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VENTURE CAPITAL POLICY REVIEW: KOREA

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Günseli Baygan

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VENTURE CAPITAL POLICIES IN KOREA

Günseli Baygan

Abstract

The Korean venture capital market has grown dramatically in recent years, starting from a negligible base in the early 1990s and almost tripling between 1998 and 2001. Korea now ranks among the leading OECD countries in venture capital investment as a share of GDP. Korea weathered the severe financial crisis of 1997-98 to face the challenge of reducing the influence of large corporations (the *chaebol*) and augmenting the role of technology-oriented small firms. The government jump-started the venture capital market in 1998 through direct infusion of equity capital, generous tax incentives and equity guarantees, and the designation of certain small firms as “venture businesses”. Concerns relate to the need to further privatise the venture capital system and to increase the supply of investment-ready small firms. This paper analyses trends in Korean venture capital markets and makes policy recommendations which have been developed through an OECD peer review process.

POLITIQUES DE CAPITAL-RISQUE EN CORÉE

Günseli Baygan

Résumé

Le marché coréen du capital-risque, d'importance négligeable au début des années 1990, s'est très fortement développé ces dernières années : il a presque triplé entre 1998 et 2001. En pourcentage du PIB, la Corée se situe désormais parmi les pays de l'OCDE les plus avancés pour ce qui concerne l'investissement en capital-risque. La Corée a subi la forte crise financière de 1997-98 et a réussi à relever le défi consistant à réduire l'influence des grandes entreprises (les *chaebol*) et à accroître le rôle des petites entreprises de technologie. En 1998, le gouvernement a pris l'initiative de développer le marché du capital-risque en procédant à des injections directes de capitaux, en octroyant des aides fiscales et des garanties du capital généreuses, et en accordant à certaines petites entreprises le statut d'« entreprises à risque élevé ». Les sujets de préoccupation sont essentiellement la nécessité de privatiser davantage le système de capital-risque et celle d'accroître le nombre de petites entreprises répondant aux critères des investisseurs. Ce document analyse les tendances des marchés coréens 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

The Korean venture capital market has grown dramatically in recent years, starting from a negligible base in the early 1990s and almost tripling between 1998 and 2001. Korea now ranks among the leading OECD countries in venture capital investment as a share of GDP and third in the share of venture capital being channelled to start-up enterprises (after the United States and Canada). Venture capital contributed to a proliferation of start-ups in high-technology sectors such as information and communications technology (ICT), which accounted for 64% of venture investments in 2001.

Korea weathered the severe financial crisis of 1997-98 to face the challenge of reducing the influence of large corporations (the chaebol) and augmenting the role of technology-oriented small firms. The government jump-started the venture capital market in 1998 through direct infusion of equity capital. Certain small firms were designated “venture businesses” which are eligible for investments from venture capital firms (VCFs) and limited partnerships funds (LPFs), both funded largely by the government and the chaebol. A government venture capital fund -- Dasan Venture -- was set up in 2001 to provide seed money to start-ups as were a number of government-backed LPFs to focus on SMEs in particular industrial sectors. Generous tax incentives are provided to investors in VCFs and LPFs. The government also provides investors with 70%-100% equity guarantees on investments in certain venture businesses.

Venture capital in Korea is a recent phenomenon, closely linked to the rise in technology stocks in the late 1990s. Concerns relate mainly to potential mismatches in demand and supply for venture capital over the long-term and the need to privatise the venture capital system. More attention should be given to increasing the supply of investment-ready small firms and the private sector role in venture funding. Government programmes should focus on leveraging and diversifying private sources of venture capital and moving small firms away from dependence on debt-financing and public funding. A summary of progress and recommendations concerning Korean venture capital policies is given in **Table 1**.

Table 1. Progress and recommendations on Korean venture capital policies

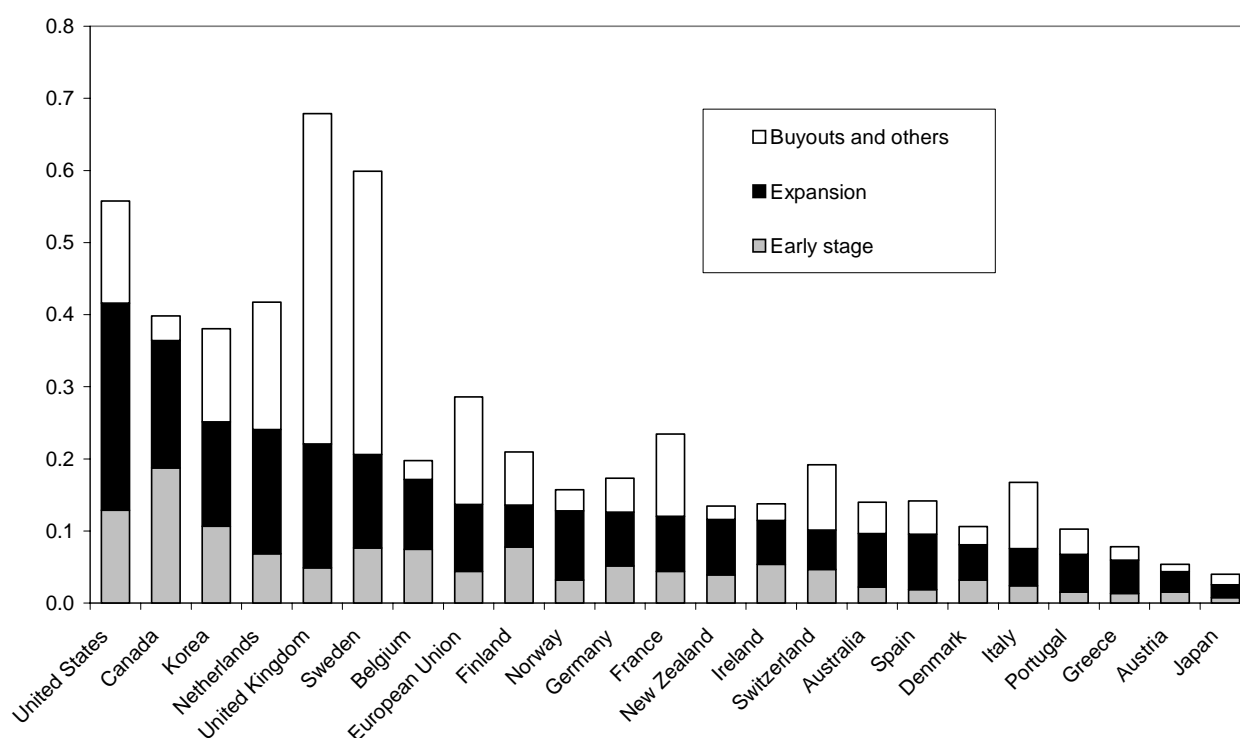
Area	Recent/planned action	Recommendations
Investment regulations	1997 Special Measures Law for Fostering Venture Businesses allowed for venture investments by banks, institutions, pension funds, etc.	Proceed with privatisation of banks and liberalisation of institutional investment to expand range of investors in venture capital markets.
Tax incentives	Reductions in corporate income tax and capital gains tax for investors in VCFs and LPFs.	Target tax incentives more to individual investors in small firms and venture businesses.
Equity programmes	Several targeted government equity programmes including Dasan Venture, sector-based LPFs, and equity guarantees from the Technology Credit Guarantee Fund.	Achieve greater leverage of private funding and reduce the level of government equity contributions and equity guarantees.
Business angel networks	Creation of an Angel Investment Mart to match VCFs, start-ups and business angels.	Stimulate angel activity by promoting direct selection and investment in start-ups by individuals.
Second-tier stock markets	KOSDAQ created in 1996 for high-technology start-ups; exit procedures for venture businesses enhanced in 2002.	Encourage more foreign participation in KOSDAQ.

