Evaluation of the Venture Investment Fund

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Manatū Ōhanga

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Executive Summary

What is venture capital?

Venture capital is the term given to the provision of capital and management support to private, young, innovative and often high-tech businesses with high-growth potential. Venture capital investments are undertaken to build the value of a company and normally involve a medium to long-term holding period with a clear view to exit in the form of a trade sale or share float. The ongoing viability of a venture capital firm depends on it making good returns to cover for the high risks involved. In creating value, venture capitalists actively work with the management teams of their portfolio companies.

Venture capitalists typically invest in companies at the seed (concept), start-up (within three years of a company's establishment) and early stages of development. Such companies often have little or no track record and are cash hungry. In contrast, other types of private equity investors target more mature businesses with the aim of eliminating inefficiencies and driving growth.

The academic literature on venture capital suggests that a successful and sustainable industry depends upon a steady supply of risk capital, a steady flow of quality deals, experienced and skilled venture capitalists who can pick the businesses worth investing in and add value, acceptable risk-adjusted returns to investors, and the ability to protect intellectual property

What are NZVIF Ltd's objectives for the VIF?

The <u>overall</u> objective of the Venture Investment Fund (VIF) is to accelerate the development of the venture capital market in New Zealand to the point where there is a self-sustaining local venture capital market no longer requiring government support. Development of the venture capital market is expected to be evident in achieving the following objectives, or outcomes:

- increased level of early-stage (i.e. seed, start-up and early expansion) investment activity in the New Zealand market;
- a larger pool of people in New Zealand's venture capital market with skills and expertise in early-stage investment;
- increased commercialisation of innovations from the Crown Research Institutes (CRIs), Universities and the private sector; and
- more New Zealand businesses on paths to global success by increasing their access to international experts, networks and market knowledge.

Scope of the evaluation; findings

In this evaluation of the VIF the Ministry of Economic Development (MED)[1] seeks to determine the progress of New Zealand's venture capital market towards sustainability and what has been the role of New Zealand Investment Fund Limited (NZVIF Ltd) in catalysing

[1] The evaluation has been undertaken by MED's Economic Strategy Branch evaluation team and Industry and Regional Development Branch policy team.

market development. This involves a review of programme outcomes and a review of the outputs of NZVIF Ltd in implementing and managing the VIF from a quality, quantity and process perspective.

MED set out to answer the following key questions:

1. **What are the critical constraints on the development of New Zealand's venture capital market? Are the current market conditions created by global financial difficulties causing additional problems?**

   Findings:

   - This part of the financial system is affected adversely by general problems related to low levels of national saving and dependence on foreign capital. Deal flow for potential investors is likely to be sub-optimal due to relatively low levels of business research and development and innovation.

   - There is concern that with activity having slowed, the venture capital industry will find it difficult to regain its previous momentum. The global financial crisis has largely exacerbated pre-existing difficulties (most or all of which are experienced in other jurisdictions attempting to develop a sustainable venture capital market).

   - By international standards, New Zealand's venture capital industry is still immature. New Zealand venture capital funds are yet to demonstrate a track record and adequate returns on investment. There have been few divestments. The life of these funds is typically ten years so the track record of the first VIF funds will not be known until 2012/13 at the earliest.

   - Securing and maintaining a flow of investment from domestic and international institutional investors is seen to be essential to the sustainability of the venture capital industry. Such funding would dramatically increase the overall pool of venture capital, thus allowing more funds to enter the market and increase the overall size of individual funds. (Some see the average size of VIF-supported funds to be too small to achieve economies of scale, provide sufficient follow-on funding and adequately pool risks. The required size will be greater in funds specialising in sectors where larger investments over longer periods are needed.) To date, uncertainty about the future performance of the VIF venture capital funds and a lack of track record are the main reasons for a lack of institutional support.

   - As at 30 June 2009 $106 million of public and private capital 'remained to be invested' by the six VIF venture capital funds. By the end of 2010 only one of these funds will still be in its initial investment period where it can make new investments, with the other five concentrating on their existing portfolio and seeking follow-on investment. NZVIF Ltd has made conditional commitments to three new funds that are in the process of raising matching private sector capital and expects these funds to begin operating in the 2009/10 year. NZVIF Ltd now has no capital left to commit to new funds.

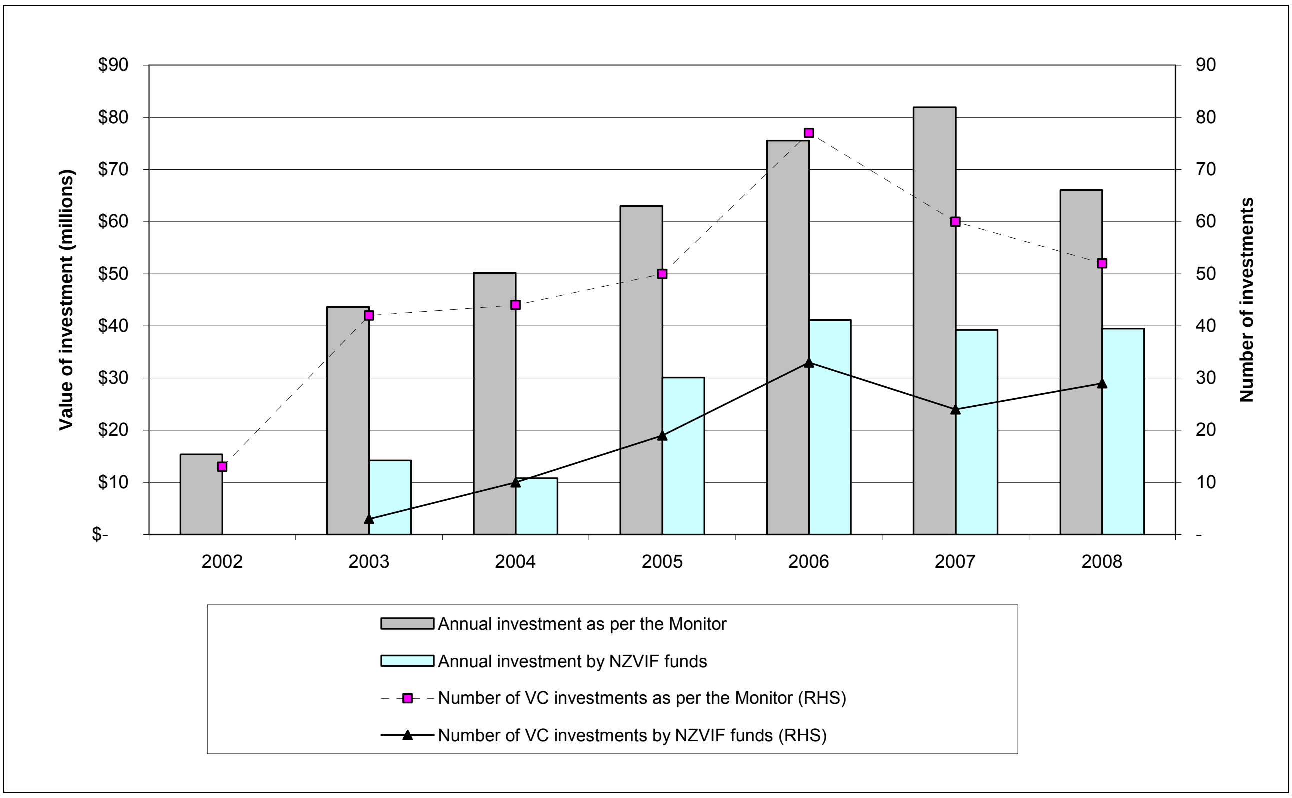
2. What outcomes have emerged so far? What is happening in New Zealand's venture capital market and what is the observable impact of the VIF on the market to date?

Findings:

- The VIF has had a significant impact on the level of venture capital activity in the market through its investment and associated activities. However, little can be said of the quality of the activity that VIF has supported at this stage. Investment through the associated six private sector venture capital funds represents a sizeable proportion of venture capital investments – both in terms of number of companies invested in and the value of those investments. As at June 2009 $220 million from the VIF venture capital funds had been invested across 48 companies.

In the graph below wider industry data from the New Zealand Private Equity and Venture Capital Monitor is presented alongside data on investments made by the venture capital funds in which NZVIF Ltd has invested. While the datasets differ investments of VIF-supported funds appear to have represented a significant share of total venture capital investments.

Venture capital activity in New Zealand



Source: The New Zealand Private Equity and Venture Capital Monitor, March financial years, NZVIF Ltd, June years.

Profile of investment by VIF supported funds

	2003	2004	2005	2006	2007	2008	2009
Cumulative number of companies invested in.	3	11	23	35	37	45	48
Cumulative investment amounts (NZVIF and private sector venture capital funds, $ millions)	14	24	54	95	133	173	220

Source: NZVIF Ltd
Figures are June year basis and rounded

Annual VIF Fund investments[2] ($ millions)

Private sector capital fund		2003	2004	2005	2006	2007	2008	2009	Total
TMT Ventures	NZVIF Investment	2.5	1.0	3.6	4.8	3.0	3.0	0.2	**18.1**
Endeavour i-Cap	NZVIF Investment	0.2	1.0	2.3	4.1	1.9	1.6	0.9	**12.0**
iGlobe Treasury	NZVIF Investment		0.5	1.2	2.7	2.1	1.1	1.9	**9.5**
No. 8 Ventures	NZVIF Investment	0.3	0.9	2.9	1.7	3.1	1.7	0.9	**11.5**
Bio Pacific Ventures	NZVIF Investment			0.1	0.5	2.2	2.7	2.1	**7.6**
Pioneer Capital Partners	NZVIF Investment					0.3	3.4	5.1	**8.8**
IO Fund	NZVIF Investment	1.7[3]							
Annex Fund	NZVIF Investment							5.0	**5.0**
Total NZVIF investment		**4.7**	**3.4**	**10.1**	**13.7**	**12.7**	**13.5**	**16.0**	**74.2**
Total private sector investment		**9.5**	**6.9**	**20.1**	**27.5**	**25.4**	**26.3**	**31.0**	**146.6**

Source: NZVIF Ltd (NZVIF investment) and MED calculations (private sector investment)
Figures are June year basis, totals may not add due to rounding

- The quality and effectiveness of fund managers that have received investment from NZVIF Ltd can only be judged once the returns on the current funds have been demonstrated and new funds raised. (Comparing interim performance of the funds in aggregate against benchmark returns for funds of the same vintage indicates that their performance is similar to the median performance**.)** In the interim from the fact that the fund mangers have gone through due diligence and raised capital in the market, one could infer that the current fund managers have good skills and experience. Through the establishment of new venture capital funds VIF has increased the number of skilled practitioners working in the venture capital industry, although with the absence of any new funds entering the market over the last three years the number has stayed constant. Most industry stakeholders thought that the VIF had encouraged learning and helped develop processes. This view is supported by evidence from MED's survey of VIF portfolio companies. MED is not able to say what impact the VIF has had on the number of skilled venture capital practitioners not associated with NZVIF Ltd supported funds.

- Venture capital activity supported by VIF is an important component of the New Zealand innovation system. Up to 31 December 2008 deal flow from Crown Research Institutes (CRIs) and universities was low, yet it represented almost a

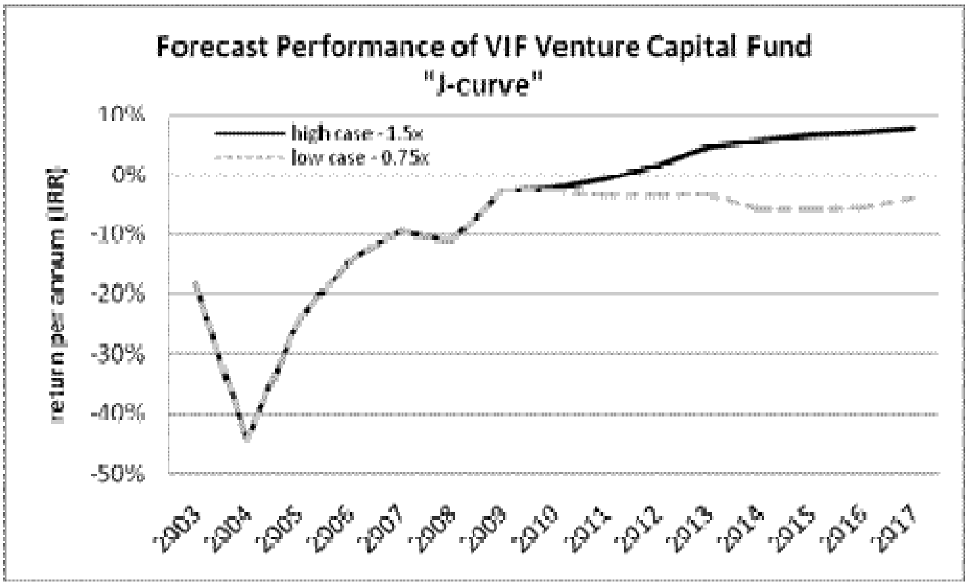
[2] These figures include management fees paid to fund managers.

[3] These monies have been returned to NZVIF Ltd.

quarter of all investments. The underlying reasons for the lack of commercialisation of research from CRIs and universities are likely to be unrelated to the operations of VIF. Rather, there are much wider issues regarding the direction and degree of commercial orientation of publically-funded research and government's expectation for the organisations involved.

- Companies invested in by VIF venture capital funds who responded to MED's survey of VIF investee companies reported that they have been generally successful in their ability to raise capital, 88 percent of these companies expect to raise further capital within the next two years, and 69 percent are exporting.

- As yet, there has been little in the way of either divestment activity or return of capital by the VIF venture capital funds. Therefore it is too early to say what the final performance of the VIF-supported funds will be. The 'buy-out' option – which is the mechanism through which investors can buy the government's stake at relatively low cost and obtain a larger share of the fund's final value – has not been exercised. This has been interpreted by many in the market as a signal that the investors in existing funds were not confident in the overall returns from their portfolios. NZVIF Ltd has provided a forecast of the overall performance of their investments in the six funds:



Source: NZVIF Ltd

- While it is difficult to know how wide the margins of uncertainty around this forecast might be, it is concerning that over the period when the early funds will be 'cashed-out', and until 2017, the range of internal rate of return (IRR) centres around 0 percent. (This is the average return across NZVIF Ltd's portfolio. Underlying this will be a variable performance of the individual VIF venture capital funds, i.e. some will do better and some not as well). However, the current IRR of -3.1% is similar to the median return reported by Preqin[4] for funds that are of the same age.

[4] Preqin Private Equity Benchmarks: Venture Benchmark Report.

3. **Is VIF effective and can value for money be reasonably expected from further capital injections?**

Findings:

- MED’s analysis indicates that programme delivery cost has been approximately $10.3 million over the last eight years (2001 – 2009) to deliver the VIF. In turn, NZVIF Ltd has made actual capital commitments of $109 million and conditional capital commitments of $51 million. In MED’s view, there is an opportunity for government to work with NZVIF Ltd in identifying how to further reduce costs.

- Besides managing the equity portion of the VIF, NZVIF Ltd has a wider role to help develop the industry. NZVIF Ltd has contributed to the development of the venture capital industry through their support of, and work through, the New Zealand Venture Capital Association (NZVCA) as well as through contributing standardised documentation for some market transactions and agreements. Representation of industry perspectives has contributed to decisions leading to important changes in tax arrangements for inbound and outbound investment, and the creation of limited liability partnerships.

- NZVIF Ltd has also previously planned or embarked upon a number of in-market initiatives that appear not to have been essential to the core policy objectives of the programme. These raised questions both within government and the wider industry as to what the scope of their activities should be. The original policy had envisaged VIF as a passive investor with venture capital managers, being essentially one step removed from the market itself.

- The analysis in the report shows that NZVIF Ltd’s core early stage investment work has produced clearly defined benefits consistent with policy. Given the importance of this work and the clear policy rationale that exists, non-core areas of activity, such as the provision of services currently available in the market and the development of investment products across the later-stage end of the private equity market, should be excluded from the scope of business.

- The rationale for the VIF is strongest at the early-stage where the risk/reward profile on company investments is the steepest. Early-stage companies are more likely to have spillovers from research and development and investors are more likely to experience information asymmetries and have higher transaction costs when investing in these companies. These things make it more difficult for venture capitalists (along with other finance providers) to assess the risks involved in investing in early-stage firms. It is MED’s view that future use of VIF capital be re-oriented towards early-stage activity (in particular seed and start-up investments).

- It is important that MED and NZVIF Ltd jointly identify and resolve problems that arise in the course of business and adopt a no surprises approach to information sharing.

4. **How has NZVIF Ltd implemented VIF? Has implementation of the VIF led to unintended outcomes? Have changes in the rules of the Fund been appropriate?**

    - Since 2008 NZVIF Ltd have placed greater emphasis on the in-house part of the process of due diligence of fund managers. The capability to manage a stringent process of due diligence which is endorsed by the NZVIF Ltd Board and selects fund managers is central to NZVIF Ltd’s role, but it has previously relied on independent advice from internationally recognised experts in fund manager due diligence. The involvement of an external provider has delivered particular accreditation benefits and allowed connections to international networks. The quality of due diligence on prospective fund managers is critical to the programme's success and NZVIF Ltd rightly view the overseeing of this work as one of their key functions. A publically acknowledged role for external advisers will contribute to the due diligence process continuing to be rigorous, objective and to an internationally recognised standard. The latter is particularly relevant with regard to the VIF policy objectives, most notably:

i. To attract new flows of private investment into the venture capital market – venture capital fund managers noted the substantial value they extracted from successfully undergoing external due diligence by an internationally recognised organisation. This assisted them in raising private capital both locally and off-shore.

ii. To crowd in the private sector and build capability in the market – NZVIF Ltd undertaking the due diligence of prospective fund managers and building up internal capability may constrain market development in the provision of due diligence by the private sector. It is difficult to see how a private sector provider would be able to compete, particularly when they would need to charge market rates but NZVIF Ltd have their costs underwritten by the Crown.

- It was originally intended that private sector fund managers would not approach NZVIF Ltd for investment unless they had first demonstrated that they could raise a significant portion of the required private sector investment. This provides an indication and market validation of the reputation and quality of fund managers. With the limited funds available in the VIF it is important that a demonstration of market-backing be re-instated and further practical steps could be identified by NZVIF Ltd as to how to go about this. This also recognises the well-publicised success of venture capital fund managers in capital raising and better prospects when capital markets become more buoyant.

- The current process whereby fund managers do not apply through a formal application round process may need re-consideration. Given the current situation of financial constraints, the simultaneous comparison of prospective fund managers through a formal application round process would both allow those fund managers most likely to meet the objectives of the programme to obtain scarce Crown capital and demonstrate that the investment is optimal from a national perspective

- NZVIF Ltd's negotiation process with fund managers has been thorough. Investor documentation is also lengthy but comprehensive. Private venture capital fund managers view NZVIF Ltd as being responsive, open and constructive.

- Overall, the consensus from fund managers is that NZVIF Ltd has played an active and constructive role in the on-going monitoring of investments.

- Implementation of the operational rules has, on the whole, been in line with Cabinet requirements.

- Consistent with the changes in the operational rules of VIF some investments have been in firms whose age and levels of trading income indicate a relatively well-established business with a clear market offering. However, these characteristics may have indicated a lesser need for government support, and/or that sources of finance other than the VIF would have been more appropriate and facilitated market development. MED therefore recommends a return to investing in early-stage companies in particular seed and start-up companies.

- Over time there has been increasing attention given to follow-on funding, both in the context of the rules of the VIF (i.e. the Annex Fund) and the pattern of operations of private sector venture capital funds. While MED recognises the need for fund managers to retain the ability to invest funds into a portfolio company along its growth path, the development of the Annex Fund represented an additional source of follow-on investment that has reduced public capital available to support new funds. In principle the government contribution should be invested at a ratio commensurate with the growth stage of the company at the time the investment is made. It is our understanding from NZVIF Ltd that this has, in fact, largely occurred.

- The VIF venture capital fund managers have been able to increase the overall size of their funds by increasing the level of private investment and obtaining matching Crown capital. As long as committed capital from the VIF to each fund is no more than $25 million, NZVIF Ltd has matched these commitments. From a policy perspective, MED considers it important that once a fund has fully closed, that VIF's capital commitments remain as agreed at that time. This ensures that Crown capital goes to the point of greatest need.

- The buyout option seems to have been important in attracting private matching capital, particularly in the first investment rounds, but has only been exercised by one fund manager for the purpose of terminating the fund. Either the buyout option has not altered the risk/reward of investments, fund managers have been unable to replace VIF capital with capital from the private sector or fund managers do not anticipate even a 'safe' rate of return on their funds.

- There is little evidence to suggest that the expanding of the investment ratios into later stage investment have had a significant effect in generating the establishment of new funds. International experience indicates that this can add unnecessary complexity. Only one new fund has been established in the three years since the policy change. When VIF was established there was no market failure identified which would require this additional support. Private sector venture capital funds are able to ring-fence a non-NZVIF Ltd supported proportion for investment into these later stages if desired.

- MED's analysis of government involvement in venture capital around the world indicates that the main rationale for intervention is in early stage. This is supported by the majority of the associated academic research and literature. Industry stakeholders also draw a fairly strong distinction between early and late-stage investment as they involve different risk profiles and skill sets. Experience in other jurisdictions suggests that, over time and if permitted, government interventions in venture capital will drift to predominantly investing in later stage. This is because the investment decision is easier and less risky due to there being more information available (e.g. evidence of market, of product applicability, sales, revenue forecasts) on which to evaluate the proposition.

5. What changes, if any, could be made to the VIF to improve its effectiveness?

Recommendations

The evaluation confirms that the model in which VIF is a passive co-investor with private sector venture capital managers will be most effective in helping develop venture capital in New Zealand. To this end, MED are not recommending any substantive changes to this model. Rather, MED recommends policy be re-focused to where the rationale for government intervention is the strongest, and that the activities of NZVIF Ltd do not distort market development and crowd out the private sector.

Policy Objectives

MED recommends that the overarching policy objective of catalysing the sector be re-confirmed, with milestones established for further evaluation in 2014 and with an objective of eventual exit after a further 10 years. The establishment of such milestones will support market confidence/clarity in NZVIF Ltd's role, this being vital to its investment relationships.

Programme funding and investment

The projected capital flows into and out of funds could see a period where NZVIF Ltd would not be able to invest into any new funds until it receives a return from its existing investments. On the basis of the recommended changes in scope and direction as set out below, MED recommends that the agreement of the Minister for Economic Development be sought to allow further lending by the VIF by:

i. inviting NZVIF Ltd in consultation with MED to submit a business case for a further application round in 2010/11;

ii. inviting NZVIF Ltd to advise government on the basis of cost/benefit analysis of its Annex Fund to advise what uncommitted resources could be available for new venture capital; and

iii. subject to a satisfactory business case, committing up to $40m additional capital and/or allowing further commitments from the existing capital base to the round in 2010/11, including reprioritising funding, where feasible from later-stage investment.

To facilitate market development and grow the market base MED proposes that at least two funds supported by VIF in the future should be 'new' funds, i.e. not associated with current fund managers. Ultimately a vibrant venture capital market will have breadth as well as depth. To this end we need to work to grow a larger number of active venture capitalists in the New Zealand market.

The role of NZVIF Ltd

i. MED recommends that the agreement of the Minister for Economic Development be sought to clarify the scope of NZVIF Ltd outputs and exclude activities that do not relate to the core functions of the VIF. The government's venture capital intervention is likely to be most effective if it is tightly focused and avoids any perception that NZVIF Ltd are engaged, or planning to engage, in market activities which are not of an 'arms-length' nature.

ii. Further, MED recommends that the agreement of the Minister for Economic Development be sought to direct officials and NZVIF Ltd to assess the resources required to deliver such outputs compared to existing budgets.

