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Günseli Baygan

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VENTURE CAPITAL POLICY REVIEW: SWEDEN

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VENTURE CAPITAL POLICIES IN SWEDEN

Günseli Baygan

Abstract

Sweden has one of the highest levels of private equity investment as a share of GDP among OECD countries. However, its strength lies in later-stage investments, financed primarily by foreign investors. This reflects an industrial structure based on large manufacturing conglomerates. A lack of entrepreneurial demand and equity-related management expertise hinder the growth of the domestic venture capital industry. The Swedish government is now considering a set of changes to its regulatory and fiscal system to better target the needs of small, technology-based firms. Removing quantitative restrictions on institutional investors, lowering tax rates, and restructuring equity programmes are necessary steps. This paper analyses trends in Swedish venture capital markets and makes policy recommendations which have been developed through an OECD peer review process.

POLITIQUES DE CAPITAL-RISQUE EN SUEDE

Günseli Baygan

Résumé

La Suède fait partie des pays de l’OCDE où la part des investissements en capital-risque dans le PIB est la plus élevée. Étant donné la structure industrielle du pays, et la place prépondérante qu’y occupent les grands groupes industriels, il s’agit toutefois pour l’essentiel d’investissements d’origine étrangère destinés à des entreprises déjà bien établies. Au plan national, l’absence de demande du côté des entrepreneurs et le manque de compétences en gestion pour les investissements en fonds propres entravent le développement de l’industrie du capital-risque. Le gouvernement suédois envisage actuellement de modifier divers aspects du cadre fiscal et réglementaire de l’investissement afin de mieux répondre aux besoins des entreprises technologiques de petite taille. La suppression des restrictions quantitatives appliquées aux opérations des investisseurs institutionnels, la diminution des taux d’imposition et la restructuration des programmes de prises de participation seraient à cet égard nécessaires. La présente étude examine les tendances des marchés suédois du capital-risque et expose les recommandations pratiques qui ont été formulées à ce sujet dans le cadre d’un processus d’examen par les pairs mené à l’OCDE.

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ASSESSMENT AND RECOMMENDATIONS

Sweden has one of the highest levels of private equity investment as a share of GDP among OECD countries. Despite the recent downturn in global technology and financial markets, the Swedish private equity market has shown considerable resilience. However, its strength lies in later-stage investments, which make up about 65% of the total, coming mainly from foreign investors. This reflects an industrial structure based on large manufacturing conglomerates, which have been the traditional focus of Swedish business policies. As a result, the domestic venture capital industry remains somewhat immature, and small start-ups continue to have relatively less access to funding than larger firms.

Following strong growth in the 1970s and 1980s, the financial crisis in Sweden in the early 1990s dealt a severe blow to the emerging venture capital industry. The Swedish government attempted to revitalise venture activity by establishing two small equity funds (*Atle* and *Bure*), proposing tax deductions for venture investors, liberalising investment rules for selected public pension funds, and deregulating the main stock exchange. Despite a booming stock market and increasing interest from foreign investors, these initiatives did less to activate domestic venture capital activity. A lack of entrepreneurial demand, a dearth of equity-related management expertise as well as a confusing array of small-scale government schemes were at fault.

In recent years, the government remodelled *NUTEK* (the Swedish Business Development Agency) to direct funding to early-stage firms together with *Industrifonden*. Secondary stock markets were consolidated and attempts made to establish Nordic-wide platforms for initial public offerings (IPOs) of smaller firms. The Swedish government is now considering liberalising rules for institutional investors to broaden the venture capital pool and giving capital gains tax relief to companies investing venture funds. In a regulatory and fiscal system which has traditionally been geared to large companies and financial groups, more extensive measures may be needed to energise the venture capital industry and support growth of small, technology-based firms in Sweden. These include removing quantitative restrictions on venture investments by financial institutions, lowering tax rates, and consolidating and focusing equity programmes. A summary of progress and recommendations concerning Swedish venture capital policies is given in **Table 1**.

Table 1. Progress and recommendations on Swedish venture capital policies

Area	Recent/planned action	Recommendations
Investment regulations	Regulations on public pension funds and individual retirement savings modified to expand allowable investments in venture capital.	Remove quantitative restrictions on venture investments by institutional investors including private pension funds.
Tax incentives	Government is considering proposal to exempt companies investing venture capital in other companies from capital gains taxes.	Consider lowering capital gains taxes and removing wealth taxes to stimulate investments by entrepreneurs and business angels.
Equity programmes	*Industrifonden* in co-operation with *NUTEK* (Swedish Business Development Agency) runs a small seed funding programme.	Consolidate public equity programmes and focus on pump-priming private financing for start-ups.
Business angel networks	*SwedBan, CapTec* and the *Nordic Venture Network* all working to link business angels with investment opportunities.	Ensure linkages between business angel networks and technology incubators as well as spin-offs from public research.
Second-tier stock markets	*Nordic OTC* created to provide common Nordic platform for unlisted companies.	Encourage creation of a single second-tier stock market at Nordic and/or European level.