TRENDS IN VENTURE CAPITAL MARKETS

Overview

Korea has seen remarkable growth in venture capital supply in the last four to five years, after many years of virtually non-existent markets and sluggish performance. The growth in venture capital is further evidence of Korea's impressive economic recovery from the financial crisis at the end of 1997 and the severe recession during 1998. Korea has implemented structural reforms to rectify the underlying weaknesses that had made the country vulnerable to financial crisis. Korea now ranks among the leading OECD countries in venture capital investment as a share of GDP and has by far the largest venture capital market relative to its economy among Asian countries (**Figure 1**).

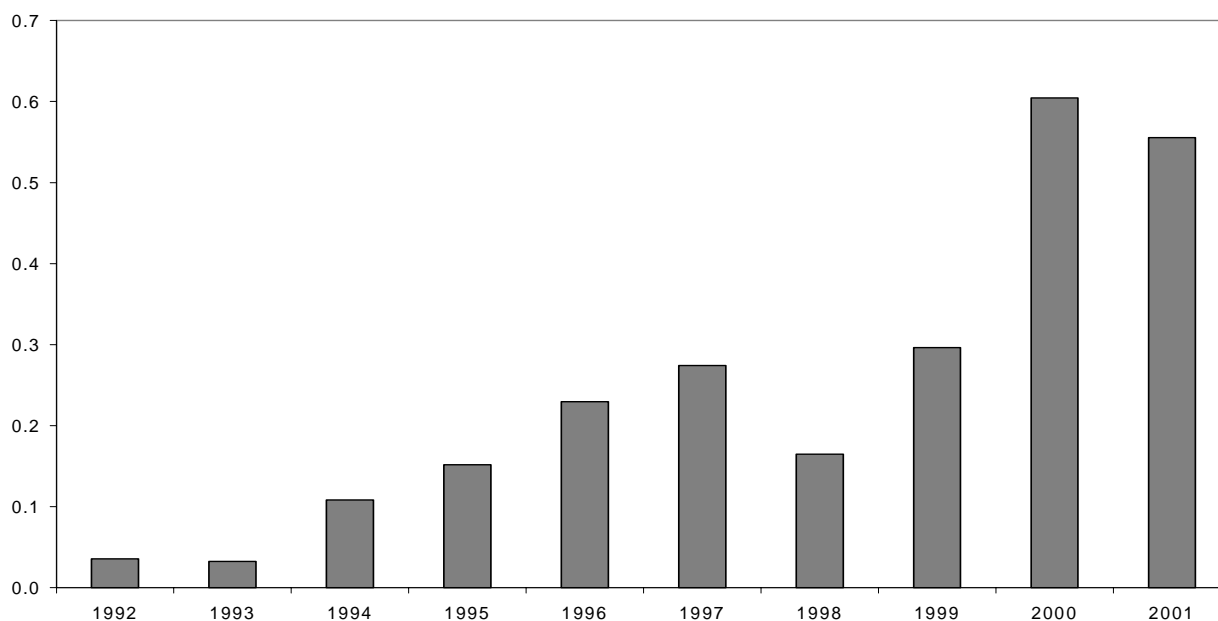
Figure 1. OECD venture capital investment by stages as a share of GDP, 1998-2001



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

Venture capital flows were gradually increasing in Korea until 1997, when they were slowed by the financial crisis but regained momentum in 1999 (**Figure 2**). Venture capital investment reached a peak of KRW 2 trillion (0.63% of GDP) in 2000, a four-fold increase from 1998. The number of companies that had received venture capital in these years was estimated at 3 000. In 2001, venture capital investment declined due to the global economic slowdown but less so than in other OECD countries.