Recommendations to emphasise the 'arms-length' basis of the programme in line with policy expectations

After seven years of operation, and when some tough re-financing decisions may be required, it is timely for the government to review what it expects from NZVIF Ltd's operation. Based on evaluation findings of developments to date MED recommends that the agreement of the Minister for Economic Development be sought to re-emphasise NZVIF Ltd's objective to remain at an arms length position from the market as a Crown entity co-investing in early-stage venture capital. In seeking changes to the VIF on an operational level MED recommends that the Minister for Economic Development invite NZVIF Ltd to work with officials to:

i. further support its key decisions on VIF investment partners by working with independent internationally recognised consultancy experts to undertake the due diligence. Such expertise should assist fund managers in raising capital, both onshore and offshore, and will also help attract private sector skills in venture capital due diligence;

ii. provided there is sufficient capital available, use regular funding application rounds but maintain discretion to operate outside of rounds if substantial new opportunities emerge;

iii. Implement a requirement that prospective fund managers demonstrate market backing through either:

- the ability to show evidence of significant private investment support at the time of approaching NZVIF Ltd for investment; or by

- limiting the time period for fund raising once VIF capital has been committed: once NZVIF Ltd have conditionally committed capital to a fund, the fund manager actively raises capital in the market. However, it appears that currently there is no time limit on such capital raising. So as not to tie up the now limited funds in the VIF that could be committed elsewhere, MED recommends that NZVIF Ltd limit the time that fund managers have to raise funds in the market.

In making the above changes NZVIF Ltd is invited to engage with MED. MED recommends that the agreement of the Minister for Economic Development be sought to reference the agreed changes in a shareholding ministers' letter of expectation to the NZVIF Ltd Board.

Monitoring arrangements of NZVIF Ltd

MED recommends that the agreement of the Minister of Economic Development be sought for the Crown Ownership Monitoring Unit of the Treasury and MED to discuss the most appropriate monitoring arrangements for this Crown company, and make proposals to shareholding Ministers for any changes by end-February 2010.

Operating principles

i. The Cabinet requirement that NZVIF Ltd provide written advance notification to shareholder ministers when the initial capital shareholding limit in any one portfolio company is likely to exceed 15 percent is unnecessary and adds to administrative burden. Private sector fund managers are responsible for managing the portfolio of investments of a fund. MED recommends that the agreement of the Minister for Economic Development be sought to seek Cabinet agreement to dispense with this requirement.

ii. The variable investment ratios have added complexity to the VIF both for contract negotiation and for monitoring. The application of the investment stage rules may also risk diverting priorities from early-stage to later-stage companies. Given the limited capital available and the rationale for intervention assistance, MED recommends that the VIF be re-focused back on early-stage companies. MED recommends that the agreement of the Minister for Economic Development be sought to seek a mandate from Cabinet to confirm NZVIF Ltd focus be on investment into early-stage companies as per the November 2001 Cabinet paper. (In that paper 'early-stage' investment included seed, start-up and early-expansion investments. However, investments in early-expansion deals were only to occur to ensure the viability of the VIF and seed and start-up investments were to remain the main focus of VIF).

iii. MED recommends that changes in the form of the option to buyout NZVIF Ltd's investment, and other means of improving the risk/reward balance for investors be considered by officials (working in conjunction with NZVIF Ltd), and advice submitted to Ministers on possible changes by end March 2010.

iv. MED recommends that the restriction on the maximum level of NZVIF Ltd investment in a single fund be reassessed to allow larger funds to be supported. Officials (working in conjunction with NZVIF Ltd) should submit advice to Ministers on possible changes by the end March 2010.

v. To encourage both new funds to establish and the transfer of skills, MED recommends that the agreement of the Minister for Economic Development be sought to direct NZVIF Ltd to commit capital to private sector venture capital funds up until the final close of a fund after which no new VIF capital commitments could be made.

1. Introduction

The purpose of this report is to present the findings and recommendations from the evaluation of the Venture Investment Fund (VIF).

The VIF was established by Cabinet in February 2001 to accelerate the development of the venture capital market in New Zealand to the point where there is a self-sustaining market no longer requiring government support. The VIF[5] encompasses both market development initiatives and a $160 million equity investment fund which invests alongside selected private sector investors in a series of privately managed venture capital funds. New Zealand Venture Investment Fund Limited (NZVIF Ltd), a Crown owned entity, is responsible for managing the VIF in accordance with policy.

This report is presented in two parts. In Part One the VIF and venture capital in New Zealand are discussed. In Part Two evaluation findings and conclusions are reported.

1.1 Context

The evaluation of the VIF is a Cabinet requirement.

1.2 Scope of the evaluation

In the evaluation of the VIF the Ministry of Economic Development (MED) seeks to determine the progress of New Zealand's venture capital market towards sustainability and what has been the role of NZVIF Ltd in catalysing market development. The former encompasses an assessment of whether programme outcomes have been achieved. The latter encompasses a review of outputs of NZVIF Ltd in implementing and managing the VIF from a quality, quantity and process perspective.[6]

With the above aims in mind MED set out to answer the following questions:

1. What are the critical constraints to the development of New Zealand's venture capital market? Are current market conditions and the global financial crisis causing additional problems?

2. What outcomes are expected from the VIF and what outcomes have emerged so far? That is, what is happening in New Zealand's venture capital market and what is the observable impact of the VIF on the market to date?

[5] The Venture Investment Fund, and its parts, have also been called the Crown Seed Capital Fund, the New Zealand Venture Investment Fund, the Venture Capital Programme, the Venture Capital Fund and the Venture Capital Fund of Funds. Throughout this report the title Venture Investment Fund is used as it is the legal entity referred to in the relevant Output Agreements with the Minister.

[6] The scope of the evaluation draws upon recommendations in Lerner et al (2005). In that report it was suggested that, as the sustainability of New Zealand's venture capital market is the primary policy objective, this topic should be the key question for the evaluation. NZVIF Ltd could perform on all points of the compass but a self-sustaining venture capital market may not be achieved for other reasons, for example due to the small size of New Zealand's economy.

3. Is the VIF effective and can value for money be reasonably expected from further capital injections?

4. How has NZVIF Ltd implemented the VIF? Has implementation of the VIF led to unintended outcomes?

5. Have the operating principles of the VIF been adhered to? Have changes in the rules of the Fund been appropriate?

6. Are the policy and monitoring processes (both between MED/NZVIF Ltd and NZVIF Ltd and VIF venture capital fund managers) fit-for-purpose?

7. What changes, if any, could be made to the VIF to improve its effectiveness?

The terms of reference for the evaluation were determined in conjunction with NZVIF Ltd. NZVIF Ltd also manages the Seed Co-Investment Fund (SCIF), a government intervention in the angel investment market. Apart from considering the influence of angel investment on venture capital activity, the SCIF is outside the scope of this evaluation.

It is likely that some issues may be identified in the evaluation that could be explored at a later date.

1.3 Method

The work for this evaluation included:

- a file review of policy documents and NZVIF Ltd records and reports;
- an international literature review of venture capital and its development;
- an on-line survey questionnaire of companies that had received VIF investment capital via the VIF venture capital fund managers;
- briefings from and discussions with the programme manager for the VIF and the Chief Executive of NZVIF Ltd;
- interviews with the managers of the VIF venture capital funds that have received VIF capital;
- interviews with other stakeholders in the New Zealand venture capital industry, including key personnel in other venture capital firms, private equity (PE) firms, commercialisation offices of universities, Crown Research Institutes (CRIs), the New Zealand Venture Investment Association (NZVCA), government agencies, the Board of NZVIF Ltd, as well as a due diligence specialist, angel investors, investment advisors, and institutional investors.
- existing data on venture capital activity, both within New Zealand and overseas; and
- information on other, relevant, New Zealand government programmes.

The interviews were structured and results coded to enable objective analysis and aggregation. Interview sources were triangulated to test for accuracy and consistency.

The method used in the evaluation has been internally peer reviewed and discussed with an international expert. Full details of the method and approach are set out in Appendix 12.1.

A Steering Group, comprising representatives from MED, the Treasury, the Crown Company Monitoring Advisory Unit (CCMAU) and NZVIF Ltd provided input and oversight to the evaluation.

1.4 Nomenclature

For the purposes of this report the following key terms have been used:

1. "VIF" refers to the Venture Investment Fund, government policy for developing the venture capital market.

2. "NZVIF Ltd" refers to New Zealand Investment Fund Limited, a Crown owned entity who, amongst other responsibilities, manages the VIF in accordance with policy.

3. "VIF venture capital fund managers" refers to the private sector venture capital fund managers who manage and invest Crown capital via the VIF.

4. "PE" refers to private equity.

5. "MED" refers to the Ministry of Economic Development.

PART ONE

THE VENTURE INVESTMENT FUND AND VENTURE CAPITAL IN NEW ZEALAND

2. Why venture capital is important

In this chapter venture capital is explained and the evidence for venture capital supporting economic development is considered. The material in this section is based on an extensive review of the economic literature relating to venture capital.

2.1 What is venture capital?

Venture capital is the term given to the provision of capital and management support to private, young, innovative and often high-tech businesses with high-growth potential. Venture capital investments are undertaken to build the value of a company and normally involve a medium to long-term holding period with a clear view to exit in the form of a trade sale or share float. The ongoing viability of a venture capital firm depends on it making good returns to cover for the high risks involved. In creating value, venture capitalists actively work with the management teams of their portfolio companies.

Venture capital is defined to be a subset of the PE asset class.[7] However, the definition of what portion of PE constitutes venture capital can vary between countries. According to the British Private Equity and Venture Capital Association (BVCA)[8] venture capitalists invest in companies at the seed (concept), start-up (within three years of a company's establishment) and early stages of development. Such companies often have little or no track record and are cash hungry. In contrast, other types of PE invest in more mature businesses with the aim of eliminating inefficiencies and driving growth. These types of later-stage investments are called management buy-outs, management buy-ins and mezzanine investments,[9] and cover a range of investment sizes. Venture capitalists invest cash in exchange for equity. Other PE investors may use a mixture of debt and equity.

Venture capital should be distinguished from angel investment. Both venture capitalists and angel investors provide capital and management at the seed and start-up stages. However, venture capital investment is seen to be more structured in that venture capital firms are professional investors who dedicate all their time to investing and building innovative companies on behalf of third party investors or their limited partners. Angel investors are more informal investors who invest in

[7] As noted by Lerner et al (2005) private equity funds are pools of capital that are not listed nor traded in the securities market.

[8] The BVCA is the industry body and public policy advocate for the private equity and venture capital industry in the U.K. The BVCA has a membership of over 450 firms.

[9] Management buy-outs refer to the acquisition of a company or business unit by the managers of a company. Management buy-outs typically occur in a mature industry and use debt to leverage the financial structure. Management buy-ins are when a manager or a group of managers from outside a company buy into a company. Mezzanine investment financing is provided to a company that is already producing and selling a product or service for the purpose of helping the company achieve a critical objective (e.g. enable it to go public).

companies from their own resources. [10],[11] The investment deals that venture capital firms make are usually larger than those made by angel investors.

According to the NZVCA the sources of venture capital investment in New Zealand can be divided into two main groups: venture capital funds and other venture capital stage investors. Both groups can be based in New Zealand or based offshore.[12]

Venture capital funds raise capital from a number of sources (e.g. wealthy individuals, community trusts and institutional investors) and are structured so that they have a fixed life. Within their lifespan the funds invest money committed to them and then later return back the original investment plus any returns (or minus any losses) made to investors. Venture capital funds are driven by specific investment mandates and reporting rules that they have agreed with their investors.[13] As the capital in venture capital funds represents a diverse group of investors, often money is raised in rounds. Once a fund is closed, capital is invested before another fund is raised. However, good venture capitalists maintain capital reserves within a fund to provide additional funding to a company as it grows (this funding is termed follow-on investment).

Other venture capital stage investors tend to work within their own networks and are generally spending their own money. These investors, which include both individuals and groups, have more flexibility around the type and duration of the investments that they make. Other venture capital stage investors are often referred to as private or informal venture capitalists.[14]

In this evaluation MED adopt the distinction between the sources of venture capital used by the NZVCA.

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[10] According to the National Venture Capital Association (NVCA). The NVCA represents the U.S. venture capital industry. As at June 2009 the NZVCA had 472 member firms.

[11] It was revealed from MED's 2007 survey of angel investors that New Zealand angel investors are motivated to invest for (1) the enjoyment of creating new businesses, (2) for altruistic reasons, and (3) for financial returns. Also, angel investors tend to bridge the financing gap between friends, family and founders and venture capitalists.

[12] Refer to the NZVCA's publication 'Fuel for your Business: an entrepreneurs guide to angel and venture capital funding', July 2008.

[13] The NZVCA (2008) note that these rules may cover: what types of companies a fund can invest in and how much, what ongoing information investors will get over the life of the fund, how long the investments will last and when will investors exit.

[14] Other venture capital stage investors could be seen as distinct from angel investors, in that they are solely concerned with the management of their investments to generate financial returns, tend to invest in more established seed businesses, and usually make larger investment deals. However, unlike venture capital funds, other venture capital stage investors do not 'have' to invest.

2.2 Does venture capital assist economic development: a literature review

Overview

Relative to the number of companies that are formed only a small number of firms receive venture capital investment. For example, as cited by Murray (2007) in 2005, the U.K. and U.S. venture capital industries collectively provided funding to 412 seed and start-up companies out of the approximately one million companies that are formed in the two economies every year. Yet, despite the fact that venture capital firms are a small part of any country's financial system, many economists, politicians and those in business are convinced that there is a connection between a country's venture capital industry and economic development.[15]

Meyer (2007) asserts that the discussion of venture capital has become so popularized that it is quite difficult to separate the myths from the facts. Also, research on the venture capital industry as a whole remains quite limited and empirical research is hampered by data availability. Consequently, identifying the impact of venture capital on a country's productivity or economic growth can be difficult. Most studies that analyse the impact of venture capital focus on initial public offering (IPO) rates, links with innovation and firm level performance.

Data from international studies (discussed below) suggest that venture-backed firms have earlier IPOs than non-venture capital-backed companies and that a strong positive association exists between venture capital investment and technology innovation. However, it is unclear whether the supply of venture capital encourages innovation or whether technological progress and innovations stimulate the demand for venture capital investment. A number of studies have also considered the performance of venture capital-backed companies. Venture capital appears to reduce the overall risk of innovating firms failing. However, many such companies will fail and studies considering the performance of venture-backed firms have, not surprisingly, found mixed results.

Venture capital and IPOs

Lerner et al (2005) considered the experience in the U.S. venture capital market, which is the most developed and mature. They compared the average age of a sample of venture and non-venture capital-backed firms in the U.S. at initial public offering and found that, in almost every industry, venture-backed IPOs reached the public market sooner than the non-venture-backed group. In their view, venture capitalists speed the development of companies because they help companies to pursue effective strategies and ensure access to capital. Also, market evidence suggests that the early participation of venture firms helps to sustain success of a company long after an IPO.

[15] For example, refer to Stiglitz (2009).

Venture capital and innovation

Lerner et al (2009) describe the market failure arguments which suggests a particular role for government: "The desirability of venture capital from a public policy perspective lies in the importance of innovation as a spur for economic growth, and that venture capital is an efficient stimulator of innovation." It is not surprising that there is a strong positive association between venture capital investment and high tech innovation, given that venture capitalists tend to target high tech innovative firms. Kortum and Lerner (2000) try to determine which way this causality runs. They assume that a significant increase in funds committed to venture capital in the U.S. in the late 1970s was due to a policy shift that freed pension funds to invest in venture capital, rather than the arrival of entrepreneurial opportunities. They also use research and development data to control for technological opportunities. Using patents as a proxy for innovation, they show that, on average, US$1 of venture capital investment produces three to four times as many patents than US$1 of traditional corporate research and development.[16]

More recent studies, which also control for technological opportunities, add support to Kortum and Lerner's findings. Using data over 1981-2003 Mollica and Zingales (2007) find that a one standard deviation increase in venture capital investment per capital in the U.S. generates an increase in the number of patents between 4 and 15 percent.[17] Hirukawa and Ueda (2008a) find that the positive impact of venture capital on the number of patents observed by Kortum and Lerner (2000) became even stronger in the late 1990s during which the U.S. venture capital industry experienced unprecedented growth. However, they find no evidence that venture capital improves growth in total factor productivity (TFP), arguably a more accurate measure of innovation than patents. In another study Hirukawa and Ueda (2008b) find that the process is 'innovation driven' in the sense that increases in TFP are followed by increases in venture capital investment.[18]

Schertler (2007) looks at the relationship between venture capital investment and knowledge capital (measured by the number of patents, number of research and development researchers, or gross domestic expenditure on research and development). Using data for 15 Western European countries she concludes that there is a positive correlation between venture capital and knowledge capital and that the causality is likely to run from the latter to the former. A better (science)

[16] Kortum and Lerner (2000) note that patents are not a direct measure of innovation. To address this concern they investigate the quality of venture-backed firm patents and assume that higher quality patents are cited by other innovators more often and are more likely to initiate patent infringement litigation. They find that patents of venture-backed firms are more frequently cited by other patents and are more aggressively litigated. Furthermore, venture-backed firms more frequently litigate trade secrets so don't just rely on patenting.

[17] Mollica and Zingales (2007) also find that a 10 percent increase in the volume of venture capital investment leads to an increase in the number of new businesses by 2.5 percent.

[18] In their 2008b study Hirukawa and Ueda also found that one year lagged venture capital investment was often <u>negatively</u> and signficantly related with TFP and patent counts. This result reinforces their earlier finding that venture capital investments do not stimulate innovation.

educated workforce will come up with innovative business ideas that require venture capital financing.

The experience of Israel's Yozma venture capital programme suggests that both the demand for, and supply of, venture capital was important for translating innovation into economic development. The Yozma programme which existed between 1993-98 was instrumental in helping Israel to successfully establish a venture capital industry. Interestingly, there were a number of triggers for establishing the programme. There was an influx of a high number of university educated engineers from the former Soviet Union, many of whom were unemployed and had no business experience. Simultaneously Israeli military industries laid-off hundreds of engineers and many start-up companies were founded – only to subsequently fail. Officials realised that, despite massive government support for research and development, there were clear system failures blocking the successful creation and development of start-ups. These included insufficient sources of finance, weak management abilities and inadequate business know-how. The basic problem was the lack of ability to grow after product development phase. To overcome these deficiencies the government agreed to foster a domestic professional venture capital industry.[19]

Gilson (2003) and Meyer (2007) also emphasise the importance of both the demand and supply side in terms of a functioning venture capital market. Entrepreneurs need to exist in the first place, specialised financial intermediaries need to exist, and investors need to be willing and able to take investment risks.

Venture capital and firm growth

Most studies indicate that venture capital contributes to employment growth. According to results from a survey of 77 venture-backed companies undertaken by the European Private Equity & Venture Capital Association, from 2000 to 2004, employment in venture- backed firms grew at an average rate of 7.6 percent each year across the EU-25. This result compares to a 0.7 percent average annual growth in total employment for the same period. Not surprisingly, most of the venture-backed firms surveyed increased their employment following investment by a venture capital fund. While quantifiably small, another study by Cowling et al (2008) found a positive and statistically significant association between the U.K's Venture Capital Trust programme and employment. This association increased over time and with the size and age of a venture-backed company.

It is the view of MED that employment growth is an indicator, and not a direct measure, of the potential success of a company. More important are the commercial outcomes achieved by venture backed firms. For example, if a company is on a high growth trajectory, one would expect employment growth to follow. However, there could also be cases where high-growth companies become more labour efficient and, over time, have less need to increase employment.[20]

[19] Refer to Avinmelech et al (2007).

[20] Meyer (2007) asserts that looking at statistics like employment for a venture capital fund is questionable. As an example he refers to Schumpeter's "creative destruction" at work: old ways of

Botazzi and Da Rin (2004) question the ability of venture capital to make a difference for firm growth and job creation. They consider the performance of 527 companies using data from Euro.nm, the alliance of Europe's stock markets for innovative companies in high-growth industries (similar to the U.S. NASDAQ). Their findings indicate that, while venture capital helps innovative European companies by providing crucial financing for their creation and development, venture-backed firms do not create jobs nor grow faster than non-venture-backed companies.

Using a dataset that tracks U.S. firms from their birth over two decades, Puri and Zarutskie (2008) find that the question as to whether venture capital-financed firms fail more often is a function of the time period under consideration. They observe that venture capital-financed firms grow more rapidly (as measured in terms of employment and sales) and in their first five years experience lower failure rates. However, beyond five years, venture capital-backed firms that do not achieve a successful exit via an IPO or acquisition are more likely to fail relative to non venture-capital financed firms.[21] Puri and Zarutskie suggest that venture capitalists allow firms time to grow and appear to be "patient" but only to a certain point. There is a window in which they allow firms to continue and grow, but once this is crossed, venture capitalists are relatively quick to shut their firms down.

Avinmelech et al (2007) find that the creation of a venture capital industry in Israel had a positive impact on the growth and strength of high tech clusters. They also find evidence that venture capital-backed firms in Israel are more successful in terms of public listing and business survival rates.

Experience and reputation of venture capitalists

Using new econometric methods Sorensen (2006) looks at the impact of venture capitalists in the U.S. over 1982 to 1995, in terms of their experience. He finds that companies funded by more experienced venture capitalists are more likely to go public. This result follows both from these investors' influence and from sorting in the market. Influence means that experienced investors add more value than inexperienced investors through their monitoring and management of companies, access to networks, and their reputation which may communicate unobserved qualities of a company to the market. Sorting means that experienced investors invest in companies that are inherently better, again giving experienced investors higher IPO rates. Sorensen finds that the sorting effect is almost twice as important as the influence effect.

Using longitudinal data from the U.S. Census Bureau, Chemmanur et al (2007) find that venture capital-backed firms have higher total factor productivity (TFP) than non-venture capital-backed firms and that this efficiency advantage arises from both the

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doing things are endogenously destroyed and replaced by the new. So, the growth of a successful start-up is nearly always at the expense of existing companies.

[21] On average, Puri and Zarutskie (2008) find that venture capital-financed firms have lower probabilities of failure then non-venture capital-backed firms. A number of robustness checks are performed on the data. Venture capital does not appear to have more stringent survival thresholds, venture capital-financed firm failures do not appear to be disguised as acquisitions and particular kinds of venture capital firms do not seem to be driving their results.

screening and monitoring roles that venture capitalists play.[22] While the increase in efficiency prior to venture capital financing is similar across high and low reputation venture capital-backed firms, the increase in efficiency subsequent to financing is significantly higher for the former firms. (Chemmanur et al indicate that this result is consistent with the higher reputation venture capitalists having greater monitoring ability). Most of the higher TFP arose from improvements in sales but high reputation venture capitalists also saw reductions in input costs. Like Sorensen above, Chemmanur found that firms backed by high reputation venture capitalists had a higher probability of exiting through an IPO. In contrast, firms backed by low reputation venture capitalists were more likely to be acquired.

Venture capital and company profits

Cowling et al (2008) found that, while investments made under the U.K's Venture Capital Trust scheme programme tended to be associated with general capacity building and an expansion in sales, on average there was little discernible impact on real gross profits and investments tended to be negatively associated with company profit margins.[23] Also, the survival rates for companies supported under the programme were lower than those recorded in matched but unsupported companies. (They note that non-survival is measured imperfectly and that this finding needs to be interpreted within the context of the target community of young, growth-oriented small companies in higher risk trades.) Cowling et al assert that it is the purpose of any public scheme to strengthen the future capability of the economy. Hence, it is the growth of capacity that is likely to be of more importance than factors of profitability or productivity for young and growing businesses in the short term.

In this respect, using a dataset of Dutch companies, Da Rin and Penas (2007) find that venture capitalists push their portfolio companies towards building absorptive capacity (the capacity to assimilate and exploit new knowledge) and also more permanent in-house research and development efforts. By investing in the build-up of absorptive capacity through in-house research and development, companies may therefore increase their ability to generate future innovations by remaining actively tuned on what others are doing and ready to exploit the opportunities that scientific and technological advances create.

Implications for New Zealand

From the above literature review it is evident that there are different perspectives of what venture capital can and can not achieve – both at the firm and macroeconomic level. For example, while there is a strong association between venture capital and innovation, the research tends to indicate that you can expect different hypotheses as to the direction of causality. Also, the growth and survival of venture-backed

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[22] The increase in efficiency of venture-backed firms relative to non-venture-backed firms is monotonically increasing over the four years subsequent to the year of initial venture capital financing and continues until exit.