TRENDS IN VENTURE CAPITAL MARKETS

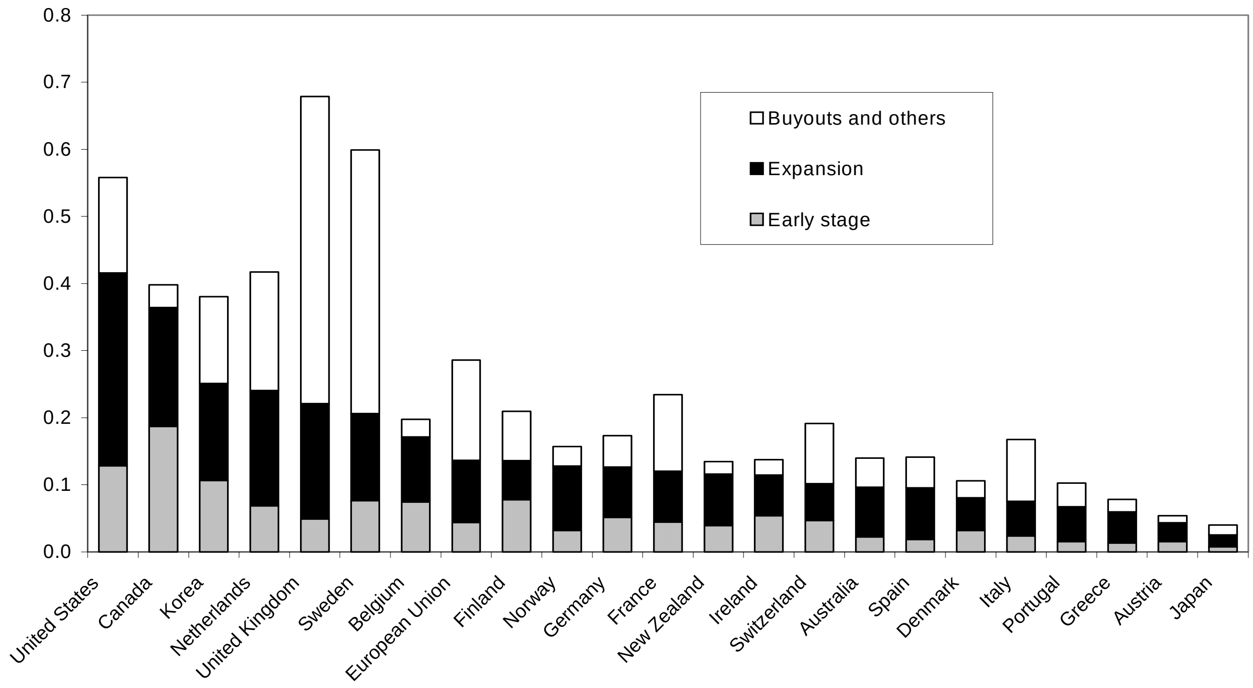
Overview

Sweden now ranks among the leading OECD countries in terms of private equity investments as a share of gross domestic product (GDP) (**Figure 1**). Overall, Sweden had the fastest growing capital market among OECD countries during the second half of the 1990s. But, like some other OECD countries such as the United Kingdom, the largest share of equity investments has been targeted to later-stage deals, primarily management buy-outs. Although Sweden ranks sixth in the OECD in terms of venture investments in early-stage and expansion firms, its overall profile has been one of financing larger, more mature corporations in traditional industry sectors. Sweden's economy has long been based on large manufacturing conglomerates for whom taxation, corporate finance and regulatory systems have been framed.

After a strong beginning in the late 1970s and rapid growth in the 1980s, a financial crisis in the early 1990s and subsequent economic recession negatively affected the development of venture capital markets in Sweden. Most venture capital funds - both public and private – exited at this time. Following several years of slow growth, Sweden experienced a boom in venture capital investment in the late 1990s when the total increased tenfold, from SEK 1.8 billion in 1998 to SEK 18.9 billion in 2001 (**Figure 2**). This was largely due to vast capital inflows from foreign investors, both European and non-European, who became active players in the Swedish market. Swedish venture capital funds acted quickly to increase co-operation with international funds to strengthen industry networks and minimise the negative effects of the global market downturn beginning in 2000.

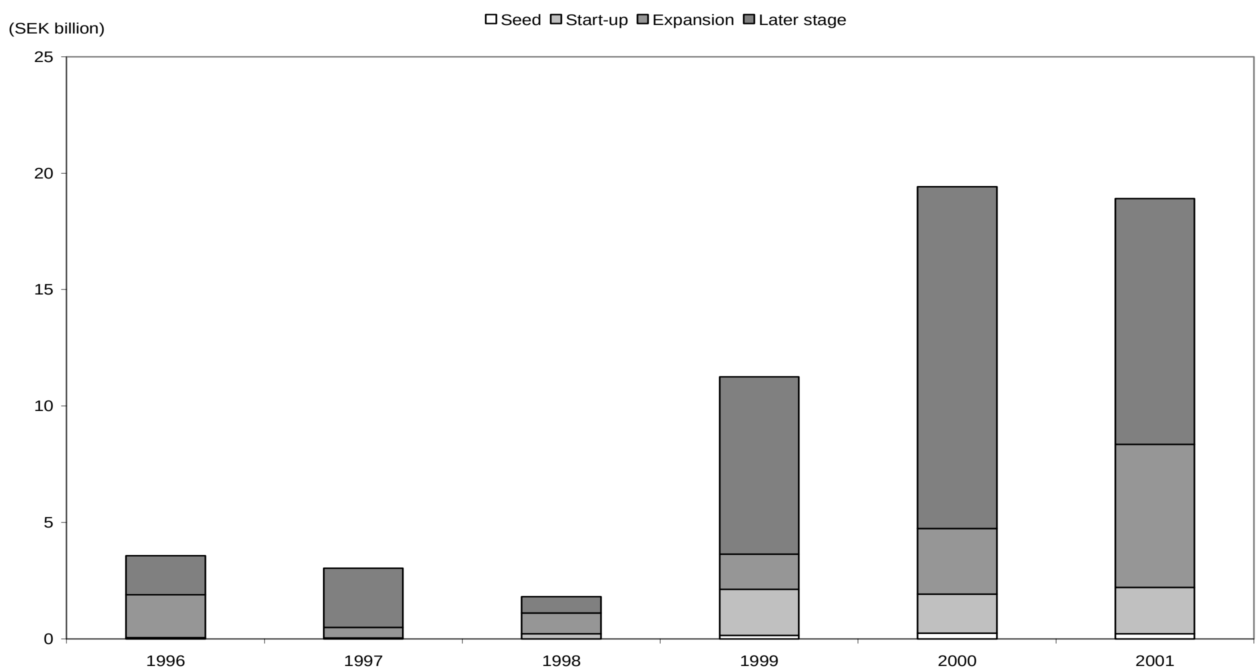
As a result, the Swedish venture industry consolidated through fund mergers and closures and had a less pronounced correction in venture investment levels compared to other OECD countries in 2001-2002. This is despite the technology bust worldwide and the largest decline ever on the Swedish stock market, largely related to the fall in Ericsson shares. It is estimated that in 2002, the number of venture capital investments or deals declined by 25% and the amount of investment by over 50% from 2001. The most severe decrease has been in investments in early-stage firms in the seed and start-up phases, which may also be accounted for by falling demand from smaller enterprises.