Figure 2. Venture capital investment in Korea as a percentage of GDP, 1992-2001

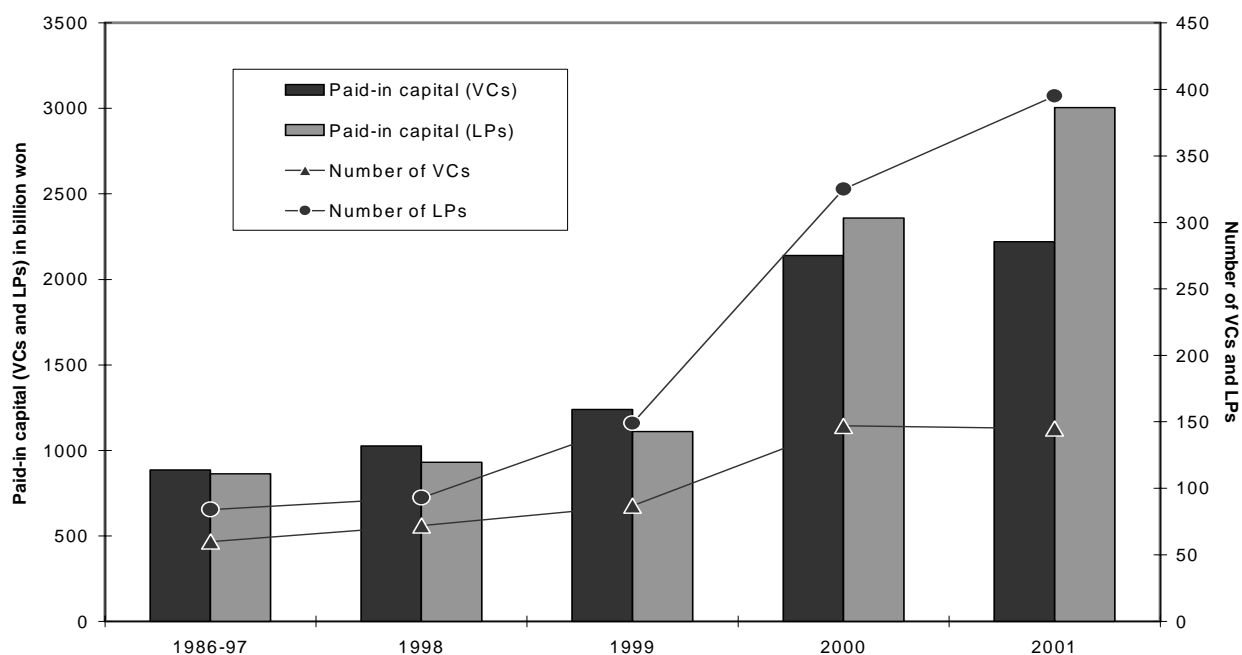


Source: OECD SNA database and venture capital database, 2002.

In order to understand these trends, it is important to note the structure of venture capital demand and supply in Korea. Most enterprises receiving venture capital are designated “venture businesses”, a legal category introduced by the 1997 Special Measures Law for Fostering Venture Businesses to facilitate the start-up of small, high-technology firms. An enterprise must meet one of three conditions to receive a certificate from the Small and Medium Business Administration (SMBA) -- equity investment exceeding 10% of capital for over six months, investment in research and development (R&D) exceeding 5% of revenue, and/or sale of products incorporating patent rights -- and be approved through an assessment by independent institutions.

Venture capital in Korea is invested through two channels established by the 1986 *SME Establishment Assistance Law*: *venture capital firms* (VCFs) or *limited partnership funds* (LPFs). A VCF must be registered with the SMBA as a corporation that provides capital primarily to start-ups. It is eligible for government assistance in the form of low-interest loans, equity funding and tax benefits, but must invest a certain share of its portfolio in small firms less than seven years old. In the 1990s, VCFs have evolved from primarily lending operations to mostly making direct equity investments in enterprises. The number of VCFs more than doubled from 72 in 1998 to 145 in 2001 with assets increasing from KRW 1 trillion in 1998 to KRW 2.2 trillion in 2001 (**Figure 3**). LPFs, which are pooled funds where each investor benefits in proportion to the amount invested, are generally established and managed by VCFs. By law, all LPFs must receive a certain share of financing from VCFs. In 1999, reforms reduced the minimum capital requirement for LPFs from KRW 5 billion to KRW 1 billion. The number of LPFs increased four-fold in 1998-2001, from 93 in 1998 to 395 in 2001, while the amount of capital raised more than tripled. As of 2001, VCFs and LPFs accounted for 69% and 31%, respectively of Korean venture capital investment.

Figure 3. Investment by VCFs and LPFs, 1986-2001

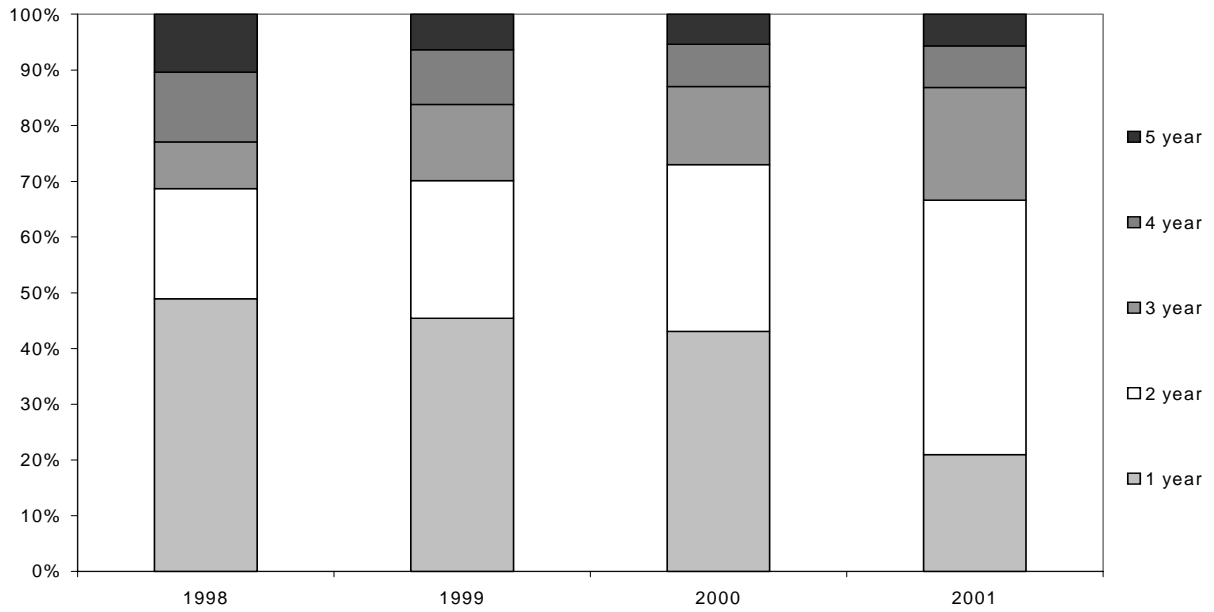


Source: SMBA, 2001.

