larger funds, the Ministry of Industry and Trade has proposed to offer government equity guarantees to institutional investors who participate in or initiate local venture capital funds. This proposal, which would raise venture investments but reduce most risks for the investors, is now under review by the Israeli Treasury Ministry. In the interest of expanding domestic contributions to the venture capital industry, investment regulations prohibiting local pension and

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insurance funds from investing in unlisted equities should be reviewed and liberalised. Government guarantees are not the best approach for promoting institutional investments which balance risk with prudence and could distort investment flows excessively towards riskier vehicles.

#### Tax incentives

Israel has few direct tax incentives for venture capital investments, and in general, business taxes are quite high with marginal tax rates reaching 52%. The 1959 Encouragement of Investments (Capital Intensive Companies) Law did introduce limited provisions for reduced capital gains taxes on corporate dividends derived from certain qualifying investments. In 2000, the government tried, but failed, to introduce a comprehensive income tax reform package, which would introduce various incentives and reduce marginal tax rates. Instead, some targeted changes were allowed, including tax incentives for foreign investors in local venture capital. These took the form of temporary exemptions from capital gains taxes. In July 2002, a new tax reform was approved that guaranteed foreign investors a permanent exemption from capital gains tax on investments in local venture capital funds and in high technology start-ups.

Many Israeli start-ups are now being incorporated in the United States or elsewhere due to the local tax structure, which is deemed overly burdensome. At the same time, Israel actively solicits foreign investment in venture capital funds and start-ups, including through these recent tax incentives. There are no restrictions on foreign ownership, with the exception of regulated sectors -- *e.g.* banking, insurance and defence-related industries -- which require prior government approval, and foreign firms can repatriate profits and dividends without difficulty. In order to confront problems associated with potential capital outflows rather than inflows, the government should consider putting venture capital tax incentives on a more even footing for domestic and foreign investors.

# **Equity programmes**

The main impetus to the development of the venture capital industry in Israel was the government equity programme YOZMA, founded in 1993 and phased out in 1998 (**Box 1**). YOZMA invested in Israeli start-ups and created a number of hybrid public/private funds building on US investments. YOZMA would provide up to 40% of the capital raised by the fund with a clause to be bought out within the first seven years at the initial value plus interest. Investment decisions regarding where and how to invest were mainly taken by the international partners. Co-investors were mostly American but also included investors from Germany and Japan. This approach led to more than 30 foreign-based venture capital funds operating in Israel. The financial leverage of YOZMA increased from the initial USD 100 million to USD 250 million by 1996.

The Israeli government also created an equity guarantee scheme in 1991, the INBAL Programme, to encourage investment in venture capital. INBAL provided 70% guarantees to investors in local venture capital funds. Even though the INBAL programme was phased out over the years, it helped the formation of around six publicly-traded Israeli venture capital funds, each with USD 15 million to USD 20 million in capital. In 2002, the Ministry of Trade and Industry created a *Seed Fund* (to succeed YOZMA but on a much smaller scale) with assets of USD 11 million to invest in start-ups, leveraging half of the capital from private investors. The government will own 50% of the start-ups, but cannot appoint directors or engage in management. After five years, the private investors can choose to buy out the government by repaying their share with interest. Since government equity participation has been reduced to such as great extent, alternative programmes and initiatives are needed to stimulate venture capital investments. At the same

time, successful techniques for evaluating public funds and reducing government participation should be continued.

### Box 1. Government venture capital funds in Israel

The Israeli government supplied USD 100 million in 1993 to start YOZMA, a venture capital fund investing in high-technology start-ups. Over a period of three years, the Group established ten hybrid funds, each capitalised with around USD 20 million. In parallel, YOZMA started making direct investments in start-up companies. This marked the beginning of a professionally managed venture capital market in Israel. YOZMA is widely given credit for being the catalyst that created Israel's flourishing venture capital industry.

With the backing of prominent American, European and Israeli investors, YOZMA launched its second fund in 1995. The YOZMA Group invests in all stages of company development with a primary focus on the earliest stages, targeting high-growth companies in ICT and life science/biotechnology sectors. Initial individual investments typically ranged between USD 1 million and USD 6 million and additional capital was reserved for follow-on investments. Since inception the Group has managed more than USD 170 million and has made direct investments in more than 40 portfolio companies, a significant number of which went public on major stock exchanges in the United States and Europe. In addition, the YOZMA Group was instrumental in positioning its portfolio companies for acquisition or an investment by leading multinational corporations.

The YOZMA Group also developed close working relationships with several of the leading academic institutions and technology incubators in Israel. Some of the most promising companies in the YOZMA portfolio have come directly from these institutions. As part of its efforts to involve senior executives and founders of successful enterprises in the activities of YOZMA, the Group created the YOZMA III CEO Club, which became a valuable source of deal flow.

In 1998, the government decided that private sector venture capital was sufficiently robust for it to sell its YOZMA participation. It successfully auctioned off its direct co-investments in 14 companies and sold its interest in nine YOZMA funds to its co-investment partners. These funds have now been privatised, and the direct contribution of YOZMA-related venture capital funds has been greatly reduced. The government still has a minor interest in two YOZMA-related funds.

## **Business angel networks**

A large share of Israeli venture capital is believed to come from wealthy individuals (business angels) in both Israel and other countries, particularly the United States. However, it is difficult to estimate the contribution of angels, who invest directly in start-ups. The Israeli government has sought foreign angels through offering tax incentives and initiating programmes to link small firms and venture capital funds with foreign-based institutions and multinational enterprises as well as individuals. Many Israeli venture capital funds have opened offices in the United States and Europe to help portfolio companies with contacts, finding co-investors, and maintaining an awareness of technological and market developments abroad. Given the small indigenous market, such relationships are important to the development of venture firms.