Figure 1. OECD venture capital investment by stage as a percentage of GDP, 1998-2001



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

Figure 2. Swedish venture capital investment by financing stage, 1996-2001

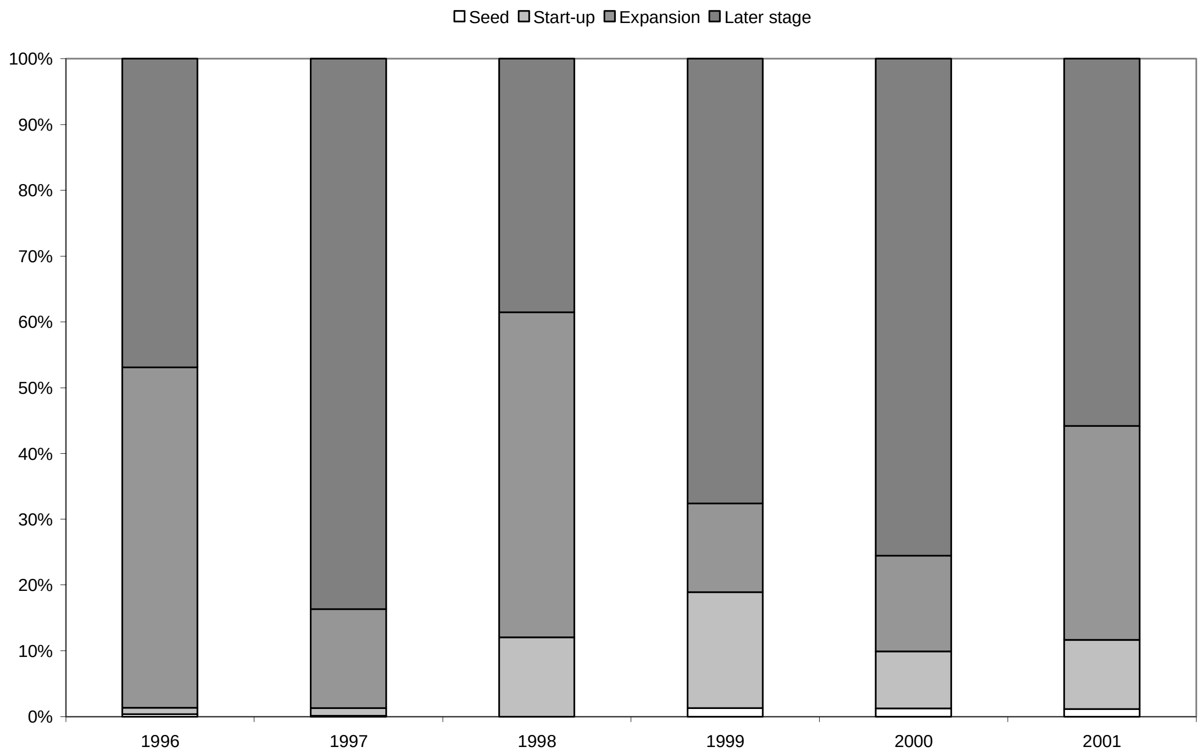


Source: EVCA, 2002.

Investment by stage and deal size

The majority of Swedish venture capital investments have traditionally been targeted to later stages, *i.e.* replacement capital and buy-outs, which have accounted for on average 60% of total investment in the second half of the 1990s (**Figure 3**). Although later-stage deals declined in 1998 as start-up and expansion funding increased, they grew again to account for the lion's share of investment in 2000. Buy-outs accounted for over 50% of the capital invested in 2001 accompanied by a strong increase in expansion investments. At the same time, the average deal size increased. This partly reflects the recent changes in the type of venture capital transactions, in particular the rise of syndicated deals around larger investments with international funds. However, this financing profile also reflects an industrial structure based on larger manufacturing companies. There is concern about the long-term sustainability of these larger deal flows, with a 50% decline in the total number of business plan proposals reported in 2001 and the fall in overall investment in 2002.

Figure 3. Swedish venture capital investment by financing stage



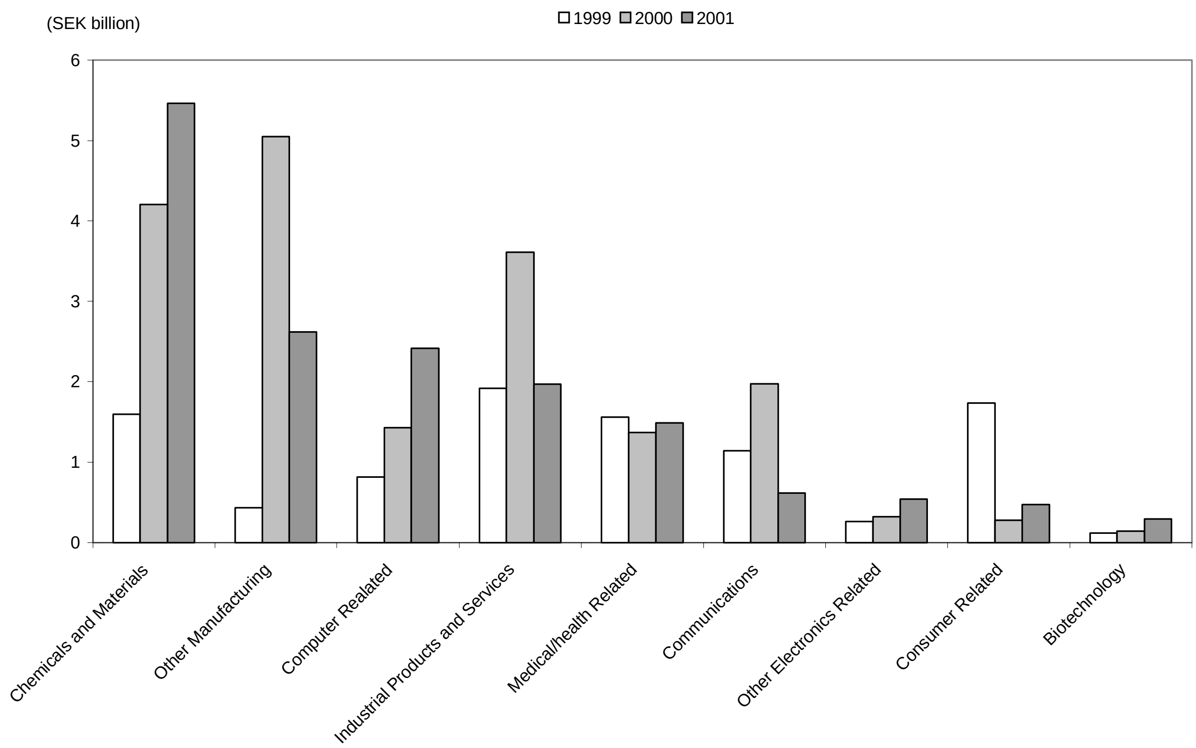
Source: EVCA, 2002.