[23] Puri and Zarutskie (2008) find little difference in profitability measures at times of exit between their sample of venture-backed firms and matched non-venture capital-backed firms.

companies is contingent on the time period under review and the country under consideration.

In Lerner et al (2005; 2009) other small economies, e.g. Israel and Singapore are shown to have benefitted greatly from a strong venture capital sector. These results bode well for the New Zealand environment. However, the way MED understands the literature and how it might apply to New Zealand is that a vibrant and sustainable venture capital industry and its outcomes depend upon: a steady supply of risk capital; experienced and skilled venture capitalists who can add value and pick the deals worth investing in; a steady flow of innovative ideas in the market[24] and the capacity and motivation of both venture capitalists and entrepreneurs to build on these; acceptable risk-adjusted returns to investors; and the ability to protect intellectual property.

[24] To some extent a steady flow of quality deals will depend on strong and effective linkages between the research base and entrepreneurs.

3. Government intervention in venture capital markets

In this section the rationale for government intervention in venture capital markets, including New Zealand is explored. The types of models used by governments when they participate in venture capital are also briefly noted.

3.1 Why do governments intervene in venture capital markets?

Lerner et al (2005) note that all venture capital markets of which they are aware of have been initiated with government support. From a public policy perspective, venture capital is an important instrument of both entrepreneurial and innovation policy particularly in nascent industries. Rationales for government intervention for establishing a venture capital market draw upon informational problems, or asymmetries, in the financing of a particular class of firms, the presence of economic spillovers, or benefits, from the application of research and development, and developing a venture capital industry, more generally.

3.2 Information problems

As noted in section 2.1 venture capitalists target young, innovative firms with high growth potential who are often technology intensive. These firms seek to develop unproven markets or technology and, as a result, their assets can be difficult to value. Traditional sources of finance, e.g. banks, tend not to finance innovations from these types of firms as they are unable to evaluate their potential for success, to adequately monitor the entrepreneurs once financing is provided, and deem the investments as too risky.[25] Specifically, the group of firms in question have little or no record of performance for investors to assess them against, lack collateral that can be used to guarantee financing and have no cashflow. Venture capitalists aim to fill the financing gap for these types of firms. Venture capitalists have a range of mechanisms to address these types of information problems and also have expert knowledge and considerable experience of the sectors in which they invest. They are, therefore, better able to understand and help manage the risks associated with investing in these types of firms.

Lerner et al (2005; 2009) explore the processes employed by venture capitalists to overcome these types of information problems. Venture capitalists first screen business proposals to determine whether they have a sustainable competitive advantage which, in the case of high technology industries, normally derives from intellectual property (IP) and innovative ability. (Unless a venture capitalist sees the potential for patents or some other form of protected IP, an investment is unlikely to proceed). By working alongside their recipient firms, venture capitalists also actively monitor and control their investments, and any funding is provided in stages with pre-agreed thresholds needing to be reached for funding to continue. In section 2.2 it was highlighted that the better (i.e. more

[25] Either the banks do not have the specialist knowledge nor expertise to screen and monitor these entrepreneurial firms or the fixed costs of screening and monitoring are proportionally larger in relation to the amount of profit that such investments are expected to generate. As noted in a report published by Infometrics (2004) the upside of a ‘debt’ instrument for a bank is limited at the level of interest rate charged on the loan, thus downwardly biasing a bank’s expected return.

experienced) venture capitalists are at such processes, the better the likely outcome for their investee firms.

Besides potential investors having relatively less information about the success of a business than the owner, business entrepreneurs have relatively less information about the investment process than those who are actively engaged in investing. As a result, business entrepreneurs may not be aware of all the financing options available to them, may misunderstand the requirements of investors, and/or not know how to make an attractive investment pitch to potential investors. While venture capitalists supply equity capital and management know-how to a business they can also indirectly educate entrepreneurs on the investment process, including investment readiness.

3.3 Research and development spillovers

Research and development spillovers occur when society at large automatically gains access to, and benefits from, an innovation. For example, competitors may receive economic rents, or benefit, from a new innovation by emulating and copying its key attributes, rents may accrue to developers of complementary products or services and consumers, more generally, benefit from a greater range of products and services available.[26] Mansfield et al (1977) suggest that small firms, due to their lesser market power and inability to finance the defence of their IP positions, are particularly likely to see their returns eroded from spillovers. It is noted in the literature that these innovative small firms are also likely to be candidates for venture capital investment – both financial and the provision of business assistance.

It is MED's view from the literature that governments appear to intervene in venture capital markets when they believe that the supply of venture capital funding is compromised, or suboptimal for interested parties.[27] For example, despite venture capitalists providing capital to a class of firms that are unable to obtain financing elsewhere, not all of these firms are successful in securing venture capital. Or, investors ration their finance as they believe they are unable to capture the full commercial benefits of their investments due to the presence of economic spillovers. The general argument is that, without government supporting venture capital activity, material economic and other benefits may be lost to an economy.

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[26] From a review of the literature, Griliches (1992), estimates that the gap between the private and social rate of return is between 50 and 100 percent of the private rate of return, although this depends in part on the nature of the research and development.

[27] There is debate in the literature as to the extent of these suboptimal responses. Meyer (2007) notes that in Europe there is growing literature on "funding gaps" related to the financing of small and young firms, but it remains inconclusive. Lerner et al (2005) notes that there is not as yet a well developed theory and empirical testing of the costs and benefits of government involvement in venture capital markets. Murray (2007) asserts that determining the importance or even existence of such suboptimality requires a view of both demand and supply-side efficiencies. For policymakers, the quandary exists in determining when a constraint in financing is either an adverse outcome of an inefficient or ill-informed market, or a rational and well informed judgment by an efficient market to an unattractively priced proposal. The former may be an argument for government intervention. However, in the latter case, the failure resides in the entrepreneur's inability to demonstrate the attractiveness of the business proposal.

3.4 Developing a venture capital industry

Rodrik (2004) stresses a role for government in establishing markets which provide mechanisms for higher risk finance to allow the funding of innovative types of economic activity. This is necessary, in his view, to allow the development of companies whose activities are 'substantially new… (and) have the potential to provide learning spillovers to others in the economy'. For Rodrik, such companies provide important information to others about what types of business activities can be pursued profitably in local conditions.

This process of 'self-discovery' will apply also to the venture capitalist role itself. As more players enter a venture capital market and returns are made, overall understanding of the market increases. Lerner et al (2005) indicate that this situation would be evidenced by entrepreneurs becoming more familiar with the trade-offs associated with venture capital financing, intermediaries such as lawyers, accountants and business advisers becoming more familiar with the venture capital process and better advising entrepreneurs and financiers, and investors gaining greater comfort that venture capital investment is viable. Venture capitalists can also more readily find peers with whom they can share transactions. This syndication may be important as Hochberg et al (2007) find that the venture capital funds of better networked venture capital firms perform better than those that are less well connected.

As a venture capital market develops and its processes become standardised both the costs of entry and the transaction costs of operating in the market also decline. These reductions in costs apply to both venture capitalists and supporting ancillary services, i.e. lawyers, accountants and business advisers.

The process of market development will lessen the inefficiencies of a 'thin market' where limited numbers of investors and entrepreneurial growth firms within the economy have difficulty finding and contracting with each other at reasonable costs. (See the research paper produced for the BVCA and the National Endowment for Science, Technology and the Arts (NESTA)[28] (September 2009) for a discussion of thin markets and how to address them.)

3.5 Other arguments for government intervention

By investing public money through private venture capital funds in the early stages of the development of the market governments may be able to provide these funds with a level of accreditation. Venture capital funds can take a while to develop a track record. The due diligence processes that such funds are required to go through before being awarded government funding can provide a 'sign of approval' to the market. As interested private investors are assured that a venture capital fund meets a set of minimum requirements they may be more forthcoming with finance.

The accreditation argument pre-supposes that a government or its agent has an advantage, or particular knowledge, when it comes to identifying promising venture capital funds. Meyer (2007) notes that any such due diligence would need to be standardised

[28] NESTA is the U.K.'s leading independent expert on innovation.

and applied consistently and the certifier would need to build and maintain a reputation that venture capital funds are assessed from the viewpoint of private sector investors.

Some commentators believe that, even when a market is sufficiently mature, government involvement with venture capital should be ongoing. This argument depends on the existence of transaction costs that lead to some profitable venture capital projects being foregone. Specifically, the largely fixed costs of due diligence at the company level and trying to run a venture capital operation to maximise returns and minimise costs lead venture capitalists to focus on later-stage and/or larger investment deals.[29] As a result, some early-stage deals may not go ahead and there can be a detrimental impact on projects requiring lower levels of finance. Governments may be able to reduce transaction costs so that market agents can make fully informed decisions and more 'marginal' deals get done.[30]

Regardless of why governments intervene in venture capital markets, Lerner et al (2005; 2009) assert that government funding should probably not continue indefinitely and that its purpose and direction may need to change over time. 'Over time public programmes tend to converge towards the same market segments as the private sector, rather than addressing gaps in the provision of risk capital. This tendency can crowd out private investors or even delay the development of private participation in the venture capital market' (Lerner 2005; 2009). [31]

3.6 The case for New Zealand

The rationale for government involvement in the New Zealand venture capital market is that venture capitalists are an important source of capital and management know-how for a particular group of firms. These firms include innovative firms, firms with high-growth potential, and firms that are technology intensive. By accelerating the development of the venture capital market the government is seeking to increase the potential rate that innovations get commercialised. The government is also seeking to stimulate the emergence of businesses based on technology and high-value added products and services.

In early 2001, when government decided to implement policy in the venture capital market, it was recognised that the seed end of the New Zealand venture capital market was underdeveloped compared to the rest of the venture capital market and relative to venture capital markets overseas. Essentially, there were perceived shortfalls in both the supply of

[29] It is noted in a report by HM Treasury (2003) that the extra time that investors often have to contribute to mentoring and providing management support to young companies can significantly add to investment costs. Potential investors can also face significant 'search costs' when seeking out opportunities and these costs represent a larger proportion of lower value deals. Murray (2007) notes that, in circumstances where small investments may incur transaction costs out of kilter with the probable benefits of the investment, the decision not to invest is rational.

[30] It should be clear that any such government action to reduce transaction costs would leave it to market agents to decide which projects to choose and that it comes at a cost with government, in effect, subsidising due diligence on prospective investments.

[31] There is evidence that governments are at least as likely to produce overall negative effects by their involvement in markets as they are to engineer a lasting improvement in market conditions (Gilson, 2003).

capital and people with the skills and capabilities at the seed stage of business formation.[32] [33]

Entrepreneurs often discount the risk of investment in their innovative ideas, making deals difficult to achieve. It was recognised that the government could help change the risk profile by taking on some of the risk itself and ensuring sufficient venture capital was available. As the risk/reward profile of seed investments was seen to be much steeper than expansion deals, venture capital policy in New Zealand was originally designed to focus on these early-stage firms.[34] Information asymmetries, research and development spillovers, and transaction costs are normally less pressing issues for companies in an expansionary phase, making it easier for venture capital firms and other finance providers to assess the risks involved in investing in these types of firms.

In February 2001 evidence of a shortage of visible, organised seed capital to support early-stage development in New Zealand included:[35]

- A 1999 consultation process carried out by the then Ministry of Commerce which highlighted the relative difficulty of raising capital for innovative projects and firms at the seed stage. Overall, there was substantially less funding available than for later stages such as business expansion.

- A July 2000 study by Infometrics Ltd commissioned by Treasury which interviewed 20 participants in the venture capital market in New Zealand. The study confirmed the existence of a relative shortfall in venture capital at the high-risk end of the market. [36]

- A November 2000 review by Jenny Morel of Morel and Co noted that the supply of seed venture capital was increasing but there was a role for government in filling gaps and accelerating development of the market. A specific role was identified for government in augmenting funds available to venture capitalists to that they could build a track record and attract more funds from the private sector, including international co-investors.

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[32] Cabinet paper EXG(01) 6 refers.

[33] In 2003 the government recognised shortfalls in the areas of skills and capabilities of entrepreneurs in seeking finance and developed programmes to address them – e.g. Escalator which aims to improve the capabilities of entrepreneurs to prepare proposals for investment as well as assisting them to raise capital. Co-ordination with other government programmes is one of the operating principles of the VIF. However, a key point of policy is that astute fund managers and businesses will make every effort to avail themselves of all forms of government assistance and need not be directed to do so.

[34] The investment horizon is longer and there is often a lack of liquidity and general certainty of investment returns for seed and start-up investments, relative to later-stage investments (Lerner et al, 2005).

[35] Lerner (2009) refers to other empirical research that suggests new firms, and especially technology-intensive ones with products yet to be tested in the market, may receive insufficient capital to fund all their positive net present value projects due to information problems in the normal financing markets.

[36] The study found no clear evidence that there was a general lack of capital for business, nor a shortage of good propositions to invest in.

- A December 2000 report prepared for the Science and Innovation Council by John Blackham identified the gap as a "shortage of firms equipped to manage seed capital rather than a shortage of seed capital itself".

When the design of the VIF was agreed in May 2001 Cabinet broadened the focus of the scheme to include seed <u>and</u> start-up investment. This change was made to encourage fund managers and investors to participate in the VIF. Both seed and start-up stages of business development are defined to be 'early-stage'.

Particular issues continue to face the financial system in New Zealand, which were reviewed in a New Zealand Treasury Policy Perspectives Paper (PPP) in 2007.[37] The main findings of this paper remain valid, and indicate a relatively difficult environment in which to foster venture capital markets:

> *The level of development of New Zealand's financial system is patchy: a large, efficient and sound banking system sits alongside equity, venture capital and debt markets that in size, depth, liquidity and skill base are relatively underdeveloped…New and emerging firms may face particular difficulties accessing finance and related services…. Some of the likely causes and consequences of the current features of New Zealand's financial system include: the low level of national saving; the imperfect substitutability between foreign and domestic saving; the relatively high cost of capital and potentially limited demand for capital.*

3.7 Models of government intervention

Jääskeläinen et al (2004) note that government has two generic choices in intervening in venture capital markets: direct or indirect intervention. In directly intervening in the venture capital market government itself becomes a venture capitalist and undertakes the roles that would otherwise be the responsibility of a private investor. With indirect intervention private venture capital firms act as an agent of government or, alternatively, government delegates executive responsibility to a private venture capital fund manager.

Gilson (2003) notes that indirect intervention via an equity enhancement scheme has become the dominant contemporary model of public involvement as the importance of highly skilled, and properly incentivized, investment managers is recognised. A 'hybrid' public/private venture capital model is now seen as best practice by the OECD, the U.S. Department of Commerce and the European Commission. In this model the government participates in the market alongside private investors as limited partners in venture capital funds managed by venture capital firms or general partners.

The hybrid model as the basis for intervention is used by many countries, including New Zealand. There are, however, variations to how the model is enhanced to encourage private sector participation (see Murray (2007) for a range of these enhancements across countries).

Regardless of the type of model used, not all governments have achieved success through intervention in venture capital. Each country's experience is unique and the ultimate success of venture capital policy depends on a number of interrelated factors. Lerner et al

[37] Refer to New Zealand Financial Markets, Saving and Investment; PPP 07/01 (Cameron et al, October 2007).

(2005) review government initiatives in venture capital across a number of countries. Key findings include:

- demand side policies that foster the research and development and entrepreneurial capabilities need to be broadly aligned with the commercialisation process so that they complement, rather than undermine, the venture capital process;

- supply side tax policies and attitudes of large institutional investors play a prominent role in the availability of venture funding; and

- venture capital policy needs to be attractive to private sector investors, both nationally and internationally.

The demand side policies will be addressed in this evaluation.

4. Policy for the Venture Investment Fund

In this section the design of government policy to grow the New Zealand venture capital market; namely the VIF[38] is discussed. The rationale for this policy and supporting evidence was presented in section 3.

The current form of government support for venture capital was decided upon after extensive consultation with key stakeholders and practitioners in the venture capital industry, both within New Zealand and overseas. Over time, the original parameters of government support have altered to reflect greater understanding, experience and the changing needs of the market.

MED's evaluation of the delivery of this policy by NZVIF Ltd and the achievement of programme outcomes appears in Part Two of this report.

4.1 Programme objectives

The overall objective of the VIF is to accelerate the development of the venture capital market in New Zealand to the point where there is a self-sustaining local venture capital market no longer requiring government support. Development of the venture capital market is expected to be evident in the following objectives, or outcomes:

- increased level of early-stage (i.e. seed, start-up and early expansion) investment activity in the New Zealand market;
- a larger pool of people in New Zealand's venture capital market with skills and expertise in early-stage investment;
- increased commercialisation of innovations from the CRIs, Universities and the private sector; and
- more New Zealand businesses on paths to global success by increasing their access to international experts, networks and market knowledge.

4.2 Activities of the VIF [39]

There are two forms of activity for achieving the programme objectives.

(1) The main activity is an equity investment fund of $160 million which invests alongside private sector investors in a series of privately managed venture capital funds. The VIF venture capital fund managers are selected by NZVIF Ltd on the basis of:

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[38] Previous government support of the venture capital industry has included the Greenstone Fund. The Greenstone Fund was a joint government/private sector equity development fund of $25 million which operated from 1993 until 2007. While the Greenstone Fund initially undertook minority shareholdings in small but relatively mature New Zealand firms, the eventual investment strategy of the Fund changed to investments in later-stage PE type companies (i.e. management control and large shareholdings).

[39] Policy papers underpinning section 4.2 and 4.3 include POL(01) 80 and the November 2001 CAB paper.

- commercial merit, as judged by their ability to raise private-sector co-investment funds and their credentials in business management and management of venture capital funds; and

- provided commercial merit has been met, the degree to which a fund's proposed management structures and investment strategies will contribute to achieving the objectives of the programme.

Investment decisions are made by the private venture capital fund managers.

(2) NZVIF Ltd is also tasked with undertaking initiatives to develop the market[40], for which there is an annual budget of $200,000.

4.3 Operating principles

4.3.1 Fund structures

The VIF venture capital funds will normally operate for ten years and invest in New Zealand enterprises (in terms of their VIF investments) before divesting their shareholdings and distributing investment returns to investors. New Zealand enterprises are defined to be businesses that have the majority of their assets and employees in New Zealand at the time when initial investments are made. Investment exclusions apply to property development, retailing, mining, hospitality-industry businesses, re-investment and re-lending and businesses associated directly with other investors in a fund or directly with the private venture capital fund partners.

When the VIF was established in early 2001 Crown investment was limited to $12 million in each VIF venture capital fund. In November 2001, to encourage suitably experienced venture capital fund mangers to partner with the VIF, the investment limit was raised to $25 million per VIF venture capital fund.

4.3.2 Investment focus and contribution ratios

The investment focus and investment contribution ratios of the VIF have changed over time:

- When the design of VIF was agreed in May 2001 investments were restricted to seed and start-up investments on a 1:2 basis with VIF venture capital investors. While NZVIF Ltd would normally contribute up to one third of the total capital of a fund the Board of NZVIF Ltd had the discretion at the time to go up to a 45 percent stake in each fund if there were sound commercial or public policy grounds for such a decision.

- In November 2001 the investment focus was extended to include early expansion investments at a Crown to private sector co-investment ratio of 1:2. This change

[40] This component was introduced in April 2006. Market development initiatives include such things as promoting New Zealand's venture capital industry both domestically and internationally, assisting venture capital firms to form collaborative links and briefing the government on industry related market development issues.

was made to avoid restricting or dissuading some potential fund managers and other co-investors whose investment focus included all aspects of early-stage investment, from seed through to early expansion. However, at that time it was stated in policy documents that investments in early expansion deals would only occur to ensure the economic viability of the VIF and that seed and start-up investments remained the main focus of the scheme.

- For private sector venture capital funds joining the VIF from October 2006 co-investment ratios of 1:1 for seed and start-up investments apply and investments can also be made into expansion and late expansion deals on a 1:4 and 1:5 basis, respectively. The co-investment ratio for early expansion remains at 1:2. The October 2006 changes were made to increase private sector investors' incentive to invest in the VIF and enable the establishment of larger new VIF venture capital funds.

As the policy currently stands the Crown can invest on pre-determined investment ratios alongside private investors on the following basis:

- 1:1 for seed and start-up investments;
- 1:2 for early expansion investments;
- 1:4 for expansion investments; and
- 1:5 for late expansion investments.

Market failure is seen as most acute for early business stage investments due to the greater degree of uncertainty and risk. The higher Crown contributions for early-stage (i.e. seed, start-up and early expansion) venture capital investment are expected to provide private sector investors with an incentive to make investments in such companies. The argument for government funding of later-stage investment (i.e. expansion and late expansion) is to allow fund managers to spread or diversify risk and is therefore more generally aimed to developing a sustainable venture capital industry . Because the market failure and commensurate risk is much reduced at the later stage, a lower matching ratio for later-stage investment is appropriate. Refer to Appendix 12.2 for definitions of each investment stage.

4.3.3 Investment process

When the VIF was established, the policy documents stipulated that, of the VIF capital invested into each private venture fund, no more than 15 percent of that capital was to be invested in any one portfolio company (initial plus follow-on investment). In October 2006 Cabinet agreed that the Board of NZVIF Ltd should have the discretion, on an exceptional basis, to allow follow-on investment so that the overall VIF investment into an individual portfolio company can reach up to 20 percent of the VIF capital in that fund. In such an event, there is a requirement that the Board provide advance written notification of such investments to shareholding Ministers. It was envisaged that, while such a change may raise the risk profile of a fund, it would enhance flexibility and achieve consistency with industry best practice. It also ensured that fund managers made the right follow-on investment decisions, rather than NZVIF Ltd becoming active in the investment decision.

NZVIF Ltd is required to invest in closed end (rather than evergreen) funds.

NZVIF Ltd does not participate in investment decisions of the venture capital funds which it invests in. The investment decision is made by the fund manager.

4.3.4 Buyout clause

VIF venture capital funds have an option to buy out NZVIF Ltd's investment at any stage up to the mid-point (typically five years) in the life of each fund at a cost that refunds the Crown's capital plus interest. (Interest is calculated at a rate that is not less than the applicable Government bond rate at the time the fund is established.) If this buy-out option is not exercised then NZVIF Ltd will take a pro-rata share in the proceeds of the VIF (including losses, if these have occurred) at termination, i.e. ten years, on the same terms as all other investors (limited partners) in the fund.

Exit repayments will be retained within the VIF with the value of those repayments deducted from future Crown capital investments. Any repayments above that required to fund the desired total level of new commitments to VIF venture capital funds will be returned to the Crown.

4.3.5 Other operating principles

It is also noted in policy documents that:

- the activities of the VIF should accelerate market development without crowding out existing venture capital operations or otherwise distorting market operations,
- the operation of the VIF will complement and be co-ordinated with other government industry and regional development initiatives;[41] and
- the VIF will be operated so that, as far as possible, the Crown recovers its capital plus an increment equivalent to the accrued cost of borrowing that capital over the lifetime of the Fund. (It is implied that the government will not seek to make a profit from its own investment).[42]

4.3.6 Extensions to the operating principles: the Annex Fund

The global financial crisis created an environment that made it increasingly difficult for high-growth potential companies to raise the capital required to support their operations. In response to the very difficult market conditions and approaches from the original four VIF venture capital fund managers, in December 2008 NZVIF Ltd allocated $20 million[43] VIF Crown capital to additional follow-on co-investment through the four funds via an "Annex Fund".

[41] For example, Escalator and the SCIF.

[42] Nothing that NZVIF Ltd do would lower the maximum expected return of individual venture capital funds.

[43] Initially, NZVIF Ltd advised the Minister that Annex funding would be capped at $15 million. As of June 2009 Annex Fund commitments stand at $19 million.