Investment by stage and deal size

The growing supply of Korean venture capital is being channeled to earlier stages of investment in order to assist start-ups previously deprived of financing. Approximately two-thirds of total flows are invested in firms in the early or expansion stages, nearing the levels of the United States and Canada and far above the proportion going to early stages in the United Kingdom. In 2001, among Korean companies receiving new venture investments, more than 80% had been established in the previous three years or less (**Figure 4**). The share of older companies (in existence more than five years) in venture capital flows decreased in the same period. The average venture capital deal size in Korea is small and decreasing: nearly two-thirds of venture capital-backed companies received equity financing of less than KRW 1 billion in 1998-2001 (**Figure 5**). VCFs in Korea are attempting to diversify their portfolios by investing in a larger number and variety of enterprises, leading to an average investment per company of less than KRW 500 million in 2001.

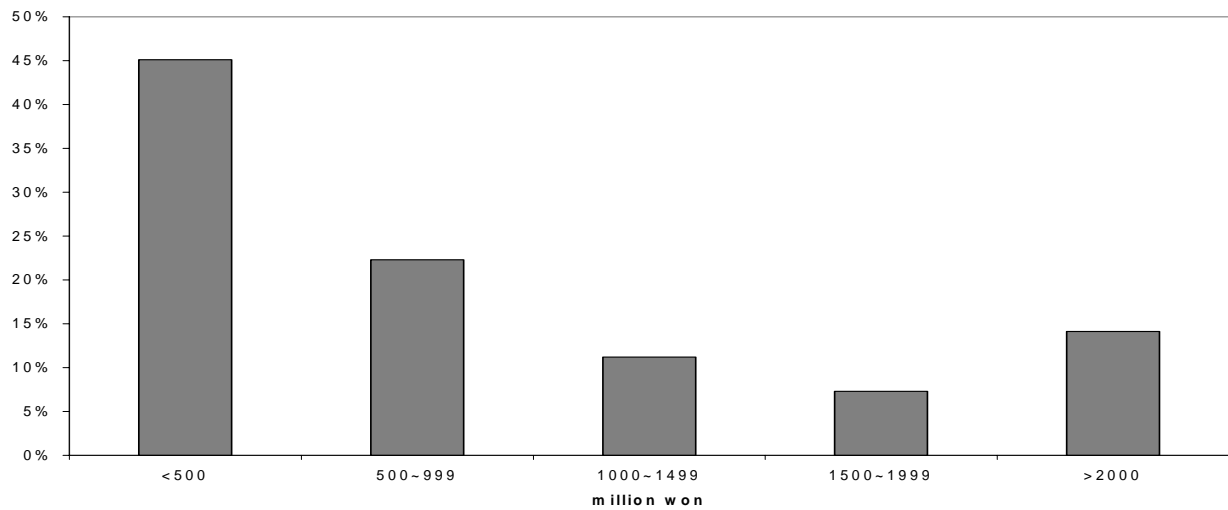
Figure 4. Korean venture capital-backed companies by age, 2001



Source: SMBA, 2001.

Figure 5. Korea venture capital-backed companies by deal size, 1998-2001

(share of total in per cent)

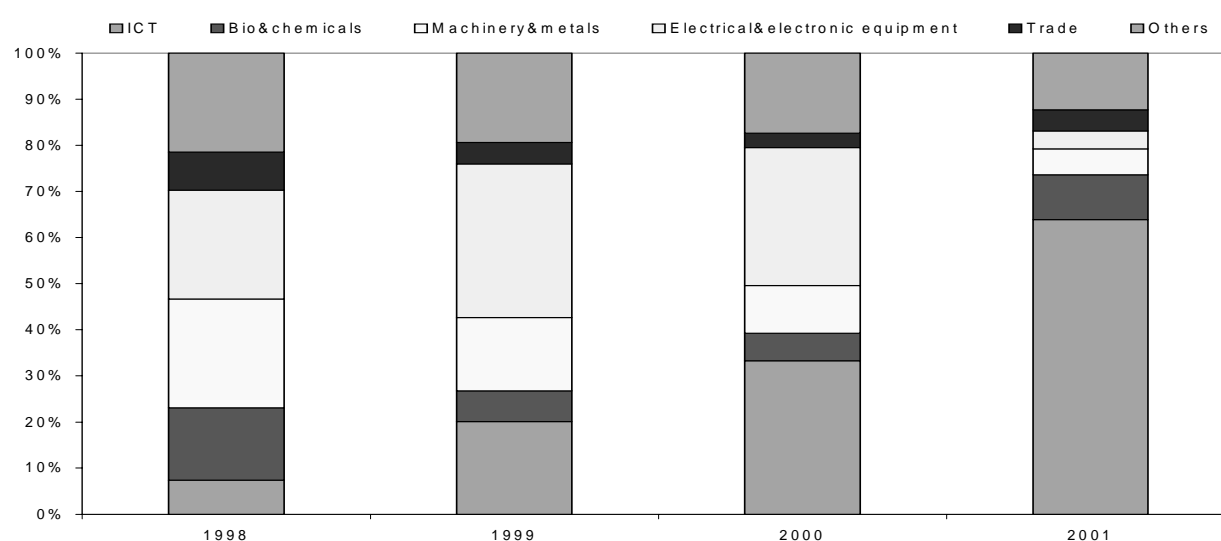


Source: SMBA, 2001.