Sweden has had some difficulty in sustaining venture capital financing in early-stage companies. In 2001, the number of seed financing deals reduced by more than half and start-up financing declined by 38% compared to the peak in 1999. Seed and start-up financing for new firms – which together are considered "early-stage" – constituted 1.2% and 10.5% of the total amount invested in 2001. Investments in the expansion of companies, on the other hand, doubled from the 1999/2000 level and reached 32% of the total in 2001. This, however, was still well below the proportion of expansion funding in earlier years such as 1998. The recent compositional trend towards more expansion investments in Sweden may be partly a cyclical adjustment. During market downturns, venture capitalists tend to concentrate on developing existing portfolio companies and give support to investments with proven business models rather than to riskier start-ups. The fall in the valuation of companies in the expansion stage that were previously overvalued could be another factor contributing to heightened interest in these firms in recent years.

Investment by sector

Swedish venture capital has tended to be concentrated in traditional manufacturing sectors, which are the normal targets for later-stage and larger deals. In terms of the value of investments, *i*) chemicals and materials and *ii*) other manufacturing attracted the largest amount of private equity capital in 2001, receiving 29% and 14% of the total respectively (**Figure 4**). However, the Swedish venture capital market is experiencing a shift towards high-technology sectors building on a comparative advantage in the telecommunications and health care industries. In 2001, information technology attracted the highest number of deals, with computer-related investments representing 30% and communications 17% of the total. Investments in life sciences increased to 19% and biotechnology represented 4% of total deals in 2001. Although smaller in value, the increasing number of investments in technology-based sectors in Sweden reflects growing activity by domestic venture investors willing to engage in riskier transactions.

Figure 4. Swedish venture capital investments by sector, 1999-2001



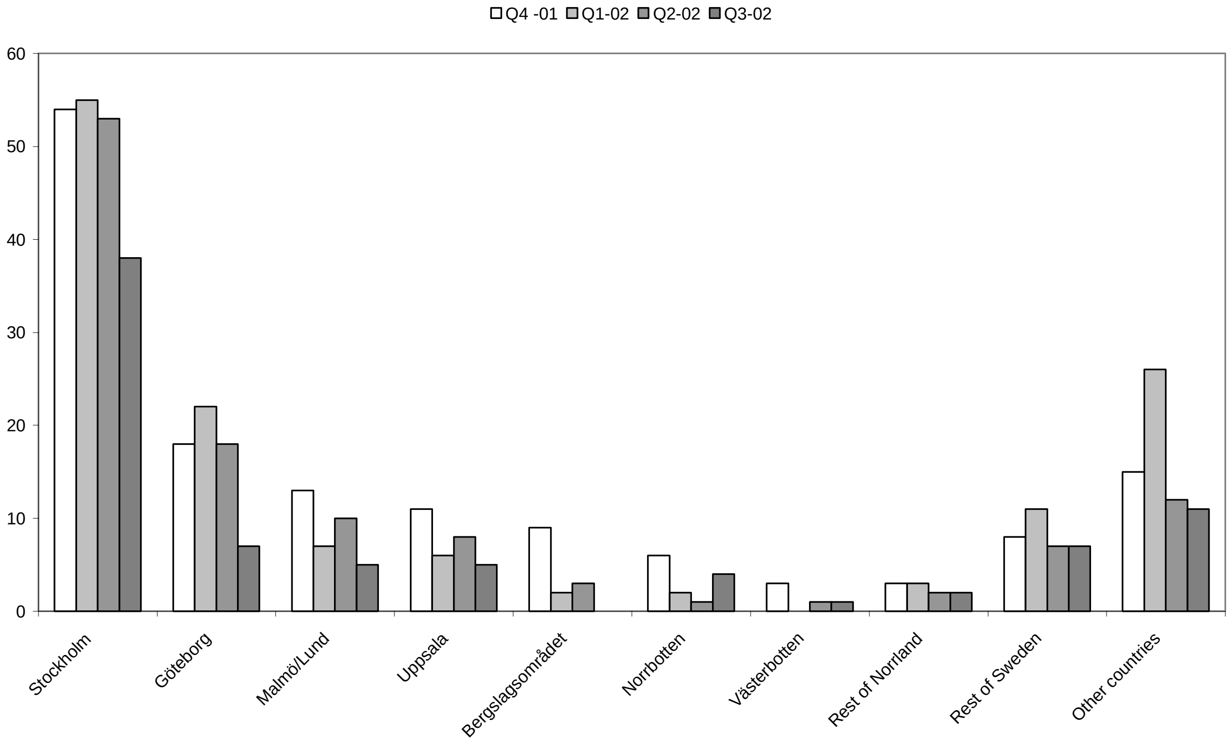
Source: EVCA, 2002.

Investment by region

As in most OECD countries, venture capital activity in Sweden is regionally concentrated (**Figure 5**). The majority of firms in all sectors that receive venture capital financing are located in the Stockholm area. Stockholm has more recently become the centre of activity with regard to information and communications technologies (ICT) and telecommunications, which attract a high level of venture funds. Ericsson, in particular, has been a driving force behind the development of information technology-related firms, also acting as a corporate investor. Stockholm-Kista has emerged as one of the leading global hubs of technological innovation, where the information technology cluster consists of 350 high technology companies and a number of research institutes.