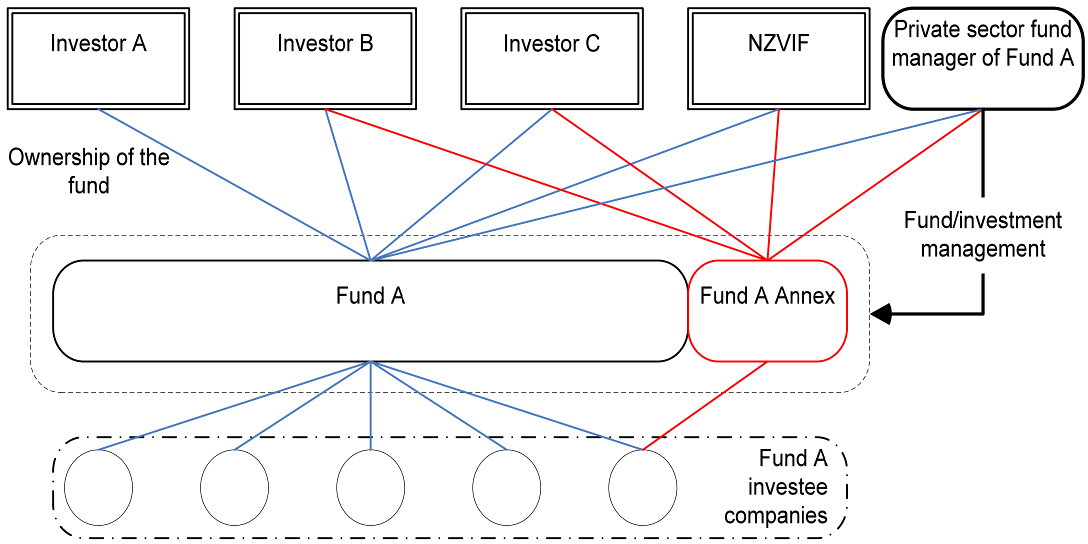
The Annex Fund allows for Crown to private sector investment at a ratio of 1:2[44] and up to $5 million per VIF venture capital fund across two to three companies. Investment per company is limited to $2 million and must be in accordance with the portfolio percentage limits of the VIF (discussed above). Investments under the Annex Fund must first attract third party co-investor funds, i.e. funds outside the existing VIF. The life of the Annex Fund is fixed in its duration, with a maximum matching the life of the partner private venture capital funds.

Before utilising the Annex Fund VIF venture capital fund managers must have finished making new investments and have exhausted their own options for follow-on funding.

Figure 4.3(a) shows that the capital (NZVIF Ltd and private) channelled into portfolio companies via the Annex Fund is a subset of the capital commitments of the VIF. Only a few VIF portfolio companies receive follow-on funding via the Annex Fund.

As with the venture capital funds, the investment decision is made by the fund manager, not NZVIF.

Figure 4.3(a): Diagrammatic representation of the Annex Fund



Source: MED

At the end of 2009 the Board of NZVIF Ltd will review the Annex Fund arrangements, after taking into consideration the capital raising environment and feedback from fund managers on the status of their portfolio companies.

[44] By virtue of investing in portfolio companies of the first four VIF venture capital funds, Annex funding is seen to be invested in 'early-stage' companies.

4.4 Logic model

The following logic model for the VIF represents the views of MED and NZVIF Ltd as to how the Fund is designed to address identified needs and lead to desired outcomes. The bolded boxes in the logic model indicate the areas where the evaluation will be focussed. As it may be too early for final outcomes to be adequately assessed, MED will consider preliminary indicators to assess likely future outcomes. The contribution to macroeconomic growth that a well-functioning financial market can make is taken as given.

VIF logic model

VENTURE CAPITAL MARKET ISSUES

High growth potential companies require external financing to fund their rapid growth, however, many do not have the collateral to secure this financing.

Imperfect information makes the risk return profiles of the business opportunities unattractive to investors who take their funding elsewhere.

Low levels of activity and experience in venture capital markets

NZVIF Ltd ACTIVITIES

Select VIF venture capital fund managers based on their:

- commercial merit, credentials in business management and management of venture capital funds; and
- whose fund management structures and investment strategies are aligned with the goals of the VIF.

Negotiate contracts with these managers, including investment terms and governance.

Conduct post investment monitoring, investment valuation and review investor reporting and investment progress.

Invest with private venture capital funds in accordance with the mandate for the Venture Investment Fund.

Undertake Fund administration and investment risk management and reporting.

Undertake market development initiatives. Provide input and advice to government on market development policy issues. Report on programme and market developments, against SOI.

INTERMEDIATE OUTCOMES

Increased level of early-stage venture capital investment activity in the New Zealand market.

Increased pool of people with skills and expertise in early-stage investment.

Increased commercialisation of innovations from CRIs, Universities and the private sector.

More NZ businesses on paths to global success.

FINAL OUTCOMES

Assumption: ceteris paribus the intermediate outcomes will result in the final outcomes.

Returns made, capability built, and industry scale mean that the venture capital market can become self-sustaining, i.e. no further government investment is required.

Catalyse venture capital investment that would not have occurred without the VIF.

4.5 Programme reach

The application process, to date, to invest with NZVIF Ltd under the VIF is summarised in table 4.5(a). Between 2001 and 2007 NZVIF Ltd held four separate application rounds. Five funds successfully closed funds (i.e. raised capital in the market) and thus were able to invest with NZVIF Ltd from round one. Three of these funds became active in 2002 and the remaining two in 2003. (One fund from round one exercised the buy-out option after one year and subsequently exited the venture capital market).[45] The two venture capital funds that successfully closed their funds in rounds two and three become active in 2004 and 2007 respectively. Round four is still in progress with three potential venture capital fund managers currently capital raising, having received conditional investment commitments from NZVIF Ltd. One further prospective fund manager is still being reviewed. Three of the applicants in round four were from existing VIF venture capital fund managers who are aiming to establish further venture capital funds.

Since 2008 NZVIF Ltd have moved from holding application rounds to considering applications from prospective venture capital fund managers on an as required basis. Two further proposals have been reviewed on this basis. However, these proposals are in a position of uncertainty about capital availability as, given current Crown commitments, NZVIF Ltd are unable to enter into further conditional commitments.

Table 4.5(a): The VIF application process

Dates	Number of applications reviewed	Number of funds that underwent diligence	Number of funds that had term sheets agreed	Number of funds able to invest with NZVIF Ltd
2001: round 1	16[46]	9	6	5 (1 has since exited)
2003: round 2	8	3	1	1
2005: round 3	9	3	2	1
2007: round 4	4	4	3*	*
2008 onwards	2*			
Total	**39**	**19**	**11***	**7** (1 has since exited**)**

Source: NZVIF Ltd
*In progress

Table 4.5(b) shows NZVIF Ltd capital commitments to each VIF venture capital fund and the total capital committed to VIF investments by these funds. All commitment figures are stock measures.

[45] The IO Fund ceased investment activities within a year of being accepted as a result of a change in strategic focus of the private investors in the fund. The private investors in the IO Fund elected to exercise the buyout option, which returned to NZVIF Ltd all invested capital plus interest. The IO Fund has since closed.

[46] 43 applications were registered, of which 16 were assessed as having potential to establish venture capital funds based on the experience of the proposed management team and ability to raise private sector investment.

As of June 2009 NZVIF Ltd has committed $109 million of the $160 million capital allocated to the VIF across six VIF venture capital funds. A further $51 million of conditional commitments have been made to new funds. A total of $212 million of private capital has been raised by six VIF venture capital funds.

Table 4.5(b) Cumulative capital commitments under the VIF

	2003	2004	2005	2006	2007	2008	2009
NZVIF Ltd capital commitments to:	**$65.0**	**$50.1**	**$60.1**	**$60.1**	**$77.6**	**$86.3**	**$109.0**
TMT Ventures	$15.0	$15.0	$15.0	$15.0	$18.0	$18.0	**$21.0**
Endeavour i-Cap	$10.0	$13.0	$13.0	$13.0	$13.0	$13.0	**$13.0**
IGlobe Treasury	$10.0	$10.4	$10.4	$10.4	$10.4	$10.4	**$10.4**
No. 8 Ventures	$10.0	$11.8	$11.8	$11.8	$11.8	$11.8	**$11.8**
Bio Pacific Ventures			$10.0	$10.0	$10.0	$10.0	**$10.0**
Pioneer Capital Partners					$14.5	$23.2	**$23.8**
Annex Fund[47]							**$19.0**
IO Fund[48]	$20.0						
Total private sector commitments	**$130.0**	**$100.3**	**$120.3**	**$120.3**	**$141.0**	**$167.6**	**$212.0**
NZVIF Ltd conditional commitments to:							**$51.0**
Endeavour Growth							**$20.0**
2Ignite							**$20.0**
TBC							**$11.0**
NZVIF Ltd capital available for new funds							**$ 0**

Source: NZVIF Ltd Annual Reports
Figures are June year basis. Figures may not add to totals due to rounding.

Funding commitments have increased for five funds. In four cases, the increase represents different fund close-outs. For example, for the Endeavour i-Cap fund, their first close-out was 2003. Subsequently, they had a second close-out in 2004 when more capital was raised. In the case of TMT Ventures, they re-assigned some of their own funds in 2007 and again in late 2008 and so the funding commitment from NZVIF Ltd increased accordingly.[49]

Apart from the IO Fund, none of the funds noted in table 4.5(b) have exercised their buyout option and the opportunity to do so has lapsed for four of these. If these four funds had exercised the buyout option $53.1m (the total capital commitment) plus interest (calculated on the basis of the Crown's cost of capital) would have been returned to NZVIF Ltd for further investment.

[47] Commitments under the Annex Fund apply to four of the existing private sector venture capital funds. The notional commitments are $5 million per fund for three of the funds and $4 million for one fund.

[48] The IO Fund has exited the Venture Investment Fund and monies have been refunded to NZVIF Ltd.

[49] The 'late' allocation of funds to TNT is within the mandate and agreed to by the Board of NZVIF Ltd.

NZVIF Ltd currently has no capital to commit to new VIF venture capital funds. It is possible, however, that some additional capital could be freed up from existing commitments (e.g. via realisations of investments) for other parties in the future. NZVIF Ltd reports that they have a pipeline of five prospective funds that they have been engaged in discussions with, with potential demand of $35 million to $60 million.

The investment capital drawn down for investment by each VIF venture capital fund is discussed in section 7.

4.6 Institutional setting for NZVIF Ltd's activity

In 2002 NZVIF Ltd was established as a limited liability Crown company (refer POL (02) 114). This was to '…insulate the Crown from the range of risks involved'. It was noted that the company was being established to stimulate the venture capital market and not to make an accounting profit. In the Cabinet paper it was noted that the company's constitution and Statement of Intent (SoI) would limit the activities of NZVIF Ltd '...in ways that would be unusual for a private sector company in order to focus on, and achieve, the existing policy objectives of the programme'.

NZVIF Ltd is the only New Zealand crown company listed in schedule 2 of the Crown Entities Act without another Act through which specific direction is given. Influence from the Crown comes through participation in the process of setting and monitoring the company's strategic direction and targets. This occurs through the SoI/annual report process and the letters of expectation signed by shareholding ministers.

NZVIF Ltd has two shareholding Ministers, the Minister for Economic Development and the Minister of Finance, with the Minister for Economic Development designated as the responsible Minister. The shareholding Ministers appoint a Board of Directors to oversee the management of NZVIF Ltd and to appoint the CEO of NZVIF Ltd. This is carried out under the terms of the Companies Act, the relevant legislation under which NZVIF Ltd operates, and the constitution of NZVIF Ltd.

Under the Companies Act, the Board is responsible for managing, by or under its direction or supervision, the business and affairs of NZVIF Ltd. However, the role of the Board of a Crown company differs in some respects from the Board of a privately owned company. For example, all decisions relating to the operation of a Crown company must be made by, or pursuant to, the authority of the Board in accordance with its SoI. Further, under the constitution of each Crown company, shareholding Ministers, rather than the Board, appoint the Chair and Deputy Chair and set directors' fees.

The responsibilities of the Board of NZVIF Ltd include:

- Appointing a CEO and managing and monitoring the CEO's performance
- Providing leadership and vision to NZVIF Ltd in a way that will enhance shareholder value
- Developing and reviewing company strategy
- Monitoring the performance of senior management
- Reviewing and approving NZVIF Ltd's capital investments and distributions

- Ensuring compliance with statutory requirements
- Providing leadership in its relationships with key stakeholders including, where relevant, industry groups, Maori and staff
- Preparing an annual draft SoI and delivering it to shareholding Ministers, considering shareholding Ministers' comments on the draft SoI, and submitting a final SoI for the responsible Minister to table in the House of Representatives
- Developing an annual business plan and delivering it to shareholding Ministers at the same time as the draft SoI
- Holding management responsible for meeting the performance measures/milestones in the SoI and business plan
- Establishing appropriate governance structures (such as Board Committees and clear lines of responsibility and accountability between the Board and management) to ensure the smooth, efficient and prudent management of NZVIF Ltd
- Reporting to shareholding Ministers in accordance with legislative requirements and the expectations set out in the Crown Owned Company Owners Expectations manual

CCMAU, in conjunction with the Treasury where appropriate, is responsible for monitoring NZVIF Ltd and reporting to shareholding Ministers.

Funding for NZVIF Ltd was originally from a non-departmental output class in Vote Research, Science and Technology. The source of funding was moved to Vote Economic Development and so responsibility for ensuring that appropriations are spent for purposes corresponding to policy objectives rests with MED.

This triangular relationship of activity, monitoring and policy oversight is somewhat unusual and more complex than arrangements applying to most Crown Entities. It makes the specification of roles and responsibilities for monitoring and oversight difficult and may have contributed to some of the communication problems described in section 8.4. MED wonder whether a more straightforward institutional arrangement, with MED having monitoring responsibility for NZVIF Ltd as well as responsibility for providing policy advice for Ministers (who may wish to give direction to the Board of NZVIF Ltd in relation to the annual SoI), would not be preferable.

5. What does New Zealand's venture capital industry look like?

In this section an overview of how the New Zealand venture capital industry has developed and how it compares with venture capital activity overseas is presented. More detailed information about activity within the VIF is presented in part two of this report.

5.1 An industry overview

As noted in section 2.1, New Zealand's venture capital market consists of venture capital firms that raise funds from a range of sources and have a specific life (usually ten years) and individuals or groups of investors that invest in similar companies but on a more informal and flexible basis. Included in this landscape are occasional overseas venture capitalists that invest in New Zealand businesses.

Currently, there are six venture capital funds supported by government funding and managed by VIF venture capital fund managers. Two of these fund managers include individuals who were active in the New Zealand venture capital market prior to the VIF – one having previously raised a formal venture capital fund and one where individuals within the management team had invested in venture type companies on a less structured basis. Two of the other venture capital funds are managed by a company with a history of managing larger PE funds in New Zealand. One other venture capital fund is a joint venture between an offshore venture capital fund and a local individual with experience in raising capital for and investing in early-stage companies. The remaining fund is comprised of individuals who developed their careers overseas in related financial fields.

Only one of these six venture capital funds is currently seeking new investment opportunities. The other five funds are at the stage of managing existing investments and providing follow-on investment (using either existing funds or funding via the Annex Fund facility).

NZVIF Ltd investment via the VIF places restrictions on the types of companies in which VIF venture capital funds can invest in. However, two of the venture capital funds have wider investment activity outside of the VIF. These funds have two components (one focussed on investments that meet NZVIF Ltd criteria and one that is not bound by NZVIF Ltd investment conditions.[50]

The size of the venture capital funds varies. Incorporating VIF commitments and associated private sector commitments the sizes of four of the funds are $31 million, $35 million, $39 million and $67 million. With additional private sector monies (discussed above) the size of the other two funds are $100 million and $103 million.

[50] As these venture capital funds were early partners to the VIF their investments with NZVIF Ltd are restricted to early-stage companies. Their non NZVIF Ltd investments can include investment in later-stage companies, as well as non-New Zealand based companies.

While each VIF venture capital fund focuses on technology investments, as shown in table 5.1(a) some funds specialise within the technology sector.

Table 5.1(a) Venture capital funds in New Zealand, technology sector specialisation (multiple categories possible)

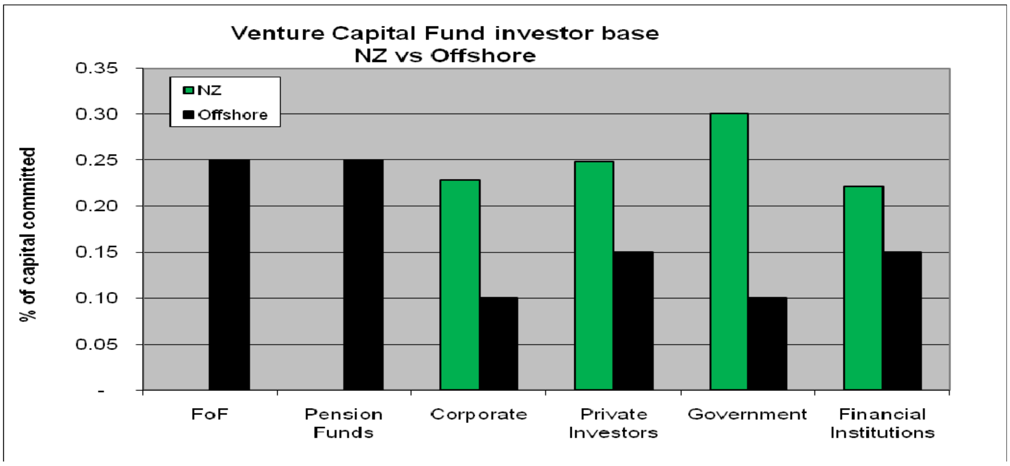
Categories	Frequency
ICT	5
Design or creative media	3
Bio tech	3
Food and medical	4
Manufacturing	1
Environmental or conservation	1

Source: NZVIF Ltd, MED interviews with venture capital funds

MED know of one more venture capital fund outside of the VIF.

The composition of the limited partners, or passive investors, in the venture capital funds in New Zealand differs from international norms, most noticeably through the absence of pension/superannuation funds (see figure 5.1(a)). This may reflect the newness and limited track record of New Zealand's venture capital funds relative to venture capital funds overseas. Investors in New Zealand funds include corporations (domestic and foreign), private investors (domestic and foreign), government (domestic and foreign) and financial institutions.

Figure 5.1(a)



Source: NZVIF Ltd, offshore based on empirical data from US, UK, Europe and Australia

Besides the venture capital funds currently operating in the market, as discussed in section 4.5 there are five prospective funds that are seeking VIF capital. Three have been through NZVIF Ltd due diligence processes and have received VIF conditional commitments. These funds are currently raising capital. Other funds are still working through NZVIF Ltd's selection process.

MED are unsure exactly how many venture capitalists exist in New Zealand who operate on a less formal basis to venture capital funds. These investors typically invest from their own balance sheet, as opposed to raising and managing third party capital. NZVIF Ltd estimate that there are up to ten such investors. One example of this type of investor is Sir Stephen Tindall who, in 2009, was appointed the first ever Arch Angel of New Zealand for his contribution to the sector. The Angel Association of New Zealand report that Stephen has invested over $150 million in seed and venture capital activities, both directly and through a fund of funds, supporting just over 100 New Zealand companies.

The resources of overseas venture capitalists also form part of the venture capital market in New Zealand. Overseas venture capitalists invest in New Zealand businesses either directly, via syndicating with a New Zealand venture capital fund, or operating independently in the New Zealand market. Examples of overseas venture capital funds investing in New Zealand companies are GBS Venture Partners, Sequoia and Inventages.

5.2 Industry data

As with other types of deals in the PE markets, venture capital transactions are not required to be publicly disclosed. Therefore accurately defining the market by the number of venture capitalists and investment activity is not straightforward. One source of information on the size of the New Zealand venture capital market (and the wider PE market) is The New Zealand Private Equity and Venture Capital Monitor (the Monitor). The Monitor is produced jointly by the NZVCA and Ernst & Young and has been published annually since 2002.[51]

The primary method of data collection for the Monitor is a survey of NZVCA members. The survey relies on individuals' interpretation of questions and their own assessment of their investment decisions. Therefore, in MED's opinion, there may be inconsistency between survey responses. For example, respondents may report separate investments in the same company (i.e. an initial investment, further tranches and follow-on investments) as one investment. Alternatively, respondents may report the investments dispensed to one company as separate investments. What constitutes an investment stage is also open to interpretation by survey respondents.[52]

While the sample size and response rate for the survey varies over time, it is fairly consistent for venture capital. In 2008 15 survey responses were received versus 18 survey responses in 2002.

The Monitor includes investment activity of community trusts[53], angel investors, offshore venture capital funds and hybrid investors (i.e. those with a mix of angel and venture capital investment) in its data for the venture capital industry. As a result, industry data may overstate the level of venture capital investment. The survey data reported in the

[51] From 2002 to 2006 the New Zealand Private Equity and Venture Capital Monitor was called the NZ Venture Capital Monitor.

[52] There are three issues in this regard. (1) While we assume that the investment stage definitions used by respondents correspond to those used by NZVIF Ltd and which appear in Appendix 12.2, we understand from NZVIF Ltd that it can often be difficult to accurately classify what stage a company is at. (2) We do not know how investments to a company beyond the initial commitment are classified within the Monitor. For example, follow-on investments could be classified according to the stage at which the company was when they first received investment, or the stage at which they appear to be at the time of follow-on investment. (3) When a venture capital investment is divested it is unclear whether the sale proceeds are attributed to venture capital, or a later-stage PE investment.

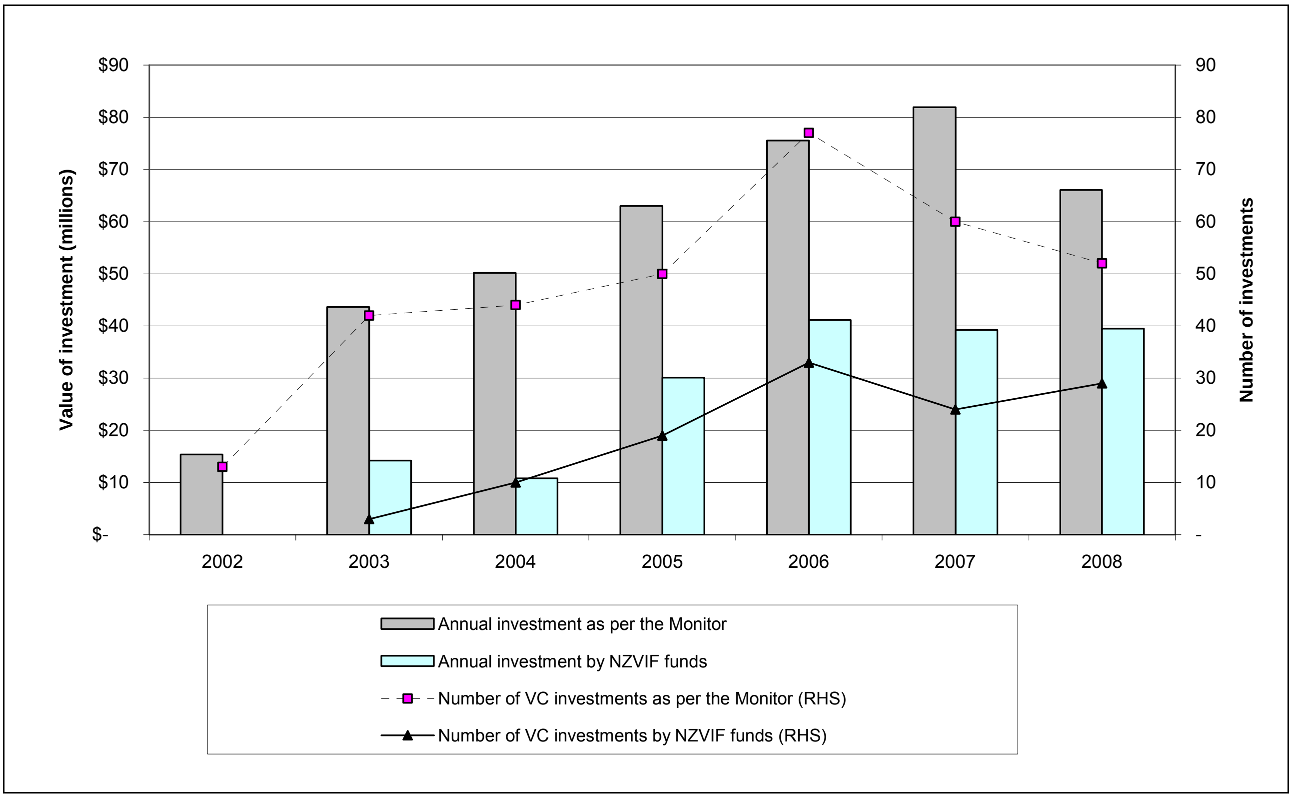
[53] Although some community trusts can be classified as venture capitalists, others are more likely to operate at the PE end of the investment spectrum.