The government provides contacts for venture-backed firms by fostering international research and development (R&D) agreements, such as the US-Israeli Science and Technology Commission and the Israel-US Binational Industrial R&D (BIRD) Foundation. The latter, established in the 1970s to fund R&D in start-ups, has financed about 40% of Israeli companies listed on NASDAQ. BIRD also works with the venture capital community, making its matchmaking services available to them and their portfolio companies to identify business angels.

In addition, there are a number of programmes to improve the "investment readiness" of smaller firms in the eyes of business angels. Management and training programmes for small firms are provided by the Authority for Small and Medium-sized Businesses in Israel (ISMEA). Government bodies such as

MATIMOP (Israeli Industry Center for R&D), the Israel Export Institute, and MESSER (Israeli Idea Promotion Center) add value by helping entrepreneurs and small companies assess domestic and international markets for their products and services. The Ministry of Industry and Trade also supports a large number of technology incubators, which provide advice, facilities and finance for scientists and entrepreneurs wishing to start a business. First established in 1991, the incubator programme provides USD 30 million annually for support of start-ups.

Israel stands out among OECD countries in the provision of management assistance by venture capital funds. Many Israeli entrepreneurs had primary training which came from the armed forces and who are now applying concepts and skills honed in the military to a business environment. Others are immigrants from the former Soviet Union or elsewhere where they have excelled in their respective technological fields but lack understanding of western business concepts. Still others come from the academic world without practical business experience. In Israel, there has been emphasis on providing management assistance to entrepreneurial talent. This includes evaluating the technological and financial feasibility of projects, making entrepreneurs aware of management needs, leveraging the fund network of contacts, advising on business plans, and preparing companies for profitable exits. It is this intangible investment of managerial skills which has made Israeli start-ups so attractive to business angels. In the new economic environment, however, more could be done to formalise angel networks, including through the Internet, for domestic and foreign investors.

### Second-tier stock markets

Prior to the stock market crash in 1994, the Tel Aviv Stock Exchange (TASE) provided a limited source of liquidity and exits for technology companies. Since that time, most Israeli firms get listings on the major foreign exchanges in the United States and Europe. Although the TASE still represents a source of financing and an exit alternative for venture-backed firms, it cannot compete with the foreign exchanges. Given limited domestic stock market capitalisation and liquidity, successful Israeli firms still choose to go public on US and European exchanges due to greater flexibility in registering companies and the higher prices obtainable for shares. In 2000, the Israeli Securities Law was amended to allow Israeli companies to dual list on the TASE and US exchanges. The Tel-Tech Index was also launched to monitor the performance of listed companies from high-technology sectors as well as publicly-traded venture capital funds.

Israeli companies turned to Wall Street to fund their expansion as early as the 1970s. Israeli companies who raised funds for their activities on NASDAQ include BioTechnology General, Electronics Corporation of Israel (ECI), Elron Electronics Industries, Laser Industries, Optrotech and Scitex. By 1984, the stock market valuation of these companies stood at USD 780 million. About 150 Israeli technology-based companies are now listed on the main US exchanges, making Israel the second country after Canada in terms of US listings. About 30 Israeli companies are also currently trading on the main European stock exchanges in London, Frankfurt and Paris.

Foreign capital has played a crucial role in facilitating exit of Israeli firms through initial public offerings (IPOs) as well as mergers and acquisitions (M&As). In 1997, there were 22 Israeli IPOs in the United States and three in Europe, raising nearly USD 800 million. But venture-backed exits then declined and saw a drastic drop in 2001. IPOs of Israeli companies in the United States and Europe plunged 89% and 67% respectively in dollar terms from 2000 levels (**Table 3**).

In addition to having a dynamic IPO strategy, Israeli venture capital funds have promoted M&As by foreign companies as an exit method. Foreign acquisitions were facilitated by the 1999 Israeli Companies Law which replaced the more restrictive Companies Ordinance. In recent years, several portfolio firms

were bought by large multinational corporations, *e.g.* Chromatis by Lucent (USD 4.6 billion), Gallileo by Marvel (USD 2.7 billion) and DSPG by Intel (USD 1.6 billion). Foreign purchasers also include German companies (Siemens which bought Ornet, a developer of data communications) and Japanese firms (Kyocera Corp). These multinationals are primarily interested in acquiring technical capabilities and unique technologies from these Israeli ventures. However, the value of M&A deals in Israel declined along with the market by 94% in 2001. Further reforms to the TASE to ease listing requirements and increase liquidity could provide an exit for Israeli firms and help buffer market swings abroad.

Table 3. Offerings of Israeli companies in the United States and Europe, 1995-2001

	Europe		United States	
	Number of	Capital raised	Number of	Capital raised
	Offerings	(USD Millions)	Offerings	(USD Millions)
1995	1	6	16	608
1996	5	44	31	981
1997	3	28	22	743
1998	5	122	12	505
1999	12	446	22	3160
2000	7	353	28	2321
2001	1	118	3	254
Total	34	1117	134	8572

Source: IVA, 2002.

### **REFERENCES**

Israel Venture Association (IVA) (2002), Israel Venture Association Yearbooks, 1998-2002.

Mayer, C., K. Schoors and Y. Yafeh (2002), "Sources of Funds and Investment Activities of Venture Capital Funds: Evidence from Germany, Israel, Japan and the United Kingdom, "Discussion Paper No. 3-2002, Tel Aviv University, Israel.

OECD (1997), Government Venture Capital for Technology-Based Firms [OCDE/GD(97)201].

Pridor, R. (1997), "Technology Incubators in Israel," in *Technology Incubators: Nurturing Small Firms*, OECD [OCDE/GD(97)202].

YOZMA (2002), The YOZMA Group.