The share of other regions in venture investments is gradually increasing. For example, the development of the biotechnology cluster in Uppsala has recently attracted risk finance providers to the region. Uppsala University and the Swedish University of Agricultural Science have also united to create their own venture capital fund. Well-established pharmaceutical companies, such as AstraZeneca, and Pharmacia, have intensified co-operation with academic institutions to further the commercialisation of scientific research, especially in the life sciences sector.

Figure 5. Swedish investment activity by region



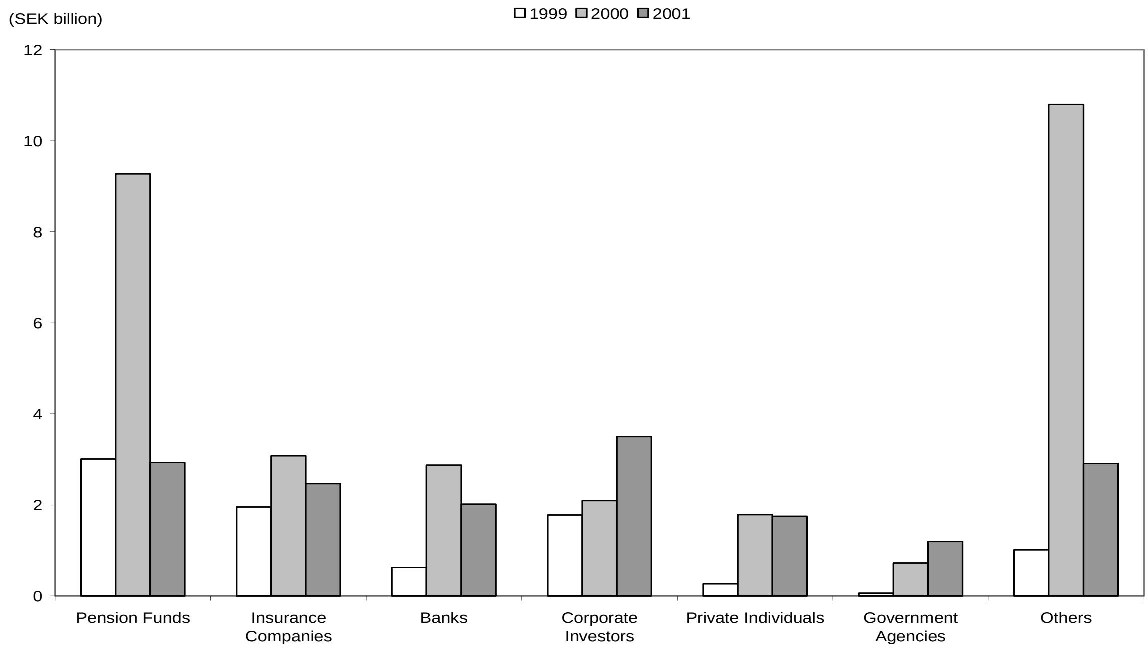
Note: Number of deals involving domestic funds from fourth quarter 2001 to third quarter 2002.
Source: NUTEK, 2002.

Funds raised by source

Financial institutions and corporate investors have played an important role in the development of the Swedish private equity market, which has also benefited from large inflows of foreign funds. In the late 1990s, a new pension system and changes in insurance regulations allowed more diversified sources of funds to be channelled to venture capital. By 2000, pension funds and insurance companies contributed 35% and 12% of new funds raised, respectively (**Figure 6**). Although pension fund contributions declined to 18% in 2001, the share of corporate investors increased to 22%, mainly as a result of a change in the funding position of a few large corporations. As in other OECD countries, the funding environment was negatively affected by the stock market downturn and weaker IPO options in 2001, and there was a 45% decline in the amount raised by private equity funds.

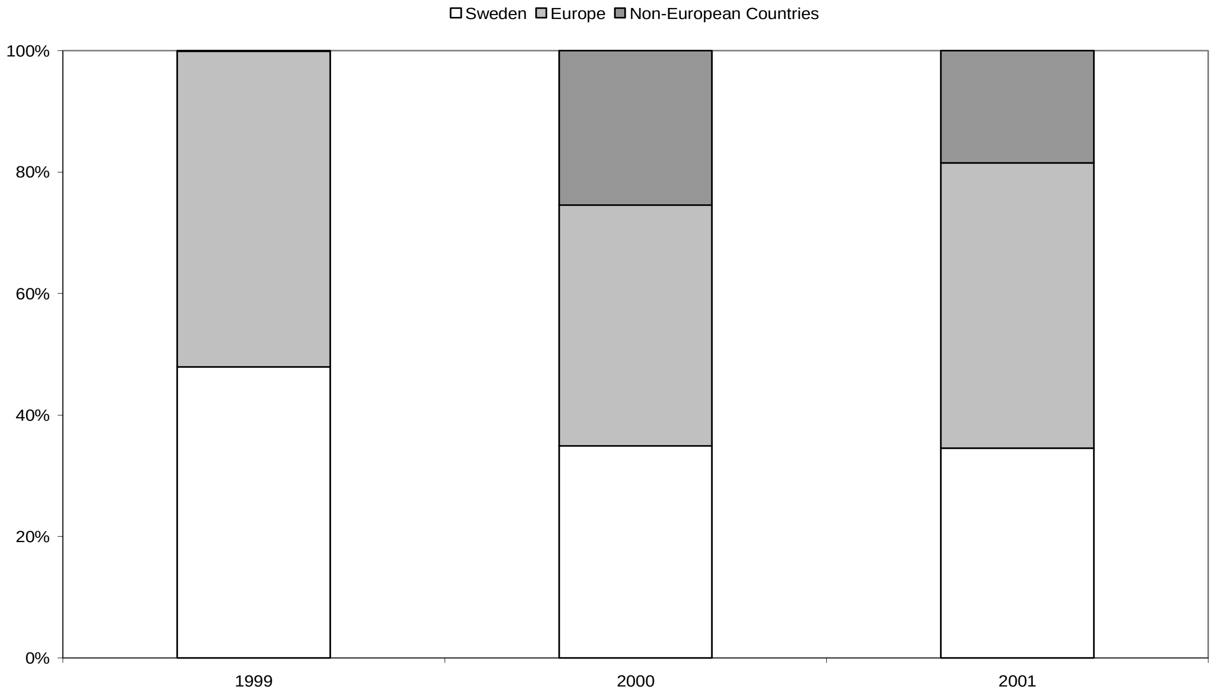
Sweden's strong research and development efforts and recent shift to a more technology-based economy has gained the country a particular advantage in attracting international capital. By 1999, more than 50% of Swedish venture capital funds were raised from foreign investors, mostly European, particularly the United Kingdom, Finland and Germany (**Figure 7**). Foreign inflows from non-European countries, particularly the United States, then increased exponentially: in 1999, less than 0.1% of Swedish venture funds had been raised from outside Europe, compared to 25% in 2000 and 19% in 2001. The share of domestic sources decreased in these years to around 35% of total venture investments. Although Sweden's growing technology base has been important in increasing foreign capital inflows, tax benefits from venture investments may be relatively more attractive to foreign than to domestic investors.