Monitor is supplemented by publicly announced information, usually at the higher end of PE deals such as buyouts.

In figure 5.2(a) venture capital data from the Monitor is presented alongside data on investments made by the venture capital funds in which NZVIF Ltd has invested. All data are annual flows. NZVIF Ltd has provided data to mirror that reported in the Monitor – the number of investments and value of investments include both investment into new companies and follow-on investment into existing investee companies. While MED do not know what proportion of NZVIF Ltd activity is captured in the Monitor, it is clear that both datasets exhibit similar trends.

Data from the Monitor indicates that the total value of venture capital investments steadily grew from 2002 to 2007 and then decreased in 2008 by 19 percent. It is noted in the Monitor that this drop in investment values reflects a reduction in deal volumes. Prior to 2008 the overall value of venture capital investment according to the Monitor was increasing at a slightly higher rate than the value of venture capital investment according to NZVIF Ltd. However, as noted above, the inclusion of data from other players such as angel investors could account for some of this difference. In 2008 VIF venture capital funds made up 60 percent of the overall value of deals in the venture capital market.

Figure 5.2(a) Venture capital activity

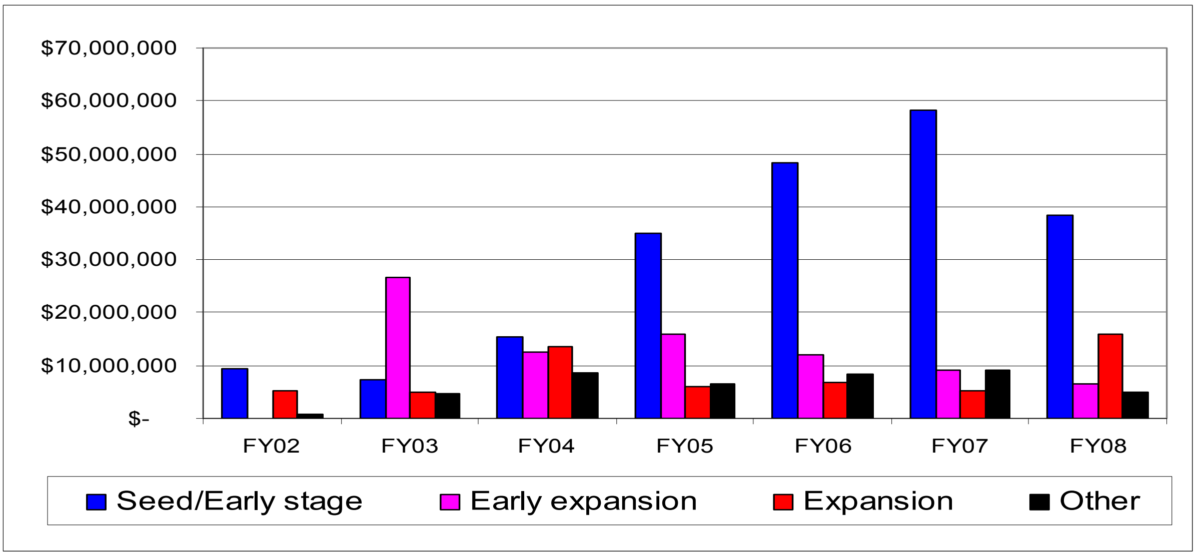


Source: The Monitor, March financial years, NZVIF Ltd, June years.

According to Monitor data divestments in the venture capital industry occurred in 2005 (one deal), 2006 (four deals) and 2007 (three deals) financial years and were respectively valued at $1.8 million, $2.1 million and $10 million. There was one divestment in 2008, however the value of this deal was not reported. In comparison, two divestments were reported in the annual reports of NZVIF Ltd, one in 2006 at $3.6 million and another in 2007 valued at $0.8 million. As the first four VIF venture capital funds approach the latter period of their ten year life the value of divestment will be a critical indicator of the development of the venture capital market and performance of the participants.

In figure 5.2(b) venture capital value data from the Monitor is broken down by investment stage. According to this data the value of seed/early stage venture capital investments demonstrated strong growth from 2002 to 2007 with an equivalent annual growth rate of 43.9 percent. In MED's view this result both reflects the focus of the VIF on these types of companies as well as the introduction of the SCIF, government intervention in the angel investment market. The SCIF is specifically targeted at seed and early-stage investment and has been well received in the market.

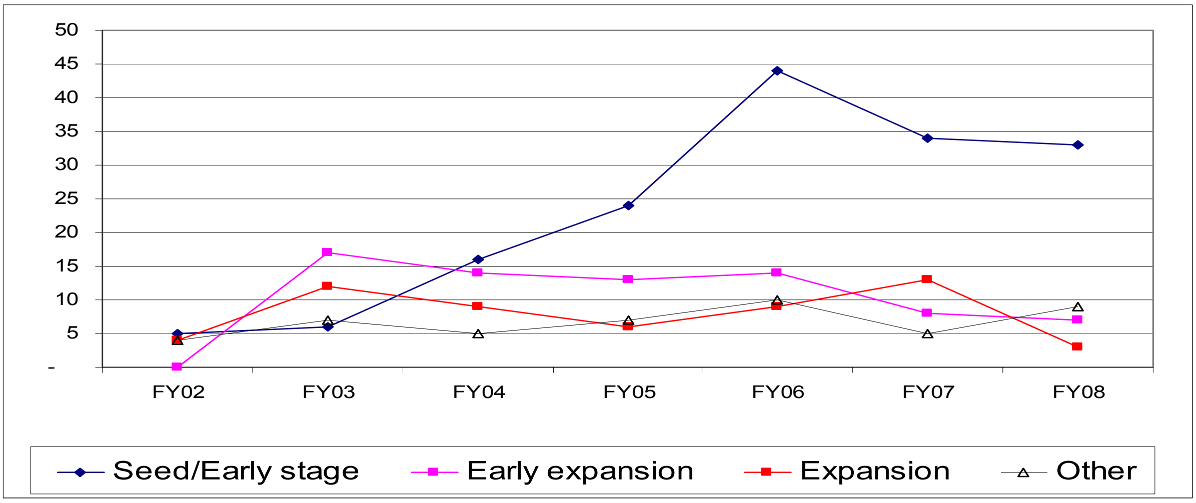
Figure 5.2(b) Value of investments by stage



Source: the Monitor, March financial years
*Other includes loans, mature, turnaround/replacement and unallocated investments.

In regards to the other stages of investment, values for early expansion venture capital investment exhibited an opposite trend and trended down over the period. This result is in line with the number of deals at this stage (refer to figure 5.2(c)). The value of the expansion deals, on the other hand, has been variable and often moved in the opposite direction to the number of deals. Despite the drop in seed/early stage values seen in 2008, the number of investments in this category remained fairly constant.

Figure 5.2(c) Number of investments by stage



Source: the Monitor, March financial years
*Other includes loans, mature, turnaround/replacement and unallocated investments.

5.3 Market perspectives

The perspectives presented in this section represent the views of stakeholders in the venture capital industry, including private venture capital fund managers. For details of those interviewed and the issues explored, refer to Appendix 12.1.

Although New Zealand's venture capital industry has developed rapidly over the last seven years, it is still regarded as being in its infancy. One stakeholder suggested that venture capital is still only a third of the way through its development in New Zealand. It is important that current venture capital activity is maintained and built upon, both through more skilled investors in the market and venture capital funds making investments.

The strongest theme to come through from the interviews was that New Zealand's venture capital industry needs to demonstrate track record and adequate returns on investment. Without these the industry may struggle to retain current investors and attract new investors. To date, there has been limited evidence that the returns of venture capital funds have been commensurate with the risks involved, though the VIF is currently in its sixth year of investment in the first four funds.

A consistent theme from the interviews was that the existing venture capital funds in New Zealand are too small.[54] This issue has created a number of challenges for fund managers including:

- balancing the financial support that they could provide to companies with investing across a sufficient number of portfolio companies to spread investment risk;
- the cost of due diligence relative to the size of their fund; and

[54] Fund size is not limited by NZVIF Ltd. Therefore, the current fund sizes reflect the environment for raising capital in New Zealand and the experience and reputation of the fund managers involved.

- the ability to attract quality fund managers (management fees are based upon the size of a fund)

Market stakeholders suggest that, at a minimum, venture capital funds in New Zealand should be $50-$60 million. (Overseas experience suggests that this may be too small. According to a recent study undertaken for the BVCA and NESTA in the UK[55] research on relative fund performance indicates that funds smaller than £50 million - around NZ$ 110 million – are vulnerable to commercial failure). Overall the venture capital market is seen as more collaborative than competitive and the small size of funds appears to drive syndication of deals.

Venture capital fund managers are likely to struggle to gain further support from financial institutions. In addition to the concerns mentioned above (which were mentioned by institutional players), financial institutions will be rebalancing their portfolios. The recent financial crisis has resulted in most financial institutions being overweight in illiquid PE assets as the relative values of their equity and property investments have fallen.

5.4 International comparisons

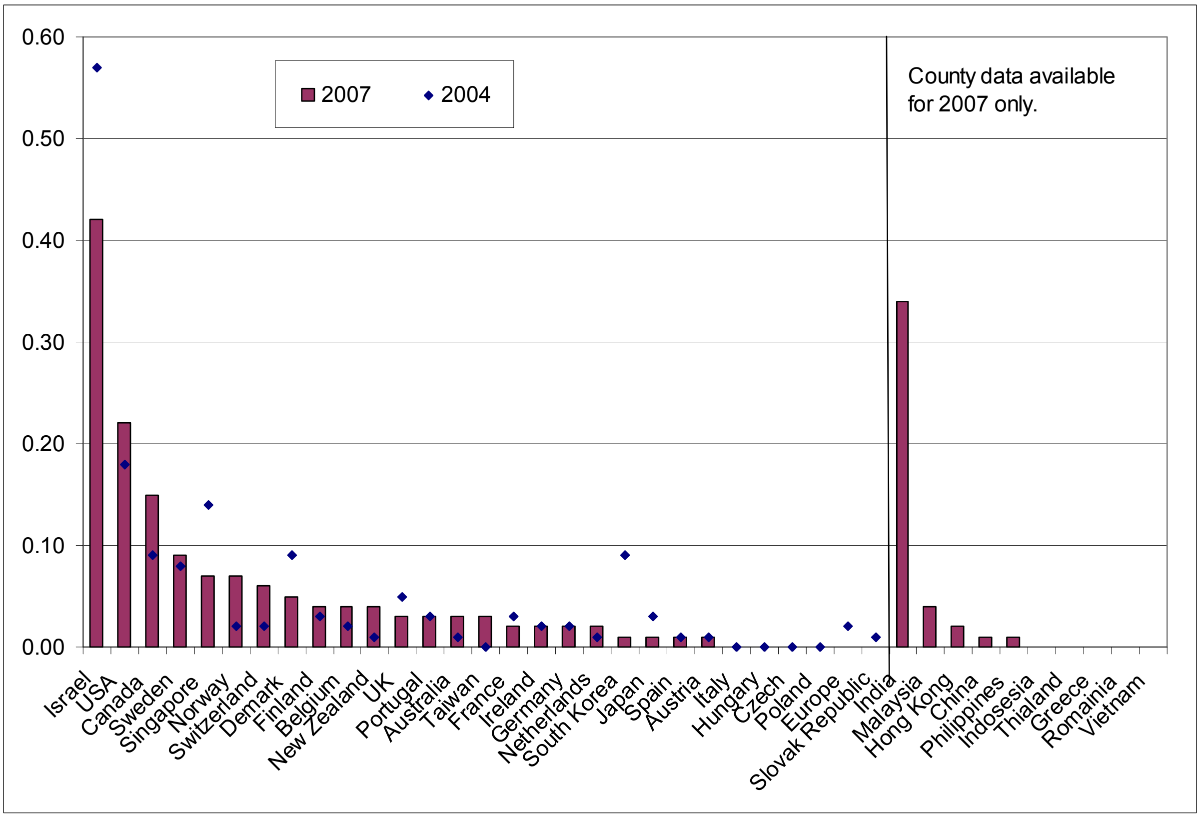
In this section a brief comparison of New Zealand's venture capital market with other countries is provided. Data is drawn from the Organisation for Economic Co-operation and Development (OECD)[56] (the OECD use the Monitor as their information source for New Zealand), the Australian Bureau of Statistics, and Statistics New Zealand. For a fuller discussion and comparison of venture capital in other countries refer to Lerner et al (2005).

Country trends in venture capital as a percentage of GDP are shown in figure 5.4(a). From 2004 to 2007 New Zealand's venture capital investment as a percentage of GDP has increased from 0.01% to 0.04% moving from 19th to 12th in the OECD rankings. New Zealand is ahead of Australia and the UK and equal with Finland and Belgium.

[55] From funding gaps to thin markets. UK Government support for early-stage venture capital; Nightingale et al, September 2009

[56] Refer to OECD Science, Technology and Industry Scoreboard 2005, 2007 and 2009.

Figure 5.4(a) Trends in venture capital investment as a percentage of GDP



Source: OECD Science, Technology and Industry Scoreboard 2007 and 2009

Our increase in ranking is consistent with the strong growth seen in the New Zealand venture capital market up until 2007, where it peaked at $82 million (as per the Monitor). The next OECD report in 2011 will be interesting in that it will show how venture capital markets around the world have weathered the financial crisis.

The OECD rankings for 2005 are shown in figures 5.4(b) and 5.4(c) below. In that year the OECD ranked New Zealand 20th in venture capital investment as a percentage of GDP. In terms of share of investment in high-technology sectors New Zealand was ranked 17th (approximately 28 percent of our venture capital was invested in this sector). In comparison, the United Kingdom was ranked third for venture capital investment as a percentage of GDP and 16th for the share of investment in high-technology sectors.

Figure 5.4(b)

Venture capital investment, 2005 or latest available year

As a percentage of GDP

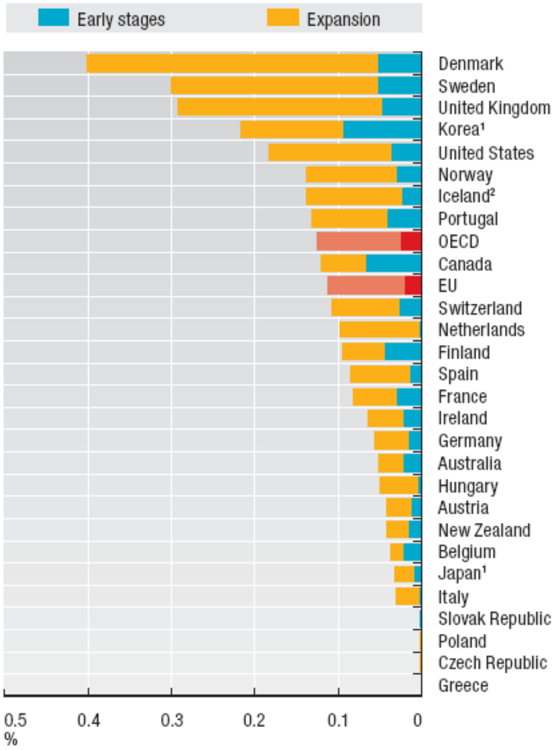
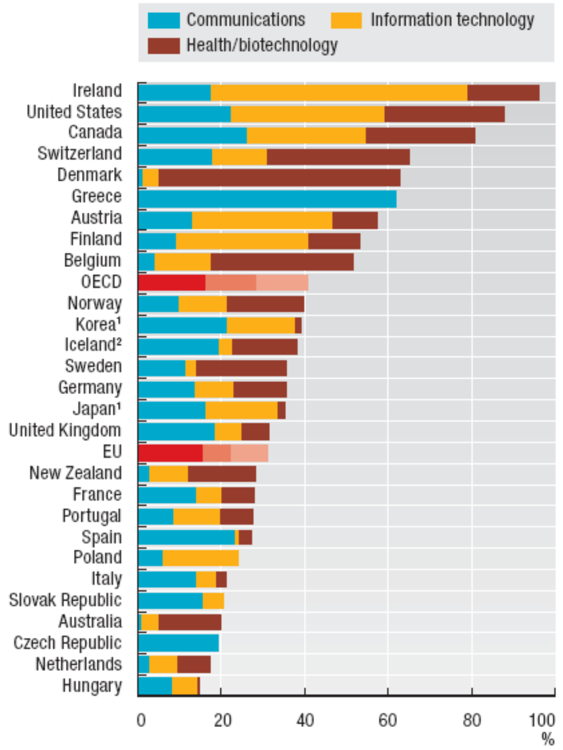


Figure 5.4(c)

Share of high-technology sectors in total venture capital, 2005 or latest available year

As a percentage of total venture capital investment[3]



Source: OECD Science, Technology and Industry Scoreboard 2007 and 2009

In table 5.4(a) New Zealand's venture capital is compared with that of Australia. Australia venture capital investment, by dollar value, is currently about six times the size of New Zealand's but, relative to GDP, New Zealand venture capital investment is of at least a comparable size. This result is all the more impressive given the relative lack of institutional funding in New Zealand.

The official statistics in Australia indicate that venture capital benefits not only from institutional finance but also large flows of expansion/later-stage finance. In Australia this type of finance is 7.4 times the size of early-stage finance.

Table 5.4(a): Venture capital in New Zealand and Australia

	New Zealand	Australia
GDP ($US)	$128,000 million	$1,010,000 million
VC ($US)	$262 million	$1,503 million
VC/GDP	0.20%	0.15%

Source: Australian Bureau of Statistics, Statistics New Zealand
New Zealand data is 2008 calendar year. Australia data is 2007 calendar year.

Meyer et al (2002) show that the sources of venture capital funds can differ significantly across countries. Venture capital investment patterns also differ across countries in terms of the stage, sector of financed companies and geographical focus of investments and appear to be related to the variations in funding sources.

PART TWO

EVALUATION FINDINGS AND CONCLUSIONS

6. Policy implementation

In Part Two of this report MED's evaluation findings and conclusions are presented. The policy expectations for the design of the VIF are detailed in section 4. In the following section the implementation of policy is evaluated, including a review of the processes that NZVIF Ltd have used to select and monitor VIF venture capital fund managers and an assessment of compliance with the operating principles established by Cabinet for the Fund. MED also note the market development initiatives undertaken by NZVIF Ltd under their mandate.

The essence of New Zealand's venture capital model is that the government agent (NZVIF Ltd) is tasked with accelerating the development of the venture capital market in New Zealand. It is predominantly expected to do this by encouraging the entry of private sector venture capital fund managers and private investors into the market by investing Crown capital into private sector venture capital funds on favourable terms for investors in the funds (i.e. matching capital and the mid-term buy-out option). Once the capital is committed and the fund established and active then the government agent's role is that of a passive investor. It has a role in managing the Crown's investment, through fund establishment and ongoing monitoring to ensure compliance to the Crown's mandate. Day to day fund administration and investment reporting is also a core responsibility of NZVIF Ltd to ensure "no surprises" for shareholding Ministers.

6.1 The selection and due diligence of fund managers

The process for determining whether a private sector venture capital fund manager should be allocated VIF capital involves the fund manager undergoing a full due diligence process. Currently this due diligence process is undertaken by the team at NZVIF Ltd. According to the foundation policy papers underpinning the VIF, private sector venture capital fund managers are selected by NZVIF Ltd on the basis of:

- commercial merit, as judged by their ability to raise private-sector co-investment funds and credentials in business management and management of venture capital funds; and
- provided commercial merit has been met, the degree to which the fund management structures and investment strategies they propose to use will contribute to the goals of the scheme.

It was originally envisaged that the market would play an important role in signalling the private sector venture capital funds that NZVIF Ltd should invest with. Private sector fund managers were not able to approach NZVIF Ltd for investment unless they had already secured capital commitments from private sector investors. The securing of such investor commitments was seen to demonstrate that the venture capital fund manager was deemed credible by the private sector and that they backed their ability to make money for these investors. However, given that the development of the venture capital market in New Zealand was still very much in its infancy, it was difficult for private sector fund managers who had little or no track record to both raise the necessary private sector capital and to demonstrate their ability to manage a venture capital fund.

At first NZVIF Ltd followed the approach used in other government-sponsored venture capital programmes overseas and contracted substantial due diligence expertise from an internationally recognised and respected industry player. NZVIF Ltd used the services of

Wilshire Associates, a leading global independent investment consulting firm. (The Australian government venture capital programme has also used Wilshire Associates and now tenders out the contract. Most recently they used Barwon Investment Partners).

In essence, to speed up the development of the venture capital market, NZVIF Ltd underwrote the costs of due diligence and used this information as the basis for their decision to commit VIF capital to a venture capital fund manager. This, in effect, created a market signal around the capability of prospective fund managers which private sector investors could use to inform their decision making. Lerner et al (2005) note that government involvement in the due diligence of fund managers is desirable and efficient because other investors can free-ride on this information.

Since 2008, NZVIF Ltd have undertaken more of the work internally with some external review processes being maintained. NZVIF Ltd had been working alongside Wilshire for some time and had acquired knowledge about the due diligence process. According to NZVIF Ltd, as the number of applications to the VIF received at any one time declined, it became less cost effective to use the services of an independent due diligence specialist. NZVIF Ltd also believe that there is a strong market development case for strengthening their internal capability to undertake commercial assessments rather than relying on offshore private sector advisory services.

NZVIF Ltd views on the due diligence process:

Due diligence comprises both assessment of the venture capital capability of the fund manager as well as how well their proposal aligns with the policy objectives of the VIF programme. Both of these requirements are fully considered throughout the due diligence process.

In the early days of the programme NZVIF Ltd made a decision that it would be useful to engage Wilshire Associates, to provide third party expertise and also advise on best practise market terms and conditions. This was also part of NZVIF Ltd's market development brief, to engage early with the Australian investor market. This third party perspective was also useful in negotiating agreements with fund managers, at a time when there was limited local knowledge of best practise investment terms.

Over time, as NZVIF Ltd built up its own processes and gained greater market specific knowledge, the cost of third party validation, relative to the value add, could no longer be justified. This became stark at the time of the third venture capital round, when the quality and analysis within NZVIF Ltd's due diligence reports was such that there was little additional value provided through using a third party to review our due diligence reports.

NZVIF Ltd continues to have a strong professional relationship with Wilshire however, and we seek their advice and input on market terms and conditions as they pertain to venture capital funds from time to time. They also provided feedback on NZVIF Ltd due diligence reports, for the most recent venture capital round.

NZVIF Ltd continues to utilise an independent third party with venture capital due diligence experience, in all our venture capital manager selection processes. Furthermore, three separate Probity Audits of our due diligence process have been conducted by the Office of the Auditor General, including the most recent venture capital round.

As noted in section 4.5, in 2008 NZVIF Ltd also moved from holding application rounds to reviewing applications from prospective fund managers on a first come first served basis. While funding rounds have the advantage of greater transparency, NZVIF Ltd weighed this up against the view that fund managers should apply to the VIF when they are ready, rather than at a pre-determined timetable. It is NZVIF Ltd's view that they have sufficient market knowledge of what venture capital activity is in the pipeline to accept applications on an ad-hoc basis. As long as a fund meets certain minimum standards they are deemed investable by NZVIF Ltd. To date, NZVIF Ltd has not had to ration capital commitments and thus choose between prospective funds.

Given the limited funds now available for new investment via the VIF it is important that, going forward, both the application and due diligence processes enable comparisons to be made between prospective fund managers.

Interview feedback

All of the VIF venture capital fund managers that were familiar with the due diligence process conducted by Wilshire said that it had been rigorous and had given them credibility in the marketplace. Some fund managers noted that having an internationally recognised and respected global investment consulting firm giving their imprimatur had been an invaluable tool in their efforts to attract private sector investors. NZVIF Ltd's in-house due diligence processes were also reported as being thorough.