Investment by sector

Korean venture capital policies have directed financing to high-technology industries. The rapidly expanding information and communications technology (ICT) sector (*i.e.* computer software, Internet, information systems) has absorbed most new equity capital in recent years. The ICT sector accounted for 64% of total venture capital investment in 2001, up from just 7% in 1998 (**Figure 6**). This amazing leap is being maintained despite the downturn in technology markets since 2000. Although sectors such as electrical and electronic equipment, machinery and metals, and chemicals attracted a large fraction of venture investment in 1998-2001, their share has been displaced by the ICT focus. However, investors are now showing some interest in alternative opportunities such as the biotechnology and entertainment sectors.

Figure 6. Korean venture capital investment by sector, 1998-2001

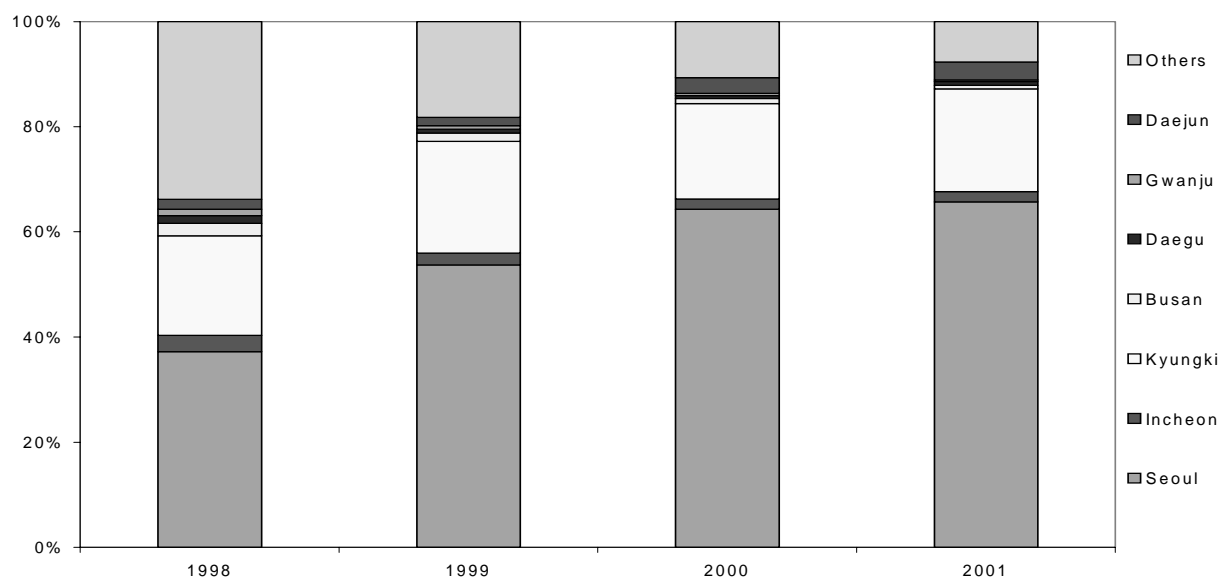


Source: SMBA, 2001.

Investment by region

As in other OECD countries, there is a severe degree of regional inequality in the Korean venture capital market. Venture capital investments are concentrated in the Metropolitan Seoul Area and its neighbouring regions (**Figure 7**). The regional inequality of venture capital investments has grown more pronounced in recent years. Seoul itself accounted for 37% of venture investments in 1998 which increased to 66% in 2001. Together with its neighbouring Incheon city and Kyungi province, the Seoul area accounted for 87% of investments in 2001, up from 59% in 1998. The unequal distribution of venture capital is a reflection of the geographic concentration of human capital, economic activity and financial resources in Korea..

Figure 7. Korean venture capital investment by region, 1998-2001



Source: SMBA, 2001.