Figure 6. Swedish private equity raised by source, 1999-2001



Source: EVCA, 2002.

Figure 7. International source of funds raised, 1999-2001



Source: EVCA, 2002.

VENTURE CAPITAL POLICIES AND PROGRAMMES

Overview

Swedish economic activity has traditionally been organised around large corporations with a strong international focus. However, the role of small growth-oriented firms in the economy has increased in recent years following technological advances, particularly in ICT-related areas and health care including biotechnology. The government needs to ensure that the venture capital environment will sustain growth in the small firm sector.

The Swedish government has experimented with different direct and indirect initiatives to increase venture funding. The first venture capital funds and regional investment companies were created in the early 1970s to provide long-term loans and equity financing for start-ups, but most funds disappeared during the financial crisis of the early 1990s. Staring in the mid-1990s, modifications were made to selected investment regulations, two small public equity funds were established and reforms were undertaken to the main stock exchange. Small technology-based firms still have less access to funding compared to larger corporations, who benefit from inflows of equity capital from foreign sources. The challenge for the Swedish government is to sustain the trend towards venture investments in small growth firms in technology-based sectors.

Investment regulations

Institutional investors are now playing a greater role in the development of the Swedish venture capital industry. Sweden has traditionally had a strong banking sector which was heavily regulated until the mid-1980s. The deregulation of financial markets at that time led to rapid lending growth and a financial crisis in the early 1990s. Although the banking sector restructured and consolidated, it is a lesser source of funds to venture capital markets accounting for, on average, 10%-12% of total inflows.

A major source of venture capital for smaller start-ups was unleashed in the mid-1990s when Sweden introduced changes to regulations relating to certain public pension funds. Previously, these pension funds had an upper limit of 70% for investment in equities, only 5% of which could be allocated to the private equity asset class. In 1996, the *Sixth Swedish National Pension Fund* was created to provide risk capital for small and medium-sized businesses (**Box 1**). The Sixth Fund has an unrestricted mandate to invest in Swedish private equities and currently is one of the largest domestic venture investors, although it accounts for a very small share of overall public pension assets. In 1999, the rules governing other public pension funds were similarly liberalised to allow greater investment in venture capital. In addition, modifications were made to allow individuals to select their own investments as part of their retirement savings, which was expected to increase the share of private equity in individual investment portfolios. In order to reduce the risk for pensioners and taxpayers, pension fund involvement in venture funding needs to be accompanied by heightened oversight, transparency and accountability.

Sweden is now considering a further loosening of regulations on private institutional investors including the development of new rules not based on quantitative restrictions. Proposals include determining allowable investment levels according to portfolio rules based on asset liability matching or authorising institutions to operate as public rather than private funds through applications to the Swedish Financial Supervisory Authority. Sweden is also investigating the implications of the application of the EU directive on *Undertakings for Collective Investment in Transferable Securities* (UCITS), which would broaden the scope of allowable investments by funds managed by institutional investors. In order to expand the range of players in the domestic venture capital market, the government should remove quantitative restrictions on the level of venture investments which can be made by private sector institutions including private pension funds.

Box 1. Sixth Swedish National Pension Fund

The *Sixth Swedish National Pension Fund* was established in 1996 to contribute to the pool of risk capital finance for small and medium sized companies. From its inception, the fund's capital has increased from SEK 10.4 billion to SEK 16.7 billion. Currently, the fund has participation in around 350 Swedish businesses, of which 64 are direct investments and the others are via private equity funds and investment firms. The fund has significant diversification in terms of stage of investments, from early-stage through expansion to buy-out. Information technologies and life sciences are the primary sectors to which the fund investments are channelled given the perceived growth potential of these sectors. In addition to capital, the fund provides complementary support services to portfolio companies on business development and management and market analysis.

Source: Sixth Swedish National Pension Fund, 2002.

Tax incentives

Despite significant rate reductions made in recent years, Sweden has one of the heaviest overall tax burdens – including both personal and corporate income taxes and a "wealth tax" on an individual's worldwide assets – in the OECD, exceeding 45% of GDP. An earlier survey of entrepreneurship in Sweden pointed to high taxation of labour income and lack of demand as greater impediments to enterprise growth than inadequate financing (OECD, 1998). Sweden has limited fiscal incentives to venture investments (OECD, 2002*a*). In 1993, as part of an industry revitalisation package, tax deductions were proposed for private investors who channeled equity to small businesses, with a minimum holding period of five years. However, the proposals failed to stimulate sufficient interest in venture investments in small firms and the scheme was cancelled shortly thereafter.

The basic capital gains tax rate in Sweden is 30% for individuals and 28% for corporations. Under certain circumstances, dividends received by individuals from private equities can benefit from a tax deduction, although there are no similar provisions for venture funds or corporations. The Swedish government is now considering a proposal (to become effective in July 2003) to exempt companies investing venture capital in other companies from capital gains tax on subsequent profits to increase financial resources for re-investment. There is speculation that Swedish venture capital sources may be moving offshore to more favourable tax locales, thus contributing to the increasing inflows of "foreign" venture capital. Sweden should simplify and increase the neutrality of the tax regime governing venture investors and consider more favourable tax rates on wealth and capital gains to stimulate entrepreneurs and business angel investments.