Policy considerations

Placing greater reliance on the in-house component of the due diligence function has implications for policy effectiveness that were not considered nor specified when the policy was established.

- An internationally recognised and independent global investment management services firm such as Wilshire Associates provides a large degree of market credibility and independence. Prospective venture capital fund managers can leverage off of the implied accreditation they receive after undergoing and meeting the due diligence criteria to help them raise private sector investor capital.

- A consistent theme of the interviews was the need to encourage and facilitate better international connections and to attract institutional capital. Due diligence by an independent firm that also conducts due diligence on behalf of institutional investors will arguably have greater credibility and provide better access to international and domestic investor networks. Independent investment advisors have a large degree of reputational risk associated with their due diligence and subsequent recommendations.

- The venture capital industry in New Zealand is small, interconnected and personal. NZVIF Ltd, because of the quantity of capital they have for investment and the role they have been tasked with, naturally tend to have a central role in the industry. This is not a criticism in itself of NZVIF Ltd. However, from a policy perspective we should be looking for ways for government to be actively managing itself out of this position of influence and seeking to exit. This objective is undermined if NZVIF Ltd is the main provider of due diligence services.

- One of the defining features of the VIF model is that it takes its cues regarding investment decisions from the market. This keeps the investment decision making at arm's length from government and in the hands of those who are best equipped and have the most at risk – whether it be reputation or capital. This is the private sector investors and fund managers. NZVIF Ltd is not risking their own capital and they do not have to maximise a return. Their objective is to build a cadre of venture capital fund managers. By undertaking the due diligence and then becoming a cornerstone investor NZVIF Ltd may be seen as leading the market rather than taking its cues from the market. It also starts to blur the lines between a Cabinet mandated 'arms length' approach and being a market participant.

MED concludes that the value of external accreditation through due diligence to new fund managers has been significant, and will remain important until the track record of management teams has been established. It is likely that these benefits will exceed any cost savings from carrying out this function in-house. Government should be willing to continue to meet the costs of due diligence undertaken by firms with a global reputation.[57]

6.2 Negotiation and monitoring processes

Once NZVIF Ltd has committed to invest with a private sector venture capital fund investment terms are agreed with the fund manager and a contract is negotiated. In this process, consideration is given to the overall structure and investment strategy of the fund concerned to ensure that it meets the requirements of the VIF programme. NZVIF Ltd investment is then dependent upon the VIF venture capital fund raising the necessary matching private capital. NZVIF Ltd invests on the same terms as all other investors in the fund. Once investment terms have been agreed by NZVIF Ltd and private investors, NZVIF Ltd establishes reporting systems to monitor the individual funds and is responsible for managing the Crown's investment with each fund manager. These activities cover. investor governance, quarterly reporting reviews, eligibility conditions, one-off investment related decisions (although NZVIF Ltd must remain at arm's length from all investment decisions), conflicts of interest etc.

Interview feedback

The fund managers that responded were comfortable with NZVIF Ltd's negotiation process over terms and governance even though most noted that the process could be lengthy owing to the level of detail required to ensure Crown requirements are met. NZVIF Ltd's investor documentation was comprehensive, reflecting these Crown's requirements as well as industry standard terms and conditions.

There was a favourable response from the fund managers on NZVIF Ltd's monitoring of their activities, which is done on a quarterly basis. NZVIF Ltd actively engages with fund

[57] Josh Lerner in his book Boulevard of Broken Dreams notes the following: "NZVIF Ltd's decision to invest in a fund is made following completion of an extensive selection and due diligence process, undertaken by the fund manager, to determine whether the fund proposal is "investment grade". The initial screening is done by staff, followed by an outside assessment by an independent specialist private equity advisor. A standard methodology and fixed criteria are used to assess and rank all applications. In many cases, the staff work actively with teams of would-be venture fund managers to help them make their proposals more attractive (for instance, helping them identify prospective additional individuals who can contribute needed experience). This is necessitated by the limited supply of New Zealand-based funds. Following the completion of external due diligence, the NZVIF Ltd Board selects those applicants with whom it wishes to negotiate investment terms."

managers over the performance of investee companies and a fund's overall performance. NZVIF Ltd is responsive, open and constructive in their monitoring. Reporting systems are also good.

6.3 Operating principles

The operating principles for the VIF, established by Cabinet were detailed in section 4.3. In summary, NZVIF Ltd was to co-invest on pre-determined ratios with private investors in funds that target New Zealand-based companies and that these funds were to be managed by approved fund managers. NZVIF Ltd investment was not to exceed $25 million in any one fund. Initial plus follow-on investment into any one company by a fund was not to exceed 15 percent without prior notification to stakeholder Ministers, at which point follow-on investment could extend the limit to 20 percent. The VIF venture capital funds can exercise an option to buy out NZVIF Ltd's investment at a cost that refunds the Crown's capital plus interest at any stage up to the mid-point (typically five years) in the life of a fund.

On the whole the operating principles set out for the VIF have been adhered to although interpretation has led to some differences of opinion. Specific aspects are discussed below.

Interview feedback

Although four fund managers had differences of opinion with NZVIF Ltd over operational issues, all were resolved.

6.3.1 Fund structures

The funds in which NZVIF Ltd has invested in are intended to operate for ten years and on termination return proceeds to investors. However, as investments are not liquid assets, there could be variations around this endpoint subject to market conditions and opportunities for exit specific to each fund.

As noted in section 5.1 in some cases NZVIF Ltd have invested into funds that have a wider investment mandate than that of the VIF. Where this has occurred, NZVIF Ltd investment via the VIF and associated matching private investment is ring-fenced and targeted at companies that fall within the parameters of their investment mandate.

While NZVIF Ltd has kept investment in individual funds within the $25 million limit set out by Cabinet, NZVIF Ltd has allowed flexibility around the size of its investment. On five occasions (see table 4.5(b)) VIF venture capital fund managers have either raised additional capital or transferred additional capital into their VIF fund and NZVIF Ltd has agreed to match this increase. There appear to be no policy implications from this when the increase in investment has occurred within the first year of the fund actively investing. However, while within the mandate, it is unclear what the benefits are of NZVIF Ltd subsequently committing more funds to a VIF venture capital fund in later years if these funds are no longer making new investments[58]. To reiterate the policy objective of NZVIF

[58] Specifically, we refer to TMT Ventures which had $15 million committed to it by NZVIF Ltd in 2002. TMT made its first acquisition in 2002. In 2007 (year five of the fund) NZVIF Ltd increased its capital commitment to TMT to $18 million. In 2009 (year seven of the fund) NZVIF increased its capital commitment to $21

Ltd – it is to catalyse new investment, not underwrite existing investment. If a fund is also accessing the Annex Fund then it has taken more capital out of circulation that could have been used to attract new funds into the market.

MED suggests that further thought be given to investment commitments being structured so that after a fund has fully closed, there is no recourse at a later date for the VIF venture capital funds to come back and demand a greater contribution of VIF capital. This would allow for greater certainty for NZVIF Ltd in forecasting their likely drawdown of capital and would drive VIF venture capital funds to where the policy rationale dictates the greatest need, i.e. at helping secure the establishment of a fund. This is especially pertinent at a time of increasing pressure on public resources.

6.3.2 Investment contribution ratios

The first five VIF funds became operational at a time when Crown investment was limited to early-stage investments (seed, start-up and early expansion) on a 1:2 basis (with capacity to go to a 45 percent share – NZVIF Ltd did not exercise this at the time because it was not required). One fund – Pioneer's New Zealand Innovation Fund - became operational after October 2006, when later-stage investments became possible and investment ratios were to vary depending upon the stage of investment (refer to section 4.3.2 for a history of these changes).

The portfolio mix of the funds is both a question for investors and government policy because they determine both the size of investment and the risk of that investment (e.g. exposure/concentration).

While the current mandate for the VIF allows for variable investment ratios, in practice NZVIF Ltd determines an overall Crown to private sector investment ratio for each fund. The matching ratio is negotiated individually with each private sector venture capital fund manager and reflects the fund's investment strategy and levels of investment intended to be made at particular stages. For example a fund that is focussed on making only seed and start-up investments can be matched 1:1. A fund that is making half of its investments at seed and start-up and half at early expansion can be matched 1: 1.5 and so forth. The variable investment ratios are embedded in the investment contract and the overall investment ratio applied to a fund depends on the amount of total (i.e. Crown and private sector) investment to be made at each investment stage.

An example is set out below. NZVIF Ltd agrees to invest with a Fund on the basis of $1 for every $1.80 of private investment. The agreed portfolio split between the different stages of investment could have looked something like the one presented in Table 6.3(a). What matters is the total amount of funding at each investment stage. Any difference in funding source at a particular stage is offset by differences in funding source at other stages.

million. In addition, TMT Ventures has also been given access to the Annex Fund, thus providing it with a further $4-5 million. This is at least $10 million of Crown capital that could have been used to establish additional venture capital funds. It is also unclear as to whether the additional capital provided by the VIF went to fund expansion of a business or cash out existing shareholders.

Table 6.3(a): Hypothetical portfolio of a private sector venture capital fund

Business stage	Crown to private sector investment ratio	Investment if in strict accordance with mandated investment ratios		Agreed total Investment	*Example actual investment*	
		NZVIF Ltd invests	Private sector invests		*NZVIF Ltd*	*Private*
seed and start up	1:1	12.9	12.9	**25.8**	*8.0*	*17.8*
early expansion	1:2	7.3	14.7	**21.9**	*10.0*	*11.9*
Expansion	1:4	2.7	11.0	**13.7**	*3.8*	*9.9*
late expansion	1:5	0.8	4.2	**5.0**	*2.0*	*3.0*
Pre-determined investment ratio	**1:1.8**	**23.8**	**42.7**	**66.4**	***23.8***	***42.6***

Source: MED calculations
Totals may not add due to rounding

NZVIF Ltd monitors to ensure that agreed investment totals and the portfolio split are adhered to over time. If an agreed investment ratio comes near to a tipping point, NZVIF Ltd can enforce actions which include ceasing or changing investments and clawing back investment and management fees.

While it is acknowledged that VIF venture capital fund managers who raised capital prior to October 2006 have raised capital on less favourable terms than they could now, these fund managers can establish new funds under the revised mandate.

Interview feedback

A sliding scale of investment ratios based on a company's stage of development was considered appropriate by all but one of the VIF venture fund managers, as they believe it reflects the degree of difficulty in investing at each stage. The fund manager that did not agree with the sliding scale felt that an investment ratio of 1:1 is the only sensible ratio to encourage investment and that having a sliding scale adds unnecessary complexity.

Although in favour of the sliding scale, two of the fund managers felt that the extension to late expansion with a 1:5 ratio wasn't required. Furthermore one of these fund managers also felt that assistance at the expansion stage was not required as a company should be able to get funding if the financial position of a firm is sound. In contrast one fund manager wanted the 1:2 ratio maintained through to expansion.

Providing support across the existing stages of company development was also seen to be appropriate by six other market participants, but they were less forthcoming about the level of support, with one believing the range was about right while another said the government should be involved in later expansion stages but at lesser ratios than currently allowed. As one respondent stated, it comes back to what the government is trying to achieve.

6.3.3 Investment stages

Individual fund managers determine what stage (i.e. seed, start-up, early expansion, expansion or late expansion) a company is at when they first invest in the company. If there is any doubt about a company's stage of development discussions are held with NZVIF Ltd, which forms a view on investment stage based on company revenues, number of employees, level of commercialisation, product development phase and other funding received.[59]

The most difficult decision appears to be between the early expansion and expansion phase. Both definitions (refer to Appendix 12.2) refer to the provision of capital for expanding a company. However, in the case of early expansion, the company is deemed to be unlikely to survive on any revenues made. For example, the company in question may only be earning market testing revenues.

From the survey of VIF investee companies MED was able to determine their age when they first received funding from a VIF venture capital fund and whether or not they were generating sales at that point. The results are presented in table 6.3(b). 45 percent of company respondents aged two years or younger were receiving revenue from sales when they first received funding from the VIF venture capital fund. This result increases to 67 percent of company respondents for companies aged from three to five years. While age is not directly correlated with company stage, these results may suggest that some of the 'early stage' company support provided via the VIF may have been provided to firms that were more established. The results for older companies are consistent with investing in companies with existing track records.

Table 6.3(b): Portfolio company age and sales generation when first receiving venture capital funding

Age range	Age when first received VC funding – number of companies	Percentage of companies generating sales when first received VC funding.
0-2 years	11	45%
3-5 years	6	67%
6-8 years	4	100%
9+ years	5	100%
Total	**26**	**69%**

Source: MED survey of VIF investee companies

MED is not aware of any breaches in the implementation of the mandate and the preceding paragraphs are not intended to imply this. However, the purpose of the above table is to demonstrate that several of the companies invested in are generating sales so, therefore, have a proven, marketable product. Arguably, this should provide sufficient proof of concept for the private market to be able to make an informed investment decision on.

As noted in section 4.3.2 private sector venture capital funds joining the VIF from October 2006 are able to invest in expansion stage companies. The idea behind widening the investment focus from early stage to expansion stage was to increase the incentive of the private sector to invest in the VIF and to enable the establishment of larger new VIF venture capital funds.

[59] NZVIF Ltd has a governance role in ensuring public funds are allocated to activities for which they are intended. In terms of investment into the various stages NZVIF Ltd is not aware of any willful breach of mandate by fund managers. NZVIF Ltd documents all "borderline" investments and their basis for rejecting them or otherwise.

Only one private sector venture capital fund has joined the VIF since 2006. An example of an expansion investment this fund has undertaken has been into a company that is 16 years old, has 330 employees and revenue of around $60 million. While permitted under the current operating rules, in such a case it is difficult to see that investment of Crown capital in this company is going to where the greatest need is. MED would argue that, in times of scarce Crown capital, the VIF capital should go to support investment in the area of the market where there is the greatest market failure, i.e. seed, start-up and early expansion.

As set out in section 3, the rationale for government involvement is significantly stronger at seed and start-up stages where spillover benefits and the difficulty of assessment of commercial possibilities are most apparent. Various studies also note the tendency of similar programmes providing government support to move towards later-stage funding. This is because commercial risks decline, it is felt better returns to government funding can be achieved, and because fund managers come to find this end of the market easier and more profitable.

Another area identified in the course of the evaluation as requiring greater clarity and direction is around ensuring that the Crown capital invested through VIF is directed to new business activity and does not become ‘rescue capital’ for debt replacement or simply allow entrepreneurs and earlier investors to ‘cash out’. In the Cabinet papers underpinning the establishment of VIF, the following definitions as to what investment should be for were stated as follows:

- Seed-stage investment enables development, testing and preparation of a product or service to the point where it is feasible to start business operations;
- Start-up investment enables actual business operations to get underway[60]; and
- Early-expansion investment provides capital for initial manufacturing and marketing where the enterprise is still cash flow negative.[61]

MED’s interpretation is that there is a clear intent that the VIF should provide additionality and be utilised to fund business growth. This is consistent with the underlying policy rationale for government intervention and MED would encourage NZVIF Ltd to maintain vigilance in ensuring that this policy remains adhered to.

MED recommends that future use of VIF capital be re-orientated towards early-stage activity (in particular seed and start-up companies) and that Crown capital be used to fund business growth.

6.3.4 Investment process

As required by Cabinet, NZVIF Ltd does not participate in the investment decisions made by the VIF venture capital funds. However, like other private investors, the funds that

[60] Cab POL (01) 80 refers.

[61] CAB (POL) Nov 14.

NZVIF Ltd commit to a fund are not drawn down until the fund manager requires the funds for investment. At such a point fund managers make a 'call on funds' to investors. In the case of NZVIF Ltd there is also an additional stage - NZVIF Ltd have to make a call on funds to the Crown as the capital is not held by NZVIF Ltd.

In regards to investment in individual companies, the NZVIF Ltd Board has not always provided advance written notification to shareholder ministers that the 15 percent limit was going to be exceeded. Rather, the Board has provided a report at the next practical time. NZVIF Ltd note that it is not always feasible to provide advanced written notification of such shareholding increases as they are subject to the approval of all investors.

According to policy documents underpinning the VIF, the Board of NZVIF Ltd has the discretion to increase investment into a company up to 20 percent (and thereby, by implication, also to choose not to do so). This raises the issue of whether the agreements with VIF venture capital funds would grant the Board this power, given that NZVIF Ltd does not own a controlling share of a fund and that most of the funds were set up prior to this discretion being given.

Initially restricting investment into any one company to a maximum of 15 percent of a fund was intended to encourage fund managers to adopt broad investment portfolios. The decision to allow follow-on investment so that the overall share in any one portfolio business could reach up to 20 percent of a fund was made to enhance flexibility and be in line with industry best practice. However, at the time it was noted that it could also raise the risk profile of a fund. In reality, the operating rules of the VIF limit NZVIF Ltd's investment in any one company to $5 million. Also, the 20 percent limit allows funds to continue to support the companies in their portfolio that they have judged as more likely to succeed.

The pressure to move to a 20 percent limit per VIF venture capital fund portfolio company may grow as the VIF venture capital funds mature and poorly performing investments drop out. Some degree of concentration is an inevitable consequence of a maturing and successful fund. NZVIF Ltd notes the risk that it faces is in second guessing and trying to control these investment decisions, rather than letting the market and private investors drive this.

There has been one instance where the 20 percent exposure limit has been exceeded. Shareholding Ministers approved this investment on an exceptional basis.[62]

All businesses that NZVIF Ltd has invested in have had the majority of their assets and employees located in New Zealand at the time of the initial investments, as required by the mandate.[63] A number of these entities have established themselves as offshore entities and have significant offshore presence and activities as was expected.

[62] According to background papers, NZVIF Ltd's exposure to one company was to increase to 23.5 percent.

[63] There are cases where, in order to obtain foreign venture capital investment, a business needs to be registered overseas. However, in such cases the research and IP for the business are generated in New Zealand.

6.3.5 Buyout clause

The buyout clause has been exercised in one instance.[64] On this occasion the buyout allowed investors to close a fund one year after it became operational. The option to exercise the buyout clause has now expired for all but two of the current funds.

According to policy papers underpinning the VIF, the buyout clause was designed as an incentive for private sector investors to participate in the programme. At the midpoint of a fund private sector investors are able to buy out NZVIF Ltd's investment at its original value plus interest (calculated as the yield on the five year government bond rate). Investors can then realise the value of this shareholding in the market when their fund terminates. This combination of purchase offer plus the opportunity for a greater share of final gains is, in effect, a conditional subsidy offered by the Crown to offset the risks associated with venture capital investment.

If NZVIF Ltd's investment has not been bought out before the mid point of the term of a private sector venture capital fund it will take a pro-rata share of the net proceeds of the fund (including losses, if these have occurred) in the same manner as all other investors when the fund terminates.

The buyout option was closely modelled on Israel's Yozma venture capital programme. As discussed in section 2 there were a number of significant factors that coalesced to ensure the success of the Yozma funds. This success led to nine out of ten of the funds in the Yozma venture capital programme exercising their buyout option.[65]

The fact that the VIF buyout option has not been exercised in four of the funds suggests that the private investors had insufficient confidence that their fund's rate of return at termination will be sufficient and certain enough (i.e. the return is not expected to be greater than their own marginal cost of capital). It may also suggest that there was not enough private sector capital to replace VIF capital (either due to supply constraints or a lack of confidence in existing fund investments). If these funds had exercised the buyout option MED estimates that approximately $53.1 million (capital plus interest) would have been released to the NZVIF Ltd for future investment into other venture capital funds.

Interview feedback

Half of the current fund managers thought that the buyout option should be extended. Suggestions included six or seven years. One fund manager noted that the exit time has lengthened to eight years in the U.S. Another possibility is to have a sliding scale for the buyout option relative to the stage of investment (e.g. a shorter buyout option for later-stage investments and a longer buyout period for early-stage investments).

One fund manager actively pitched the NZVIF Ltd capital contribution with the buyout clause as a unique selling point to attract investors into their fund.

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[64] All investors, both New Zealand and foreign have access to the buyout clause.

[65] Refer to http://ifise.unipv.it/Convegno/The%20Yozma%20progr%20-%20Erlich.ppt#284,10,Slide 10.

Issues

It is possible that the buyout offer as currently defined will become more of an incentive for investors as New Zealand's venture capital market develops and fund managers' experience, skills and capabilities grow. So far the buyout option has not been attractive to fund managers and their investors. This raises questions about both its current design and a possible lack of confidence in investment returns over the life of the funds.

MED suggests that consideration be given to extending the period over which a buyout option may be exercised, as well as relating the length of this period to the stage of investment when initial investments were made (i.e. at what ratio would VIF funding be available).

Other changes to the form of government subsidy should also be examined, including capping the upside for government at the end of fund life if options for buy-out are not exercised.

6.3.6 Extensions to the VIF: The Annex Fund

One of NZVIF Ltd's roles is to identify new investment products and/or changes to the mandate for the VIF that will facilitate the growth of the venture capital and early-stage investment market.[66] An example is the Annex Fund facility described in section 4.3.6. The Annex Fund supplements additional follow-on investment by the original four VIF venture capital funds that have fully allocated their initial capital.

The impetus for the Annex Fund came from NZVIF Ltd and its Board, in response to very difficult market conditions and approaches from fund managers. A number of VIF portfolio companies were making good progress and expanding into global markets, however, the venture capital fund managers had limited capacity to provide further capital support. The Annex Fund enables these fund managers to inject further capital into these companies, at a critical stage in their development when capital is scarce.

NZVIF Ltd consider that, in hindsight, the original VIF venture capital funds were too small and were being constrained in their ability to fund investee companies to a trade sale/IPO stage. The Annex Fund is, in effect, offering these fund managers further access to public funding not anticipated at the time of the establishment of the funds.

The parameters of the Annex Fund are consistent with the mandate for the VIF. The Annex Fund can be seen as a pragmatic response to a dramatic deterioration in the availability of capital, akin to the government's early 2009 Small and Medium Enterprise (SME) Support Package, and a more structured approach to previous ad-hoc follow-on funding. It could be argued that companies that, in "normal" times would have anticipated further support from PE, a trade sale or perhaps an IPO, are being given a lifeline.

The Annex Fund is also likely to be short-term, with a re-assessment due at end of 2009.

[66] As noted in the 2009 Output Plan between NZVIF Ltd and the Minister for Economic Development.

Nevertheless, there are some areas of concern:

- There is the possibility that VIF venture capital fund managers undertake Annex funding to avoid diluting their equity share in their portfolio companies. In such a situation, the Annex Fund would be seen to either crowd out existing market activity or circumvent the natural lifecycle of a venture capital fund (i.e. capital raising, closing a fund, investing capital, and then raising capital for another fund).

- If there is a demand from potential new private sector fund managers for Crown capital in excess of the original $160 million commitment, the Annex Fund facility could be seen to have reduced the capital available to them (in the absence of any new Crown capital and/or "recycled" capital from successful exits).

- NZVIF Ltd and its Board have a large degree of autonomy in deciding how to implement the mandate and achieve the goals of the VIF. NZVIF Ltd developed the Annex Fund without prior consultation with MED. MED was able to obtain sufficient information to advise the Minister only immediately prior to its introduction. It would have been preferable for NZVIF Ltd to discuss the initiative with MED (the agency with policy responsibility for the VIF) much earlier.

- Via the Annex Fund NZVIF Ltd co-invests with private sector investors on a 1:2 basis (i.e. the early-expansion funding ratio) and all investments are made in existing portfolio companies. NZVIF Ltd advises that, to date, with one exception, all Annex Fund investments have been in companies whose current stage of development is classified as early-stage (i.e. seed, start-up or early expansion).[67] However, in the future, it is possible that the actual stage that a company is at when they receive follow-on funding is 'later-stage'. In such cases, investment ratios of 1:4 or 1:5 should apply, rather than the 1:2 investment ratio.

By having access to the Annex Fund facility, fund managers have been able to raise further capital for portfolio companies and, when combined with other investors' capital, reach minimum subscription thresholds. Reaching a minimum subscription level is often a condition of other investors (e.g. Investor A is good for $2 million but only if $5 million is raised in total). To date this is the scenario where the Annex Fund is being called upon.