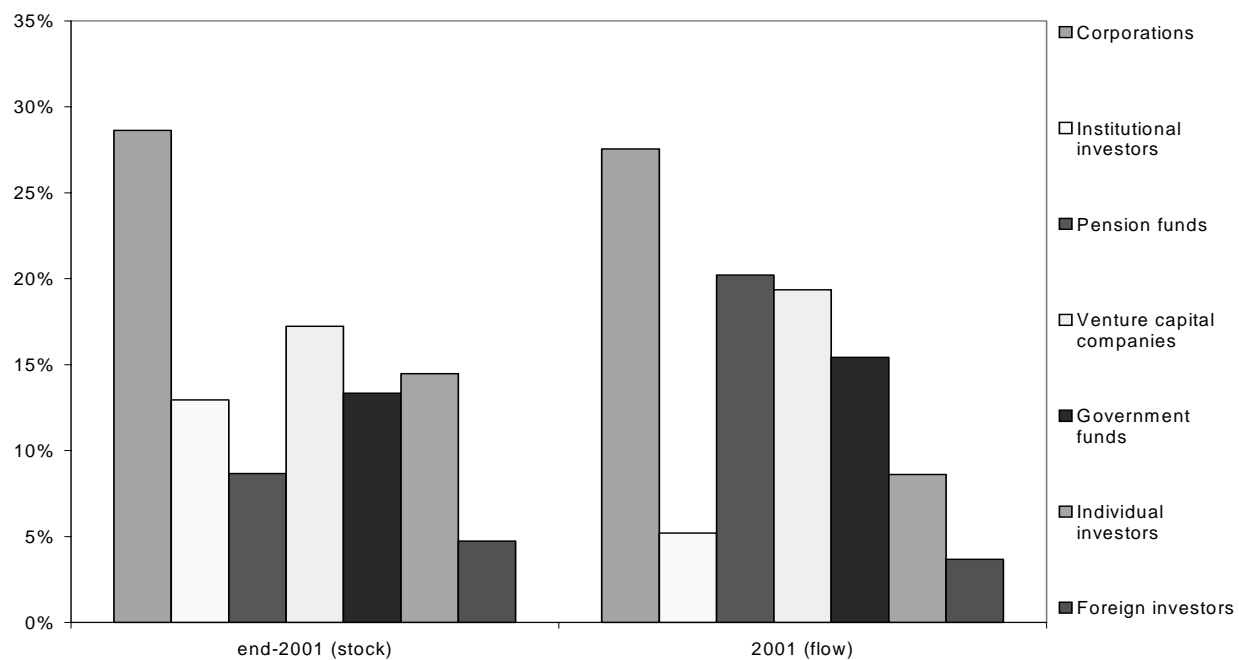
Funds raised by source

In Korea, the government and large corporations contribute most venture capital funding which is channeled primarily through VCFs and LPFs. Institutional investors, such as pension funds, and individuals (business angels) contribute a far smaller share of venture capital flows, particularly when compared to countries like the United States. However, the relative institutional and individual contributions are now increasing. The share of foreign investment in Korean venture capital markets is low (less than 3%).

The Korean government accounted for about half (52%) of total shares in VCFs in 2001, the *chaebol* provided another 40%, while financial institutions such as banks and securities firms supplied the remainder. The government -- through direct funding and indirect funding of VCFs -- was also the largest source of funds raised by LPFs, accounting for almost 35% (**Figure 8**). Due to the legal requirement for LPFs to receive at least 5% of financing from VCFs, the latter represented 17% of funding for the limited partnerships. Large corporations were also leading contributors to LPFs at 29% of inflows. The increasing role of pension funds in Korean venture investments is becoming more evident: they accounted for only 8.7% of funds previously raised by LPFs (as seen in stock figures) and over 20% of new funds raised in 2001 (as seen in flow figures).

Figure 8. Korean funds raised by source (LPFs), 2001

(share of total in per cent)



Source: SMBA, 2001.

VENTURE CAPITAL POLICIES AND PROGRAMMES

Overview

Since the financial crisis of 1997, the Korean government has focused on restructuring its economy -- long dominated by large corporations (the *chaebol*) -- along market-oriented lines. The *chaebol* relied heavily on debt finance to fund their investment programmes which resulted in exceptionally high debt-equity ratios throughout the Korean industrial sector. Smaller firms suffered from a credit crunch, due to a lack of assets to use as loan collateral, the undercapitalisation of banks and an almost complete absence of equity capital. These mismatches were intensified by the government's role as insurer or underwriter to banks and to large investment projects.

Post-crisis government programmes have aimed to increase the role of small firms (*i.e.* those with less than 300 employees) in the economy, particularly by enhancing financing to technology-based start-ups. A number of policies have attempted to increase bank lending to SMEs. On the equity side, the government provided direct infusions of capital through VCFs and LPFs and introduced generous equity guarantees for venture investors as well as preferential tax incentives. Attempts were made to encourage business angel activity, and the KOSDAQ stock market for start-ups (established in 1996) was reinforced.

However, the SME sector in Korea remains largely dependent on debt-financing mechanisms and on government assistance in general. The dynamism of venture capital markets is subdued by the extensive government role in all aspects of financing. Government support provided to smaller enterprises tends to protect them from normal business pressures, diminishing competitiveness and innovation. In general, the Korean venture capital market needs to be liberalised to allow the private sector a greater and more independent role in small firm financing.

Investment regulations

As part of the 1997 Special Measures Law for Fostering Venture Businesses, the Korean government enacted liberalised provisions for venture capital investments by institutions, including banks and pension funds. Under the special law, banks are allowed to freely invest in venture capital activities. In 2001, the government revised regulations for the National Pension Scheme to allow it to invest in LPFs. A continuing concern, however, is the extensive government role in the banking system, pension funds as well as the VCFs and LPFs. The partially funded National Pension Scheme, created in 1988, suffers from structural imbalances and should be accompanied by greater private sector savings to prepare for retirement. Although market forces are supposed to be playing the major role in resource allocation, the various players in the Korean venture capital system remain closely interlinked and publicly financed.

The Korean financial sector has been focused on returning to profitability and to healthy lending operations rather than on venture capital activities. Smaller enterprises were especially hard-hit by the 1998 recession, due to their close links to the *chaebol* and debt-to-equity ratios of over 300%. This led to a record number of small firm bankruptcies -- over 23 000 -- in 1998. The government encouraged banks to roll-over loans to nearly all small firms and asked the *chaebols* to lower their debt-to-equity ratios

to reduce systemic risk in the financial system, which acted to increase loan availability for SMEs. In addition, the central bank started basing credit ceilings for individual banks on their performance in lending to SMEs.

The Korean government still owns more than 60% of the capital in the banking sector. The government acquired equity stakes in a number of banks as a result of rescues of insolvent institutions during the financial crisis and the recapitalisation of weak ones. By 2001, the government had recapitalised financial institutions and banks through a KRW 150 trillion programme (25% of GDP). The government has now launched an effort to privatise the banks during the next three to four years, but there is concern about potential government intervention in banking operations, whether private or state-owned.

The view that banks should bear a large portion of the costs for restructuring small firms is inconsistent with attempts to create an independent financial sector. Bank lending has not been totally successful and may be sustaining enterprises that should have exited from the market. With a large number of companies that have recorded losses continuing to receive government-backed loans, there are signs that lending institutions are weak in analysing credit risks or are not concerned about such risks. Banks and government agencies may be similarly deficient in analysing likely prospects for venture capital investments and overseeing venture financing.

Moreover, foreign investment in Korean venture capital is very low. This is despite the fact that Korea has taken a number of steps since 1997 to liberalise conditions for foreign direct investment (FDI). The ceiling on foreign shareholding in individual companies was abolished by the Foreign Investment Promotion Act of 1998. The number of business lines where FDI is restricted was reduced from 27 in 1997 to 2 in 2001. The government also recently lifted restrictions on foreign investment in venture-backed companies. Foreign equity investors in LPFs will now be considered under regular foreign investment rules and will not be required to receive advance approval for their venture investments. However, more could be done to create a more hospitable climate for foreign investors in the venture capital market.