Equity programmes

The Swedish government has played an important role in the development of the domestic venture capital industry. The first venture capital fund was established in 1973 as a collaboration between the government and the private sector. By the mid-1980s, the number of private and public venture capital funds were 20 and 30, respectively. For example, *Företagskapital* was created in 1973 by the government together with merchant banks. Regional development funds and corporations were also launched during this period. Regional investment companies were developed in the late 1970s, based on the Small Business Investment Company (SBIC) programme in the United States, to provide managerial advice and seed capital for small businesses. However, the public, private and hybrid funds suffered from their small size, inexperienced management teams as well as unfavourable fiscal provisions. After a period of rapid growth in the 1980s, most of these funds were dissolved during the financial crises of the early 1990s (Karaomerlioglu and Dahlstrand, 2000).

The Swedish government attempted to revitalise the venture capital market in the 1990s through the creation of two investment funds, *Atle* and *Bure*, with total resources of SEK 6.5 billion for investment in high-growth start-ups. However, largely due to the risk-aversion and inexperience of management, the majority of capital was invested in larger, later-stage firms, and the government equity funds failed to fulfill their mandate. In 1993, the Swedish government sold its shares in *Atle* and *Bure,* which were listed on the Swedish Stock Exchange. However, the government continued to hold 10% of their shares indirectly through public sector pension funds. In 2001, *Atle* was purchased in its entirety by *3i*, one of the world's largest investment funds.

In the 1990s, Swedish start-ups benefited from programmes provided by *NUTEK* (the Swedish Business Development Agency) which was responsible for early-phase financing of technology development projects. *NUTEK* offered supplementary financing to small enterprises that pursued technology projects with good growth potential, as well as to entrepreneurs and innovators who intended to start up technology-based companies. *NUTEK* also provided co-ordinated financing services with other public financing bodies, *e.g.* the *Sweden Innovation Centre* (SIC), *ALMI Foretagspartner AB* and the *Swedish Industrial Development Fund*. *ALMI*, founded in 1994, primarily provided loans to start-ups (*nyforetagarlan*). An evaluation of *NUTEK* programmes by Statistics Sweden in 2002 showed that firms which had received financing in 1996 had, on average, more than doubled their annual turnover and number of employees by 2000.

NUTEK and ALMI were merged in 2000 in an attempt to reduce the number of public bodies in the venture capital arena. *NUTEK* now works through *Industrifonden* (the National Industrial Development Fund) to finance seed companies through three regional subsidiaries (*Saddfinansiering*). Applications for venture financing are first made by firms to *NUTEK*, which then approves or rejects the request. Positively appraised requests are sent to *Industrifonden* for a further judgment. Once approved by *Industrifonden, NUTEK* works with the firm to develop a business and project plan, which is sent to *Industrifonden*, where final financing decisions are made. Not only has this process proved laborious and time-consuming, but *Industrifonden* has rejected many of the *NUTEK* proposals for seed financing.

There are also two other small sources of funds for technology-based start-ups (**Box 2**). *Stiftelsen Innovationscentrum* (SIC), which will operate until 2004, provides funding to support commercially interesting innovations in the early developmental phases, and *Teknikbrostiftelserna* (Technology Bridge Funds*)*, which will operate until 2007, supports technology-based spin-offs at Sweden's main universities. Sweden should consolidate and simplify its public equity funds and target them more to pump-priming private funding of early-stage firms.

Box 2. Government venture capital funds in Sweden

Industrifonden (National Industrial Development Fund) -- *Stiftelsen Industrifonden* participates in financing growth companies through subscription of equities and shares to strengthen a company's capital base. The fund has assets of just over SEK 4 billion for this purpose. While contributing capital and expertise, the fund has no interest in taking control of companies. Since 2002, Industrifonden has collaborated on seed funding decisions with NUTEK, although actual financing is done by Industrifonden.

Stiftelsen Innovationscentrum (SIC) -- SIC was funded for the period 1994-2004 at which time its capital should be depleted. The fund started with SEK 500 million from employee investment funds, giving the foundation access to about SEK 90 million per year (including dividends). The goal of the foundation is to financially support and encourage interesting innovations in the early stages of development.

Teknikbrostiftelserna (Technology Bridge Funds*)* -- The goal of *Teknikbrostiftelserna* is to take advantage of the knowledge and expertise found at Sweden's universities to contribute to the country's growth. The seven independent Teknikbrostiftelserna, which are located in different university towns in Sweden, have a total of about SEK 1 billion in capital at their disposal to support spin-offs until the dissolution of the funds in 2007.

Business angel networks

Business angel networks in Sweden aim to link an estimated 3 000 angels with venture capital investment opportunities. The Swedish Business Angel Network (*SwedBan)* was founded in 2001 as a private initiative organised in the form of an economic for-profit association. *SwedBan* has a board of directors consisting of ten persons, all from the private sector. It intends to create a number of local and regional platforms or forums for matching entrepreneurs and business angels and to provide angels with deal flows, opportunities to co-invest with other angels, and an exit to the formal venture capital market. *SwedBan* also plans to set up an Internet matching site.

NUTEK has various projects to develop regional and local business angel networks. This includes *Cap Tec,* where young companies in the early technological development phase can present themselves to potential investors, whether venture capital companies, business angels or corporate investors. The *Forum för Småföretagarforskning* (Forum for Small Business Research) (FSF) in collaboration with NUTEK is following the growth of business angel networks. NUTEK also operates an Internet database (*Riskkapitaldatabasen*) where start-ups can research sources of venture capital.