There is also a more general issue around follow-on funding. The main purpose of the VIF is to catalyse the development of the venture capital industry in New Zealand. There is no mandate to maximise the direct financial return from the Crown's capital investment.[68] Follow-on funding, even if offering the likelihood of higher returns, reduces the amount of Crown capital available for new VIF venture capital funds and blunts the incentives for existing fund managers to seek new private capital for follow-on investment and thus develop the market.

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[67] It is worth noting that in late July the ratio of private sector to Crown investment through the Annex Fund was 3.6:1, well in excess of the required 2:1 ratio.

[68] The return to the Crown's portfolio will depend on initial choices about the investment focus of the types of funds supported.

6.4 Market development initiatives

The primary tool for developing New Zealand's venture capital industry is intended to be NZVIF Ltd's investment with private sector venture capital funds. Inherently tied in with such investment is the creation of associated products, services and processes (e.g. investment term sheets). However, NZVIF Ltd has also been given a wider role to undertake market development initiatives. In 2006 this market development activity was given a separate budget by Cabinet ($200,000 per annum). NZVIF Ltd's roles in this regard have included assisting the development of an industry association (the NZVCA), promoting New Zealand's venture capital industry both domestically and internationally, and advising government on market development issues.

The wider areas of market development and the activities undertaken by NZVIF Ltd over time are noted in table 6.4(a). As shown, NZVIF Ltd has undertaken wider market development activities since early on in the programme. NZVIF Ltd notes that prior to 2006 such activities were: "Whatever we could manage in the time and budget we had. This was undertaken by NZVIF staff and the Board, often over and above day to day requirements."

Table 6.4(a) NZVIF Ltd's wider market development under the VIF

Area	Activity	2003	2004	2005	2006	2007	2008	2009
NZVCA Support	Sponsorship	✓	✓	✓	✓	✓	✓	✓
	Council membership			✓	✓	✓	✓	✓
Investor education	Conference presentations	✓	✓	✓	✓	✓	✓	✓
	Investor seminars					✓	✓	✓
	Targeted visits	✓	✓	✓	✓	✓	✓	✓
Regulatory/Tax	Submissions to government		✓	✓	✓	✓	✓	✓
	NZVCA subcommittee					✓	✓	✓
Investor documents	Standard term sheets/contracts	✓					✓	
Research/Market data	NZVCA monitor input	✓					✓	✓
	Surveys re intentions to invest in vc and barriers to vc investment		✓			✓		✓
Industry profile	Media articles	✓	✓	✓	✓	✓	✓	✓

Source: NZVIF Ltd

NZVIF Ltd sponsors the annual NZVCA conference, is a "platinum sponsor" of the NZVCA and provides input into the design of the NZ Venture Capital and Private Equity Monitor that is produced jointly between the NZVCA and Ernst & Young (refer to section 5.2). The CEO of NZVIF Ltd has also been a member of the NZVCA Council for five years and is currently chair.

NZVIF Ltd views on market development activities:

Many of NZVIF Ltd's market development activities, in respect of venture capital, are implemented in partnership with NZVCA. This has worked well where NZVIF Ltd has identified a specific market development need, NZVCA agrees, and addressing it is industry led.

NZVIF Ltd market development activities can range from the business as usual (seminars and presentations), through to substantial and long term initiatives (e.g. industry performance data, Limited Partnership legislation, valuation methodology, reporting standards). More recently, as the industry gets some runs on the board, market development has been more internationally focused and NZVIF Ltd's certification role has been important.

About $35,000 is allocated to third parties for market development. The rest is undertaken by NZVIF staff and contractors.

It is MED's view that the implementation of the VIF by NZVIF Ltd has brought rigour and professionalism to New Zealand's venture capital industry through underwriting of standard terms, agreements and contracts. Undoubtedly, associated professions such as lawyers and accountants have developed their skills, capability and knowledge also. NZVIF Ltd has also made a commitment to increasing the awareness of venture capital and the role it plays in economic development.

Interview feedback

MED asked industry stakeholders for their views on market development. Besides its investment activity NZVIF Ltd is seen to have helped develop the venture capital industry through influencing tax reform, supporting the venture capital industry via the SCIF and effective lobbying of government on issues relevant to the venture capital industry.

MED also asked industry stakeholders as to whether they considered there was a need for government to intervene in private equity markets. Almost all responded that they did not consider that there was a need for government to underwrite or de-risk this area of the market.

Comments relating to the influence of the NZVCA were also positive. The NZVCA have helped to set up networking events, developed market presence, established documentation and are seen to represent common interests of parties who have vested interests in building capability in the industry. However, there was some concern around the ability of the NZVCA to represent the divergent objectives of venture capital and PE, given the difference in investment time horizons and the implications for tax regulation.

While work has been undertaken to encourage financial institutions to invest in venture capital companies – one of the fundamental building blocks of a venture capital industry - both NZVIF Ltd and the NZVCA have been unsuccessful in cementing such a relationship as yet. However, as will be explored in section 9, the ability of NZVIF Ltd (or the NZVCA) to address such an issue is currently limited.

Other Areas

Over time, NZVIF have widened their market initiatives to include private equity. Most notably, for an extended period of time during 2008 and 2009 their website stated that NZVIF Ltd is a “private equity fund of funds investor”, that they “develop new private equity investment products” and that their people have “specialist skills in systematic review, assessment and due diligence of private equity and venture capital investment teams”.

NZVIF Ltd was established for the purpose of catalysing the venture capital market and, in line with our other recommendations, MED would recommend that market development activity be re-focused to the early-stage venture capital market.

7. Achievement of programme outcomes

In this section the policy objectives for the VIF are addressed and the extent to which these objectives have been achieved is assessed. An assessment is also made of NZVIF Ltd's contribution to these achievements.

In assessing progress towards programme objectives it is important to keep in mind the observations of Meyer (2007). Meyer notes that it is impossible to know with precision what would have happened in the absence of a programme. As private sector investors are also present in venture capital funds government can only provide partial additionality and it is difficult to determine the extent of this added value. There are also problems of measurement as there can be a number of government programmes operating in parallel with overlapping objectives. In addition, investing through private sector venture capital funds is a relatively "blunt" intervention instrument, and there is a risk that not all of the investments comply, or at least not fully, with the policy objectives. In such cases, backing companies that could access alternative sources of funding will lead to a poor "social yield" on public intervention.

7.1 What are the Policy objectives?

To recap, the overall objective of the VIF is to accelerate the development of a sustainable venture capital market in New Zealand. To determine whether this core objective has been achieved essentially the economic performance of the VIF funds needs be assessed.

Until there is a sustainable venture capital market, development of the venture capital market is expected to be evident in the following intermediate outcomes of the VIF:

- increased level of early-stage (i.e. seed, start-up and early expansion) investment activity in the New Zealand market;
- a larger pool of people in New Zealand's venture capital market with skills and expertise in early-stage investment;
- increased commercialisation of innovations from the Crown Research Institutes, Universities and the private sector; and
- more New Zealand businesses on paths to global success by increasing their access to international experts, networks and market knowledge.

Following, MED assess the achievement of each of these intermediate objectives.

Other than some programme forecasts by NZVIF Ltd in their Statement of Intent (SoI) no performance measures for defining success have been established for the VIF. Within policy documents for the VIF the policy objectives, themselves, are also undefined.[69] In order to undertake an impact assessment MED seeks to clarify the meaning of each objective and consider a number of indicators of performance for each. MED's

[69] There is also no discussion in policy documents as to the prioritisation, if any, of the intermediate objectives for the VIF.

assessment involves reference to both quantitative data and less quantifiable, but relevant qualitative information.

Guidelines for the VIF are set out in Cabinet papers and policy documents. However, in these papers there is little in the way of prescriptive detail as to how exactly the VIF would work. An interim Advisory Board was directed to use benefit to New Zealand as a reference point when judgements are required on issues that are not covered explicitly by the goals, operating principles and criteria for the programme.

7.2 Venture capital activity

The first intermediate outcome relates to increased early-stage venture capital activity in New Zealand. MED takes this to mean the number of venture capital funds based in New Zealand that undertake investments into early-stage companies, their underlying capital available for investment, the investments undertaken by these funds and the number of companies they have invested in. Increased venture capital activity does not necessarily relate to the size of individual investments In assessing the impact of NZVIF Ltd on venture capital activity MED draws upon investment data discussed in section 5.2, data provided by NZVIF Ltd and interviews carried out as part of this evaluation.

It was noted previously that there are currently six VIF venture capital funds operating in the market (the investments of which include early-stage companies) [70] with a further two in the process of raising capital. NZVIF Ltd also report that there is a pipeline of additional private sector venture capital funds that may be established.

Venture capital industry data reported in section 5.2 shows an increase in venture capital activity since the VIF came into effect and that investment through the VIF venture capital funds represents a sizeable proportion of the value of investment since 2005.

As at June 2009, $220 million out of the current $321 million in public and private capital commitments to the VIF venture capital funds have been invested in 48 companies.[71] In table 7.2(a) data on the number of companies receiving investment and the amount of investment (initial and follow on) across the whole portfolio, on a cumulative basis is shown. The VIF venture capital funds have invested, on average, $31 million into fund portfolio companies each year.

[70] In their 2008 SoI, NZVIF Ltd forecast eight venture capital funds by 2009/10..

[71] The investment figure includes investments via the IO Fund of approximately $5 million. In their 2008 SoI NZVIF Ltd forecast 52-60 investee companies by 2009/10.

Table 7.2(a) Profile of investment by VIF supported funds

	2003	2004	2005	2006	2007	2008	2009
Cumulative number of companies invested in.	3	11	23	35	37	45	48
Cumulative investment amounts (NZVIF and private sector venture capital funds, $ millions)	14	24	54	95	133	173	220

Source: NZVIF Ltd
Figures are June year basis and rounded

In table 7.2(b) investment data is broken down further. NZVIF Ltd's investment via each VIF venture capital fund (including management fees paid) on an annual basis is detailed and the total investment by VIF venture capital funds is shown.

Table 7.2(b) Annual VIF investments[72]
($ millions)

Private sector capital fund		2003	2004	2005	2006	2007	2008	2009	Total
TMT Ventures	NZVIF Investment	2.5	1.0	3.6	4.8	3.0	3.0	0.2	**18.1**
Endeavour i-Cap	NZVIF Investment	0.2	1.0	2.3	4.1	1.9	1.6	0.9	**12.0**
iGlobe Treasury	NZVIF Investment		0.5	1.2	2.7	2.1	1.1	1.9	**9.5**
No. 8 Ventures	NZVIF Investment	0.3	0.9	2.9	1.7	3.1	1.7	0.9	**11.5**
Bio Pacific Ventures	NZVIF Investment			0.1	0.5	2.2	2.7	2.1	**7.6**
Pioneer Capital Partners	NZVIF Investment					0.3	3.4	5.1	**8.8**
IO Fund	NZVIF Investment	1.7[73]							**1.7**
Annex Fund	NZVIF Investment							5.0	**5.0**
Total NZVIF Investment		**4.7**	**3.4**	**10.1**	**13.7**	**12.7**	**13.5**	**16.0**	**74.2**
Total private sector investment		**9.5**	**6.9**	**20.1**	**27.5**	**25.4**	**26.3**	**31.0**	**146.6**
Number of companies invested in		3	8	12	12	2	8	3	**48**

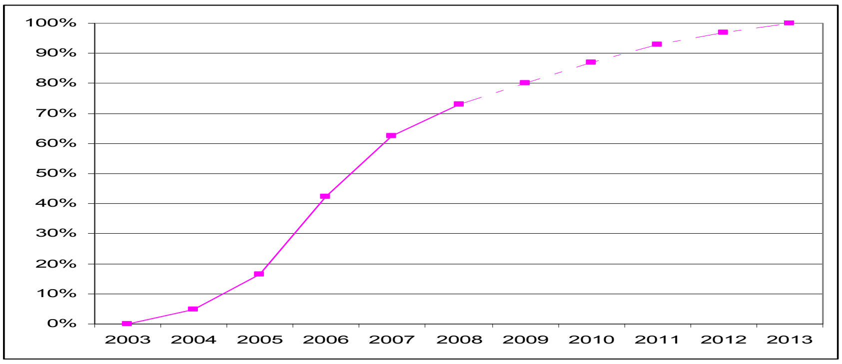
Source: NZVIF (NZVIF investment figures and companies invested in), MED calculations (private investment)
Figures are June year basis, totals may not add due to rounding

The nature of investing in a venture capital fund means that investors commit capital to a venture capital fund up front, and this capital commitment is drawn down progressively through the life of the fund as the fund manager makes investments and to pay fees. As a result of greater activity in the middle years of the life of a fund, the cumulative proportion of the fund invested is S-shaped over time– see figure 7.2(a).

[72] These figures include management fees paid to fund managers.

[73] These monies have since been returned to NZVIF Ltd.

Figure 7.2(a) Example cumulative percentage of VIF capital invested



Source: MED analysis

As of 20 June 2009 NZVIF Ltd has invested a total of $4.95 million through the Annex Fund, attracting matching private sector capital totalling $19 million. This capital has been invested in seven portfolio companies. NZVIF Ltd has capacity to do at least another six investments via the Annex Fund.

As shown in table 7.2(c), as at 30 June 2009, $36 million of NZVIF Ltd's committed capital was available for investment (less management fees). $14.9 million of this capital is committed to Pioneer Capital Management Ltd. Given the age of their fund, Pioneer Capital Partners still has three years over which to seek new investment opportunities. The remaining funds have either passed their active investment period (four funds) or have less than a year remaining to seek new investments. In terms of private sector monies, MED calculates that approximately $70 million in capital is available for investment across the six VIF venture capital funds.

Table 7.2(c) NZVIF Ltd committed capital available for investment, as at 30June 2009

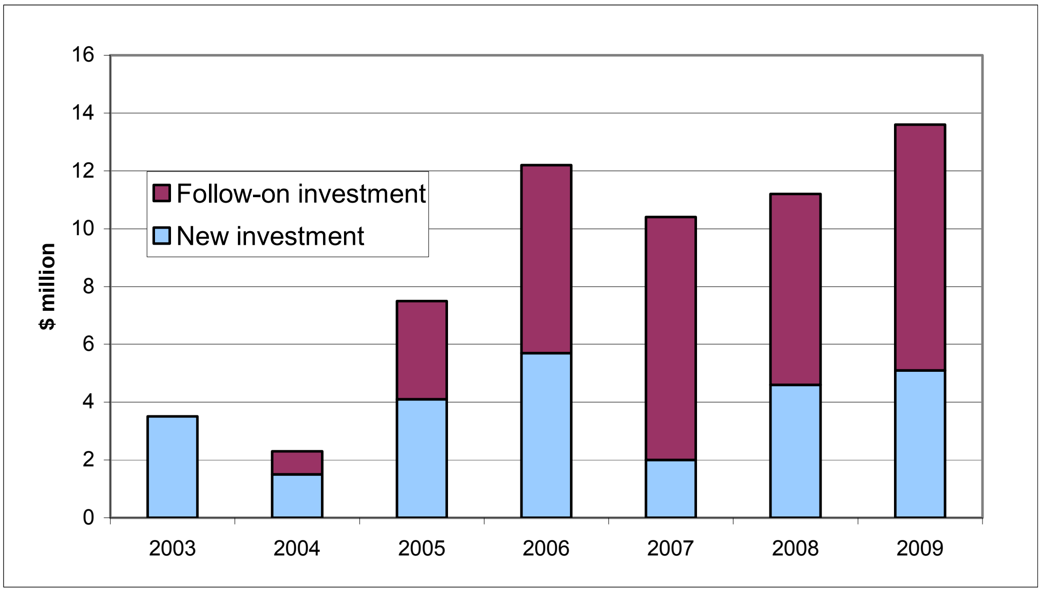
Private sector venture capital fund	NZVIF Ltd committed capital available for investment ($ millions)	MED calculations of private sector committed capital available for investment ($ millions)
TMT Ventures	$2.9	$5.7
Endeavour i-Cap	$1.1	$2.1
iGlobe treasury	$0.9	$1.8
No. 8 Ventures	$0.2	$0.5
Bio Pacific Ventures	$2.4	$4.8
Pioneer Capital Partners	$14.9	$26.8
Annex Fund	$14.0	$28.0
TOTAL	**$36.4**	**$69.7**

Source: NZVIF Ltd Annual Report and MED calculations

As at 30 June 2009 there remains $106 million of VIF capital – private and public - left to invest.

From 2006 the proportion of new investments made by the VIF funds dropped as they moved from seeking out new investments to supporting their existing companies. This change is seen in figure 7.2(b) below.

Figure 7.2(b): NZVIF Ltd Venture Capital Fund Investments



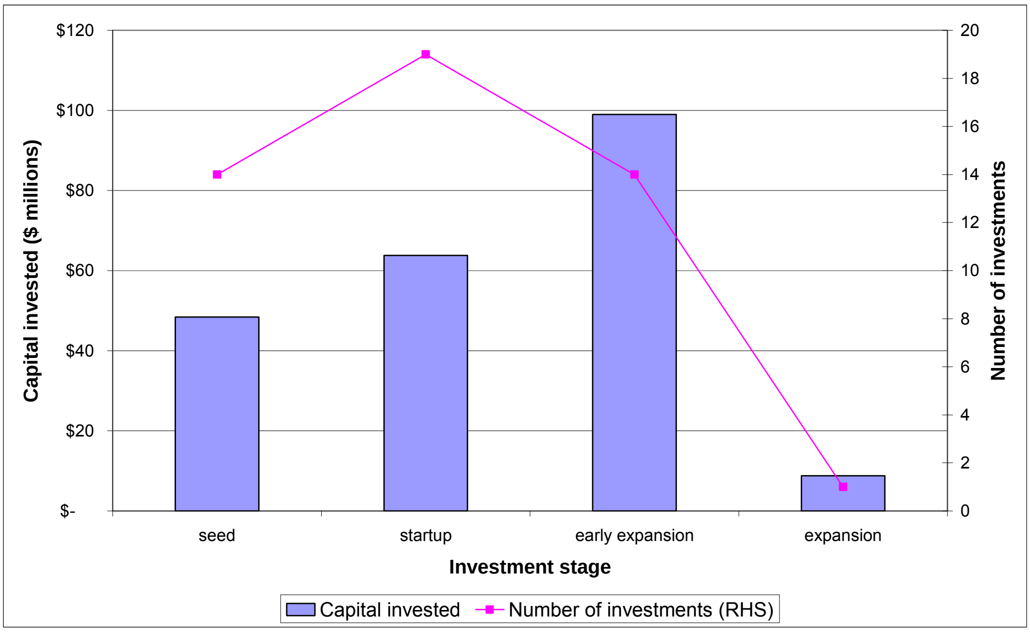
Source: NZVIF Ltd; Figures are June year basis and include investments made from the Annex Fund[74]

Of the 48 companies that have been invested in, 47 of these have been early-stage companies as defined by NZVIF Ltd and the VIF venture capital fund managers. In keeping with the investment restrictions on the funds, there has only been one new investment in a later-stage company. The portfolio split between the different stages of company development can be seen in figure 7.2(c). Start-up companies represent 40 percent of all new investments, while seed and early expansion each represent 29 percent of all new investments.

When considering the capital invested at different stages, investment into early expansion stage companies has received the highest percentage of capital (45 percent of total capital invested). To date, capital investment in start-up and seed companies has been 29 and 22 percent respectively of total capital invested. A company's stage is based on the stage when it first received funding from a supported venture capital fund.

[74] Data is exclusive of management fees.

Figure 7.2(c) Supported venture capital fund investments by stage, as at 30 June 2009[75]



Source: NZVIF Ltd

Investment activity is somewhat dependent on the number of venture capital funds and this will continue to be the case in the future. Out of the current VIF venture capital funds only one will still be seeking new investment in 2010, so without new funds entering the market it is expected that venture capital activity will contract further. However, forecasts in NZVIF Ltd's 2009 SoI have two additional funds entering the market in 2009/2010, supported by existing conditional commitments to these funds, with another fund expected to come into operation a year after that.

According to NZVIF Ltd, three distributions from the venture capital funds to NZVIF Ltd, resulting from the sale of investments, have occurred. The first was in 2006 realising $1.5 million, another in 2007 of $0.8 million and a third in 2009 of $3 million. This low level of divestment is not unexpected and is consistent with similar vintage venture capital funds offshore. Divestments are expected to increase as the funds approach the end of their life.

Interview feedback

The contribution of the VIF to the increased venture capital activity was supported by feedback from our interviews with industry stakeholders. The discussion below draws upon perceptions and opinions offered during these interviews.

- There appears to be agreement that there have been significant changes in New Zealand's venture capital market. More fund managers and investors have entered the market, most with offshore experience (both venture capital and company start-ups) and there is greater clarity around the role of a venture

[75] When comparing the NZVIF Ltd data presented in 7.2(c) to that provided by the NZVCA in 5.2(b) the difficulties in interpreting the stages of investment are highlighted.

capital fund manager. There is collaboration in the venture capital industry versus competition.

- Most market participants and also commentators attribute the speed of development of the venture capital market since 2003 to the existence of the VIF. Many suggest that the venture capital industry wouldn't exist without it.

- Four VIF venture capital fund managers advised us that they would not have been able to establish their funds without the presence of NZVIF Ltd. (However, this is not to say that in the absence of VIF that none of the capital would have made its way to early stage companies in some form).

- The VIF has been instrumental in bringing in players to the industry (one fund manager suggested an increase to 30 investors in the last five years although another suggested these might not all have the necessary skills).

- A number of VIF venture capital managers indicated that being able to access investment from NZVIF Ltd was critical in giving them market accreditation or a tick of approval in seeking other investors, particularly international investors. (Many saw this seal of approval as more important than NZVIF Ltd funding). Others reported that support has been "nice to have", perhaps because they were already well advanced in raising a fund.

- Fund managers suggest that deal flows range from two or three companies per week to over 250 a year. To illustrate the investment process, one fund manager reported that in one year their fund considered 250 investment proposals, engaged with 150 companies, issued term sheets to ten companies and invested in less than half of these.

- Some stakeholders, particularly institutional investors, took a less positive view of the VIF. Specific concerns were :

  1. Opportunistic fund managers have been encouraged to enter the market. They have insufficient regard for investors' capital, being more concerned with ensuring that they meet the government's requirements and collecting their management fees, rather than growing the companies in which they have invested.

  2. The VIF has allowed some managers who were insufficiently skilled practitioners to manage funds.

  3. NZVIF Ltd investment activity has fragmented the pool of available capital that would otherwise have coalesced into bigger and better funds.

  4. There was concern expressed by some industry stakeholders that the incentives offered by the VIF have brought a level of investible funds into the market that were excessive in relation to the range of opportunities, and created something of a bubble, with relatively unpromising investments receiving funding.

7.3 Venture capital expertise and skills

Venture capital is much more than just the provision of capital. The expertise and skills of venture capital fund managers also play a crucial role in the success of a venture capital fund and in the development of the venture capital industry. As discussed in section 2 good venture capitalists apply rigorous screening to identify the most promising projects prior to awarding finance and then are able to adequately monitor their investments. Venture capitalists also actively work with the management teams of their portfolio companies, provide these companies with access to networks and help them to attract further finance.

According to the NVCA yearbook venture capitalists often are invaluable in building strong management teams within an investee company, managing rapid growth and facilitating strategic partnerships. The general partners of venture capital funds become actively involved with a company and typically take a seat on the Board. With start-up companies, daily interaction with their management team is also common. This limits the number of start-ups in which any one fund can invest in.

Evidence from the literature indicates that more experienced and higher reputation venture capitalists achieve better economic outcomes.

MED interprets the objective “a larger pool of people in New Zealand’s venture capital market with skills and expertise in early-stage investment” to mean a greater number of trained and experienced venture capitalists with the above-mentioned skills and expertise.

As a potential indicator of the level of venture capital expertise and skill in New Zealand NZVIF Ltd report the number of key investment personnel in the funds in which they have invested with (refer table to 7.3(a)). The data shows that, as VIF venture capital funds have commenced activity, the numbers of key personnel in these funds have increased. In average terms, each fund currently has about three key personnel each. Since 2007 the number of key investment personnel has remained constant.