In general, Korea needs to deepen its domestic capital markets, allowing them to play a larger role in overall financing and reducing the reliance of the private sector on bank loans. To revitalise the private venture capital market, there is a need for further separation of government, finance and industry and a greater infusion of foreign funds.

Tax incentives

In the late 1990s, Korea introduced a number of tax incentives aimed at increasing investments in both VCFs and LPFs, including income tax reductions and exemptions from securities transaction taxes and capital gain taxes. Corporate and individual investors in VCFs and LPFs can deduct up to 15% of the amount invested from their consolidated income tax base, provided that shares are held for at least five years. In addition, dividend income received from VCFs and LPFs is not included in the consolidated income tax base, but is subject to separate withholding taxes. Capital gains taxes are not levied on gains which individuals realise from the disposal of VCF and LPF shares. Corporations and institutional investors are also entitled to exemptions from capital gains taxes on disposal of investments in LPFs

The VCFs and LPFs themselves are eligible for several preferential tax provisions. Dividend income received from start-ups or venture businesses is exempt from corporate income tax. VCFs can deduct up to 50% of investment losses from their corporate income tax base. Capital gains taxes are waived for the disposition of shares of venture businesses, while securities transaction taxes are not levied on disposal of shares in venture businesses when acquired for investment purposes.

With regard to start-ups and venture firms, income or corporate tax is reduced by half for newly-established SMEs during their first six years, beginning from the year they generate a tax-based profit. Local acquisition and registration taxes are not levied on assets acquired by venture businesses within the first two years. Property taxes are reduced by 50% for the first five years after establishment. The government also introduced a stock option plan to help start-up firms: gains on the exercise of stock options are not taxed on amounts up to KRW 30 million, provided that stock options are exercised three years after being granted. Although these tax schemes are relatively new, they seem to be playing a role in stimulating small firm creation and growth. Venture capital tax incentives should be extended beyond investors in VCFs and LPFs to increase investment by individuals (business angels) directly in small firms.

Equity programmes

The Korean government has relied primarily on the direct infusion of public funds to create a domestic venture capital market (**Box 1**). In 1999, the government aimed to support the growth of 10 000 start-ups through VCFs worth KRW 1 trillion, and government funding has continued since at similar levels. A main mechanism has also been direct investment in LPFs to attract more private capital in business ventures. Overall, it is estimated that the government contribution amounted to nearly 50% of VCF funding and 30%-40% of LPF funding in 1998-2001. This has allowed the Korean venture capital industry to weather the technology downturn which affected most other OECD countries in 2001.

Most government equity funding is administered through the Small and Medium Business Fund (SMBF) run by the SMBA. In 2001, Dasan Venture was created as a government-funded venture capital firm to make investments in small start-ups in conjunction with business incubators. Here, the government is attempting to combine public funds with badly-needed private management expertise. The SMBF also invests in a range of LPFs in an attempt to channel venture capital to particular sectors. For example, the Informationalisation Promotion Fund (IPF) requires that 40% of capital must be invested in ICT-related ventures less than three years old. Other LPFs target business areas such as the digital content and film sectors or aim to assist start-ups in outlying regions.

The Korean government also provides guarantees to reduce investment risks. The Technology Credit Guarantee Fund (TCGF) provides 70%-100% guarantees on investments in venture businesses as well as full guarantees on the primary bond obligations of certain ventures. The collateralised bond obligation (CBO) programme was created in August 2000 with the TGCF giving 100% guarantees on the bonds issued by venture businesses. This is associated with the CBO programme for larger enterprises, where the Korea Credit Guarantee Fund (KCGF) provides a partial guarantee for larger corporations which bundle mature bonds. With the collapse of bank lending in the wake of the financial crisis, many firms turned to the bond market for finance. The CBO programme has been viewed as a success in rolling over mature bonds and in assisting venture businesses and will be discontinued at end-2002. The government should also evaluate and consider amending the generous equity guarantees, which can distort investment flows towards excessively risky deals.

Box 1. Government venture capital funds in Korea

The **Small and Medium Business Fund (SMBF)** is intended to facilitate financing for SMEs, including venture capital investment for start-ups:

- *Dasan Venture*: In 2001, SMBF established a special venture capital firm with KRW 50 billion of paid-in capital. Dasan Venture identifies promising start-ups and provides them with seed money as well as management know-how in co-operation with business incubators across the country.
- *Limited partnership funds*: SMBF invests a share of its capital in LPFs in a range of sectors. During the period 1998-2001, SMBF invested KRW 400 billion in 200 LPFs, which had a total stock of KRW 1 000 billion for venture investments.

Special funds provide venture capital for start-ups in specific business sectors:

- *The Informationalisation Promotion Fund (IPF)* is a special fund establishing LPFs for investment in information and communications technology (ICT)-related start-ups. During 1998-2001, IPF invested KRW 126 billion in 22 LPFs, which invested KRW 370 billion into ICT ventures. LPFs specialising in ICT start-ups are required to invest at least 40% of their funds in early-stage firms aged less than three years.
- *The Cultural Industry Promotion Fund (CIPF)* invests in LPFs which provide venture capital primarily for start-ups in the digital content sector. In 2001, CIPF invested KRW 10 billion in LPFs for digital content to leverage KRW 20 billion in private funding.
- *The Film Promotion Fund (FPF)* invests in LPFs which provide venture capital for start-ups in the film sector. FPF invested KRW 10 billion against KRW 40 billion of private funding in LPFs for the film industry.
- *The Science and Technology Fund (STF)* invested KRW 15 billion in LPFs for technology-intensive start-ups together with KRW 25 billion of private funding in 2001.