Networking events are also sponsored by the *Swedish Venture Capital Association* (SVCA), which was founded in 1985. SVCA has grown almost threefold since the late 1990s and currently has 145 members, although the membership declined 10% from its peak in 2001 in line with consolidation in the venture capital industry. SVCA holds fora, including targeted sessions for women entrepreneurs and investment managers, with Nordic venture capital associations and other international venture investors to promote co-investment opportunities. The *Nordic Venture Network* (NVN), which was initiated in 1999 and formalised in 2001, is a cross-Nordic club of venture capital firms which promote linkages between business angels, venture capital firms and small start-ups. The main objective of NVN is to promote a competitive Nordic environment for high technology venture capital investments. A further step in increasing the effectiveness of business angel networks would be to enhance the linkages between networks at the local, regional, national and Nordic levels to prevent information gaps and duplicative efforts. The government should also ensure that angel networks are connected to research institutes, technology incubators and public programmes to link investors and firms and build synergies in the venture market.

Second-tier stock markets

The formation of the Swedish over-the-counter (OTC) market in 1982 and the strong performance of the main stock market following financial liberalisation in the mid-1980s contributed to the initial development of the venture capital industry in Sweden. However, as financial and economic conditions deteriorated in the early 1990s, exit options on the stock market fell for all types of firms. The main stock exchange, *OM Stockholmsbörsen*, was deregulated in 1993 and its monopoly on equity listings was abolished. Three new markets were established to improve OTC listings ("O-lists") for smaller technology-based companies: *AktieTorget* for the smallest companies, *Stockholm Bourse Information* (SBI) for listing unofficial quotations before a company is introduced to public markets, and *Innovationsmarknaden* (IM) for growth stocks. The latter two were merged in 1998. In addition, deregulation resulted in alternative systems such as *Göteborglistan* and *H&Q Tech Market* where unofficial trading takes place through brokers.

The second-tier markets have played a major role in financing the development of growth companies and offering exit routes to investors in Sweden. During the late 1990s, stock market capitalisation on these Swedish O-lists increased relative to GDP, surpassing that of the United States in 2002 (**Table 2**). Several changes in the taxation rules for ownership of unlisted stocks contributed to this growth. In 1997, a partial corporate tax exemption was introduced for all equity listed on the O-lists of the stock market. More recently, options to keep profits in special reserve accounts while awaiting taxation were increased from five to six years, and the amount of profits allowed to be put into these funds grew by 5% for all businesses and self-employed persons from the 2001 tax year.

However, since the deflation of technology markets that began in early 2000, IPOs have greatly decreased, equity prices in growth companies have fallen and operations in the Swedish second-tier markets have generally slowed. At the same time, there have been attempts to create Nordic-wide stock exchanges, including the *NORDEX* Nordic Exchange, which is an alliance between the Copenhagen Stock Exchange, the Iceland Stock Exchange and the *OM Stockholmsbörsen.* In early 2003, the Swedish-based Nordic Growth Market or NGM Equity established the *Nordic OTC,* a market for small and medium-sized growth firms, with the intent of creating a common Nordic platform for unlisted companies. The government should encourage the creation of a single secondary stock market with scale economies for growth companies through joining with Nordic and/or European partners.

Table 2. Second-tier stock markets in OECD countries

Country (stock market)	Year of creation	Number of initial public offers (IPOs)				Number of quoted companies				Market capitalisation (% GDP)			
		1999	2000	2001	2002	1999	2000	2001	2002	1999	2000	2001	2002
Sweden (O-List)	1988	..	..	24	9	150	228	240	235	28.3	24.0	23.3	18.5
United States (NASDAQ)	1971	485	397	63	35(1)	4 829	4 734	4 109	3 765(1)	56.5	36.9	28.9	16.5
Canada (Canadian Venture Exchange)(2)	1999	2 425	403	330	122	2 358	2 598	2 688	2 504	1.7	10.2	12.7	9.7
Korea (KOSDAQ)	1996	160	250	181	176	453	604	721	843	22.0	5.6	9.5	5.0
United Kingdom (AIM)	1995	67	203	109	78	347	524	629	704	1.5	1.6	1.2	1.0
Ireland (ITEQ)	2000	---	..	..	..	---	7	8	8	---	3.6	1.7	0.7
Italy (Nuovo Mercato)	1999	6	32	5	0	6	40	45	45	0.6	2.2	1.2	0.6
Germany (Neuer Markt)(3)	1997	132	132	11	1	201	338	326	240	5.7	6.0	2.4	0.5
France (Nouveau marché)	1996	32	52	9	2	111	158	164	154	1.1	1.7	1.0	0.5
Switzerland (SWX New Market)	1999	6	11	1	0	6	17	15	9	..	3.0	0.9	0.2
Finland (NM List)	1999	..	..	..	..	..	17	16	15	..	0.7	0.3	0.2
Denmark (Dansk AMP)	2000	3	0	1	3	3	3	4	7	0.1	0.1	0.1	0.1
Spain (Nuevo Mercado)	2000	---	..	..	..	---	12	..	14	---	3.4	..	..
Japan (Mothers in Tokyo)	1999	2	27	7	8	2	29	..	..	0.2	0.1	..	..
Japan (Hercules in Osaka)(4)	2000	---	..	43	..	---	..	32	..	..	..	0.3	..
Netherlands (EURO.NM Amsterdam)(5)	1997	1	2	---	---	13	15	---	---	0.3	0.2	---	---
Belgium (EURO.NM Belgium)(5)	1997	6	3	---	---	13	16	---	---	0.2	0.2	---	---
NASDAQ Europe	2001	---	---	..	..	---	---	49	43	---	---	---	---
Austria (Austrian Growth Market)(6)	1999	..	..	---	---	2	2	---	---	0.01	0.01	---	---
Europe (EASDAQ)(5)	1996	..	..	---	---	56	62	---	---	---	---	---	---

(1) End of September.
(2) Data includes both high-growth firms' shares and shares of investment funds.
(3) The Neuer Markt segment will be discontinued after a transition period at the end of 2003.
(4) Previously NASDAQ Japan.
(5) In 2001, EURO.NM (EURO.NM Belgium and EURO.NM Netherlands) and EASDAQ merged and became NASDAQ Europe.
(6) On April 2001, the two stocks in the AGM segment were transferred to the Specialist Segment of Wiener Börse.
Source: Compiled by OECD Secretariat from national sources.

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