The **Technology Credit Guarantee Fund (TCGF)** provides equity guarantees for venture investors:

- *Guarantee on venture investment scheme*: TCGF provides financial institutions and venture capital firms with a 70%-100% guarantee on equity investments up to KRW 3 billion in technology-intensive small firms. TCGF receives 2%-4% as the guarantee premium and also collects 20%-40% of capital gains in profits.
- *Guarantee on primary CBO scheme*: TCGF provides 100% guarantees on the primary collateralised bond obligation (CBOs) of venture businesses. A Special Purpose Company (SPC) acquires convertible bonds issued by venture businesses and then issues CBOs based on these convertible bonds, fully guaranteed by TCGF.

Business angel networks

The number of individual venture investors or “business angels” has dramatically increased in Korea from about 100 in 1997 to a few thousand in 2002. The number of informal business angel networks or clubs increased to 33 in 2001 up from just three in 1997. The number of business angel partnerships -- a legal instrument which requires minimum equity of KRW 500 000 and less than 49 partners -- also grew to 83 in 2001, up from 10 in 1999. As of 2001, business angels invested an estimated KRW 241 billion in venture businesses. This is a relatively lesser share than in other OECD countries such as the United States and the United Kingdom, partly because business angels invest primarily through VCFs or LPFs rather than directly in viable small firms. The government is now promoting the creation of an Angel Investment Mart, which is a matching system for VCFs, start-ups seeking finance, and business angels seeking investment opportunities. However, other reforms and initiatives are needed to promote angel investment --

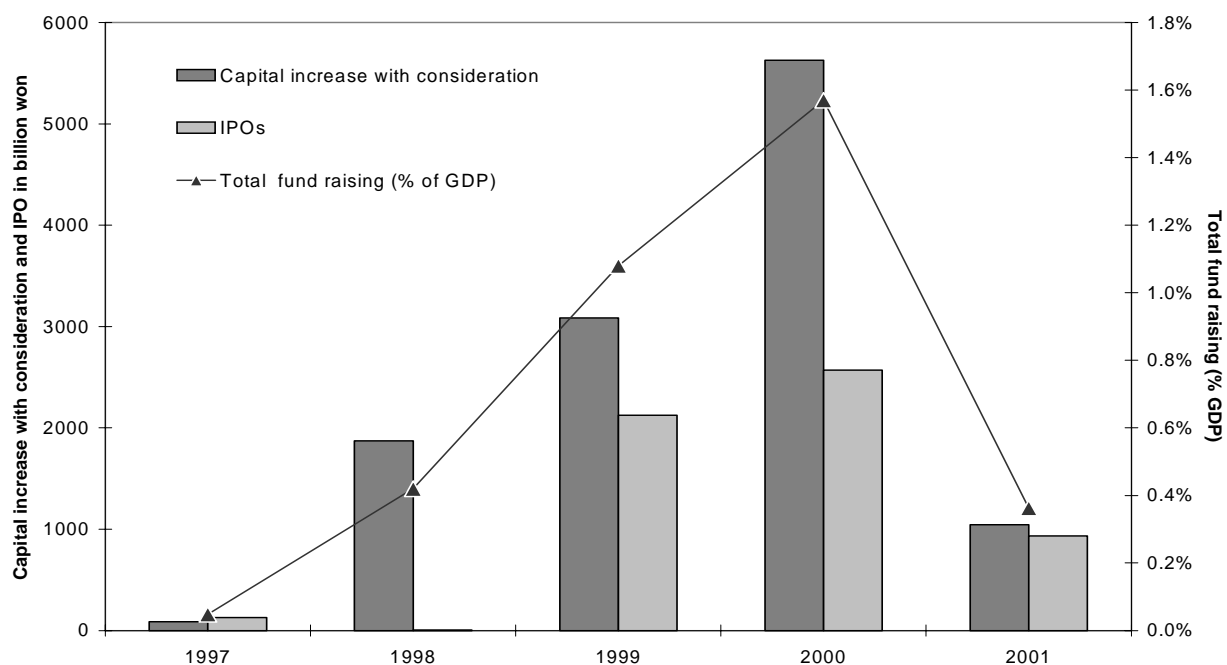
both domestic and foreign -- directly in small firms and to increase the number of “investment ready” start-ups.

Second-tier stock markets

In 1996, the Korean government established the Korea Securities Dealers Automated Quotation (KOSDAQ) stock market to promote access of high-technology start-ups to equity funding, naming it after the NASDAQ in the United States. Listing on the Korean Stock Exchange (KSE) was available only to well-established companies. The KOSDAQ has easier entry requirements and lighter continuing obligations compared with the KSE. In particular, a special market exclusively for venture businesses was established within the KOSDAQ. Standard requirements for paid-in capital, level of assets, business performance and debt-to-equity ratio are not applied to venture businesses. In 2002, the government revised the Special Measures Law for Fostering Venture Businesses to enhance exit procedures for venture-backed firms.

The KOSDAQ suffered a downturn in 1997 due to the financial crisis and subsequent recession. Due to growth in 1998-2000 linked to the worldwide technology boom, the number of listed companies on the KOSDAQ more than doubled from 359 to 721, of which nearly half were venture businesses accounting for more than 70% of daily trading (by market value). The number of listed companies in Korea is far less than on the NASDAQ but higher than in many European countries including the United Kingdom. However, the KOSDAQ price index and capital raised declined dramatically in 2001 along with other OECD technology-based markets (**Figure 9**).

Figure 9. Capital fund-raising on the KOSDAQ



Source: SMBA, 2001.

In 1998-2001, initial public offerings (IPOs) on the KOSDAQ totalled KRW 6 trillion, and additional equity offerings amounted to KRW 11.6 trillion, together equivalent to 36% of the net increase in bank loans to small firms. In 2000 and 2001, newly listed venture firms which received investment from the VCFs and LPFs accounted for 37% and 17% of the total, respectively. However, the recent decline in the KOSDAQ suggests that it may not be able to sustain its role in the long-term despite reducing dependence on VCFs and LPFs. The KOSDAQ needs to be strengthened as an exit vehicle for small firms, and more participation by foreign investors should be promoted.

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