Table 7.3(a) Key investment personnel in VIF venture capital funds (cumulative)[76]

	2003	2004	2005	2006	2007	2008	2009
Number of key investment personnel	11	13	16	16	19	19	19

Source: NZVIF Ltd, June year basis

Although the pool of ‘key investment’ personnel has increased over time, judging the level of skills and expertise of those involved is difficult. Given that the fund managers have been through a due diligence process and have raised funds one could infer that they have the right skills and experience to manage a venture capital fund. However, it is not until fund managers establish a track record and are successful at raising subsequent funds will their skills and expertise become more obvious.

[76] In their 2008 SoI NZVIF Ltd forecast 21 key venture capital investment personnel by 2008/09. The lower result likely reflects the lower than expected number of VIF private sector venture capital funds.

As the expertise and skills of a venture capitalist increases one would expect to see them developing their operational and investment competencies. The former is likely to encompass the deal process (i.e. finding, filtering, inviting, documenting and managing investments) as well as their portfolio investment methods (i.e. documentation conventions, pricing, risk strategies and governance). Investment competencies are likely to include the nature of their portfolios, their deal successes and the skills used to assess investments.

Feedback from interviews

The current VIF venture capital managers which NZVIF Ltd has invested in have a range of experience. This experience includes running start-up companies, investing in angel and venture capital companies and participating in the PE industry. However, while there is greater clarity around the role of a venture capital fund manager there is still a lack of depth in the skills and experience of these managers.

All venture capital fund managers emphasised the non-financial support that they provided to their portfolio companies. While “shaping organisational design and governance” and “shaping their strategic direction” appear to be key roles, their assistance to each portfolio companies ultimately depends upon the company’s stage of development. The earlier the stage of a company, the more likely a venture capitalist will be hands on. Later-stage venture capital investing is more about assisting in the strategic direction of a company.

One respondent mentioned that, where a fund is a minority shareholder, it can be difficult to influence the owners of a company and to ensure that a growing company possesses the requisite skills.

The length of time spent with each investee company varies depending on the type of company and its age. Responses in this regard included: working with an investee company on a day-to-day basis, for two days per week, or for 30 hours per week. It is common for VIF venture capital fund managers to be represented on the Board of their portfolio companies.

Venture capitalists will bring in outside assistance to a company, when needed. This assistance varies from short-term assistance addressing a specific problem to bringing in a new CEO.

The availability of managers and directors with the necessary skill sets to run a portfolio company can be an issue. Often it can be difficult to find the right people to run a company.

Most industry stakeholders thought that participation in the VIF had encouraged learning and helped develop processes.

A number of respondents suggested that we need to make it more attractive in New Zealand for experienced international venture capitalists to set up and bring in their skills, knowledge and connections.

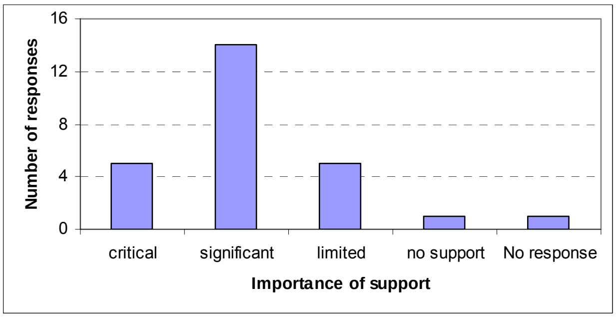
Feedback from the survey of investee companies

Investee companies were asked how important the support provided to them by their fund manager had been to their business. Their responses are presented below across a range of activities. The categories that received the highest number of positive responses (critical or significant) were “shaping its strategic direction” (19 responses), “future sources of funding” (14 responses) and “shaping organisational design and governance” (13 responses). These results correspond to the areas that were separately identified as being of the greatest assistance, in terms of support from venture capital fund managers.

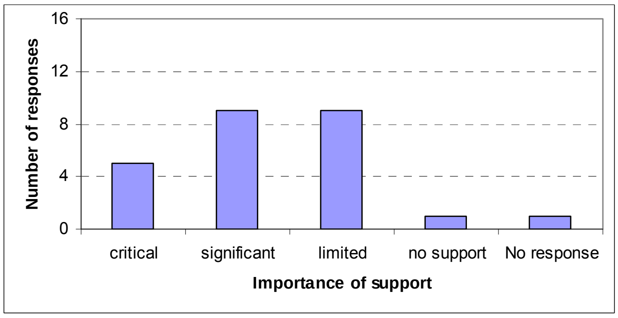
Two areas in which company representatives rated support provided by venture capitalists as low were ‘marketing and advertising’ and ‘supply and distribution channels’. However, these results may simply reflect the fact that some of the companies no longer require assistance in these areas.

Figures 7.3(a) Importance of support provided by venture capital managers (n=25)

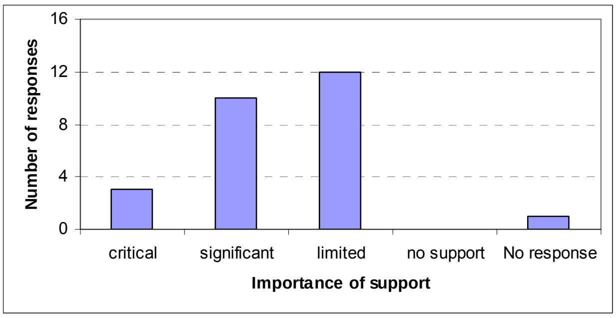
Shaping its strategic direction



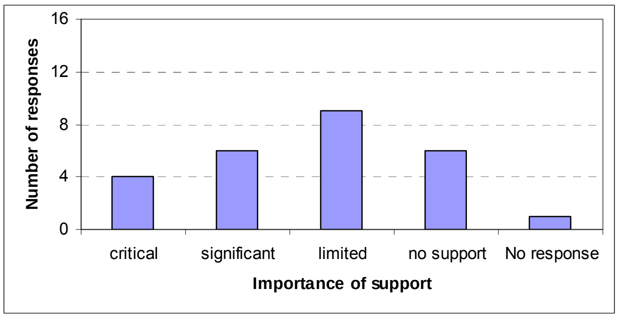
Future sources of funding



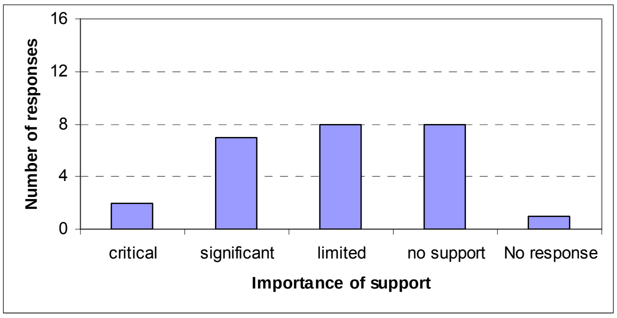
Shaping organisational design & governance



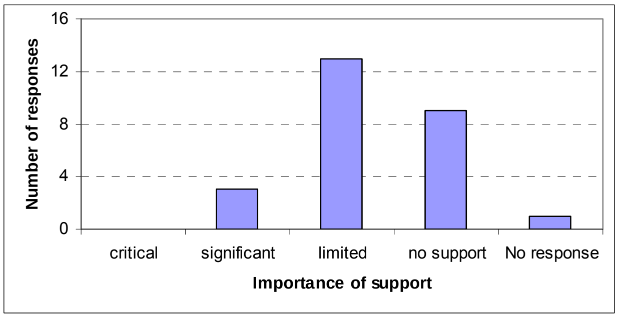
Overseas expansion



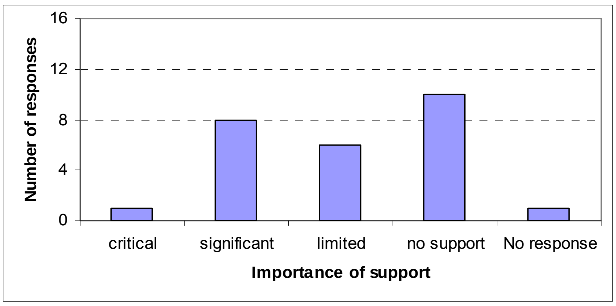
Product or service development



Marketing and advertising



Supply and distribution channels



Source: MED survey of VIF investee companies

Representatives of each VIF investee company were asked if there had been particular advice or information from their fund manager that had helped them to develop their business. 17 responses were received. The most common assistance included "helping to undertake international marketing/making connections (five responses) and "assisting with subsequent funding" (four responses). These comments are consistent with figure 7.3(a). An example comment included:

> *"our fund manager was fantastic at opening doors in the international marketplace so that our company had the opportunity to sell its technology to all the main players (large multinationals) in our industry"*

Company representatives were also asked if there were key areas where fund managers could have provided greater support to their company. The most common areas that were mentioned included future capital raising (three responses) and overseas networking/distribution (three responses). Other areas of support included assistance with product and service development, governance and financial oversight, and planning and executing an exit strategy.

Issues

Judging the level of skills and expertise of those working in the industry can be difficult. With a number of new funds entering the market since the VIF came into effect, the number of individuals with venture capital skills and expertise has increased. Through running venture capital funds and improved networking through the NZVCA one would expect that the capability of these managers has also improved overtime. The evidence from the survey of VIF investee companies suggests that overall, there is a positive view of the abilities and contributions of fund managers and their teams, contrary to some of the comments reported above from other market participants.

The capability of the managers will be ultimately judged by the market on the basis of the returns the funds produce and their ability to raise subsequent funds.

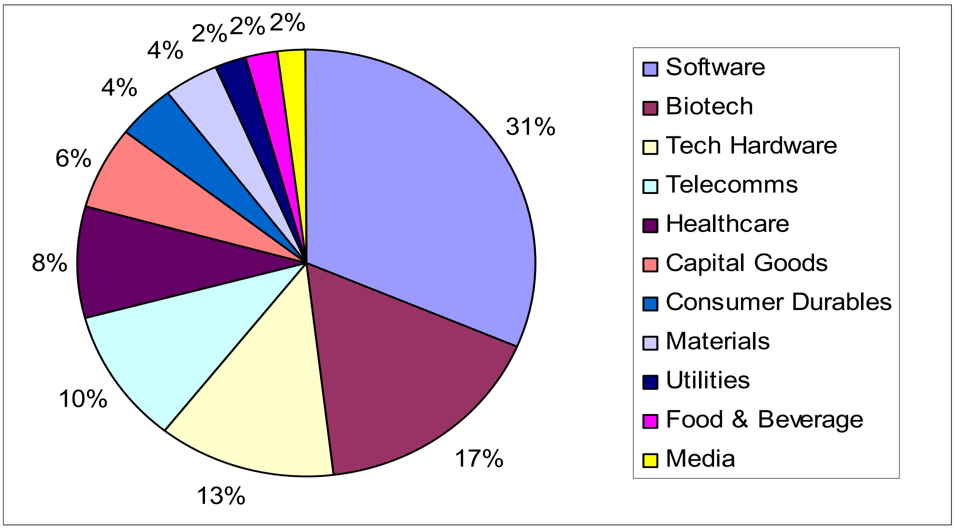
7.4 Commercialisation of innovation

One of the objectives of the VIF is "increased commercialisation of innovations from the CRIs, universities and the private sector." However, it is not possible to assess the extent of increase in commercialisation due to the VIF. In this sub-section MED cover the sectors in which the investee companies operate and the flow of deals and investee companies from CRIs and universities to venture capital funds. To aid the commercialisation of innovations from CRIs and universities venture capitalists first require a steady stream of high quality potential investment opportunities flowing from these institutions.

7.4.1 Investment by sector

Investments by the VIF venture capital funds have covered a wide range of sectors (11 in total) but have tended to concentrate their activity in two main areas - software and biotechnology. As shown in figure 7.4(a) together these sectors account for 48 percent of all investments (i.e. 23 investments out of 48).

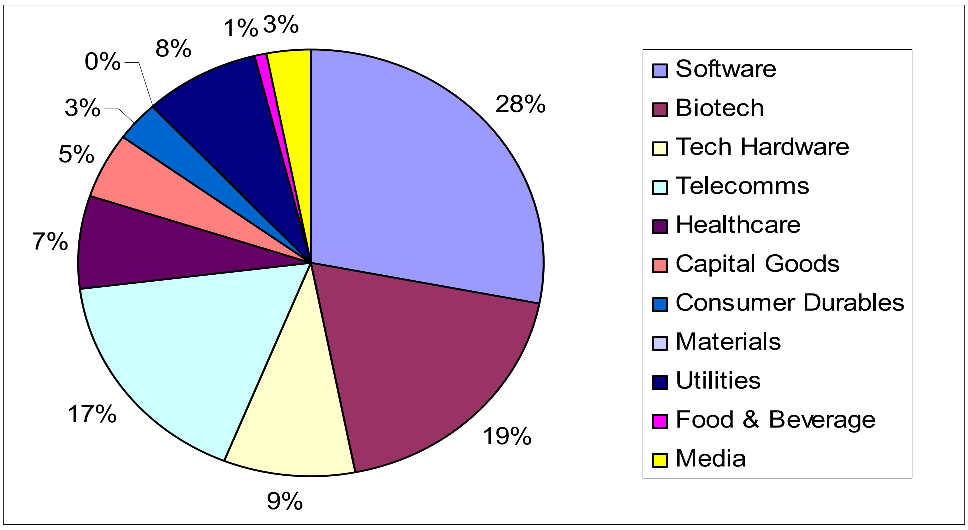
Figure 7.4(a): NZVIF portfolio by sector (share of number of investments) as at 30 June 2009



Source: NZVIF Ltd

When looking at the amount of capital invested into each sector, relative to the sectors share of investments, a similar pattern can be seen, with a few exceptions. As shown in figure 7.4(b) ten percent of all investments have been made in telecommunications companies accounting for 17 percent of initial capital outlays. Similarly, two percent of investments have been made in utility company sectors, representing eight percent of capital invested.

Figure 7.4(b): NZVIF portfolio by sector (share of capital invested) as at 30 June 2009



Source: NZVIF Ltd

7.4.2 Deal flow and investments from CRIs and universities

Compared to the overall deal flow to VIF venture capital funds the number of potential deals from universities and CRIs is low (i.e. six percent - see table 7.4(a)). However, the number of companies invested in from both of these sources represents almost a quarter of all investee companies. It appears that, relative to other investment possibilities, investment opportunities arising from an IP environment such as a university, in particular, are seen to have more potential and are more likely to be taken up by venture capitalists.

Table 7.4(a) Deal flow and portfolio construction by source, as at 30 June 2009

Dealflow	Frequency	% share
Total number of deals viewed:	**2129**	
Potential deals from CRIs	55	3%
Potential deals from universities	72	3%
Potential deals from CRIs and universities	**127**	**6%**
Investments	**Frequency**	**% share**
Total number of companies invested in	**48**	
CRI sourced investments	2	4%
University sourced investments	9	19%
Total CRI and university investments	**11**[77]	**23%**

Source: NZVIF Ltd

The above result for CRIs accords with results from MED's survey of VIF investee companies and highlights that deals from CRIs represent a relatively small proportion of VIF venture capital deals.

In addition to the data presented in table 7.4(a) 140 or seven percent of possible investment deals have been from Incubators.[78] In turn, five companies originating from Incubators have been invested in. As Incubators are increasingly working alongside CRIs and universities to encourage the commercialisation of innovations, some of these deals/companies may have also originated from these sources.

Through their due diligence process NZVIF Ltd place an emphasis on the relationships between VIF venture fund managers and universities and CRIs. (Essentially they probe how fund managers will engage with these institutions). However, in keeping with an 'arms-length' basis, other than the due diligence process, NZVIF Ltd advise that there are minimal levers available to them to influence whether venture capitalists develop these relationships further.

Feedback from interviews

A number of venture capital funds have strategic relationships with CRIs and there have been a small number of deals from CRIs, as well as universities. However, contrary to the view above, fund managers tend not to deem these deals to be 'successful'. Deals from CRIs and universities are seen to be less mature than other types of deals and some of them are not put together by good commercial people.

There appear to be a number of factors standing in the way of successful commercialisation of CRI and university research by venture capitalists. For example, one

[77] This result accords with NZVIF Ltd's forecast in their 2008 SoI.

[78] Business incubators are designed to enhance the success of early-stage entrepreneurial companies and speed the establishment of self-sustaining companies. They provide a range of business support resources and services developed and orchestrated by incubator management and offered within the incubator and/or through its network of contacts.

respondent noted that CRIs have a strong consultative culture which can lengthen the time to get a business up and running. One CRI said that they operate at the very early, pre-revenue stage of a business and so don't tend to interest venture capitalists. At most universities the environment could be more open and encouraging of commercialisation and more engaged with the market.

Essentially, while there are different drivers between CRIs and universities to commercialise innovations, the lack of incentive is similar. Neither have a strong profit motive or specific incentives to transfer technology into private sector companies. They also both require continuity of income.

These views are in accord with feedback from interviews undertaken for the evaluation of the Incubator Support Programme and the baseline evaluation for the SCIF. From the Incubator evaluation MED learnt that there is no one formula for cementing relationships with CRIs and universities. Rather, the development of such relationships can be a long-term endeavour and depends on the people and organisations involved.

In both the aforementioned evaluations MED recommended that in New Zealand we consider how to integrate private sector commercialisation interests (and their financial contributions) with current university mandates. MED also sought a greater understanding of the role of universities and CRIs and some of their behaviours. It appears that these recommendations are still relevant.

Even if venture capitalists do not invest in early innovations from CRIs and universities they are able to provide feedback to researchers and entrepreneurs which can help to position the technology in the market.

Comment from the literature

Lerner et al (2005) note that the commercialisation of innovations from CRIs and universities is a demand side issue for the venture capital industry. Issues include the quality of our education and research institutions and their ability to transfer bright ideas from the lab to the market place; the level of investment in research and development; the willingness of individuals to take entrepreneurial risks and the extent to which New Zealand's culture and education processes support this risk taking; and the demonstration effect of success breeding success.

7.5 Businesses on the path to "global success"

An intermediate objective of the VIF is to get "more New Zealand businesses on the paths to global success by increasing their access to international experts, networks and market knowledge. To a large extent the success of this objective is related to another VIF objective – that is, increasing the skillset and expertise of venture capitalists. As venture capitalists develop the skills to assess the commercial potential of a business and expertise in managing their investments they become more able to assist investee companies to grow and reach their full commercial potential.

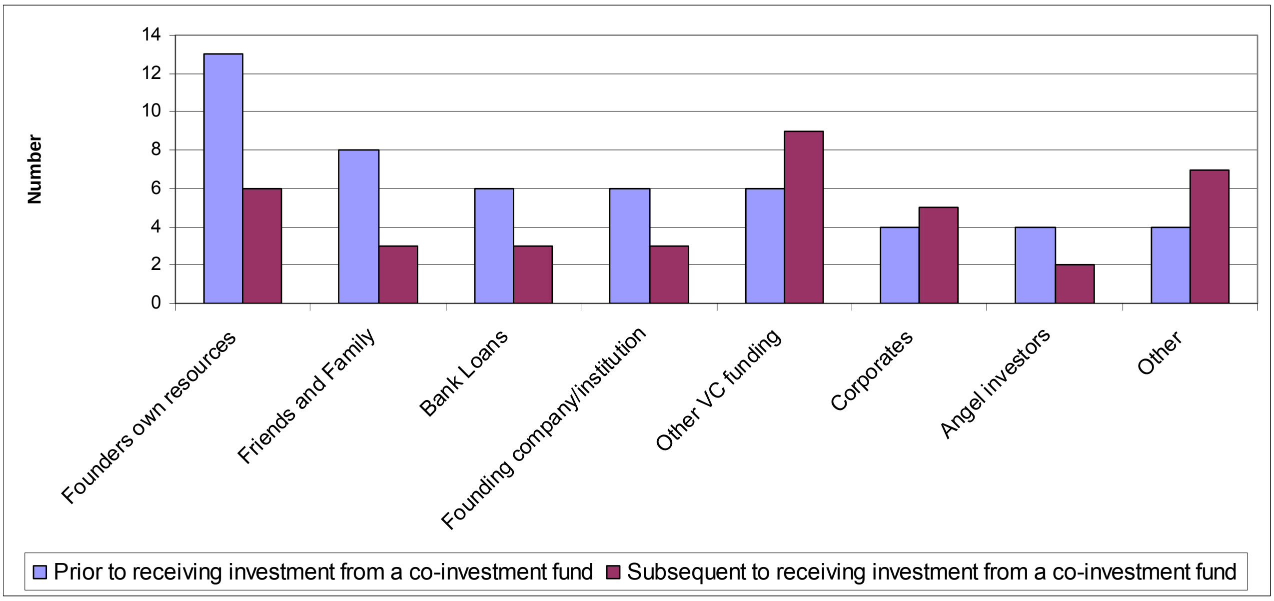
In terms of access to international experts, in Section 5 it was noted that some of the current VIF fund managers had overseas experience and others were syndicating with offshore partners. However, encouraging the transfer of both skills and capital from overseas remains a priority for the VIF.

Indicators to measure whether the VIF investee companies are on the path to global success include their funding and their exports. Market recognition that a business is on a path to global success should be seen through its ability to raise funding for growth. Similarly exporting indicates a market demand for a product.

This section draws heavily on the results of a survey of the VIF venture capital funds' investee companies (for further information on the survey see Appendix 12.1), and is supplemented by our interviews and information reported by NZVIF Ltd.

In the survey companies were asked to indicate their sources of funding prior to and after receiving investment from VIF venture capital funds. Their responses are shown in figure 7.5(a). As expected, in the early stages of development, companies primarily use their own resources and that of friends and family to help finance their business. However, as their business develops other sources of finance become easier to access. Of interest is the 'other venture capital funding' category which represents funding from venture capitalists other than via the VIF. The results suggest that there are a number of less formal venture capitalists in the market. It is encouraging to see an increase in this category for funding after VIF investment – this could imply that, thereafter, business proposals are viewed more favourably by other venture capitalists and private investors.

Figure 7.5(a) Sources of capital (count of positive responses) (multiple categories possible, sample size = 25 (prior), 21 (subsequent) [79]



Source: MED's survey of VIF investee companies

Survey respondents indicate that money received from the VIF venture capital funds represents, on average, 38 percent of total funding over the life of their company. In median terms this venture capital funding represents 30.5 percent of total funding.

[79] Other sources of funding reported by investee companies included: International investors, customers, retained earning, grants, venture debt and other private investment.

Of the 25 companies surveyed, 22 respondents stated that they intended to raise additional capital within the next two years. In table 7.5(a) their anticipated sources of capital are summarised. Of the companies that are looking to access further venture capital, six stated that this capital would be from overseas venture capitalists.

Table 7.5(a): Anticipated sources of capital within the next two years (open responses, multiple categories possible)

Capital source	No. of responses (out of 22)
Venture capital	10
Associated corporate/partners	8
Existing investors	4
Public markets	2
Unspecified	3

Source: MED's survey of VIF investee companies

Respondents were asked how much capital they were looking to raise within the next two years and what would be the primary purpose of this funding. 19 respondents provided us with this information. The amount of money that would be sought varied greatly from NZ $1.5 million for product development and offshore growth to US$35 million for the continuation of clinical trials and general business growth. In total, the respondents were looking to raise on average NZ $77million and US $64 million.[80] Capital raised was mainly to be used for market development or both product and market development.

As an indicator of businesses on the path to global success, NZVIF Ltd has collected data on the number of investee companies exporting and the number attracting offshore capital (see table 7.5(b)). As at June 2009 just over half the investee companies were exporting and one third had attracted offshore capital. However, as shown in figure 7.3(a) less than half of the VIF investee companies responding to MED's survey felt that the support provided by VIF fund managers had been critical or significant to expanding overseas.

Table 7.5(b): Cumulative indicators of global success

	2003	2004	2005	2006	2007	2008	2009
Number of companies exporting	2	4	11	15	22	25	33
Number of companies attracting offshore capital	0	4	5	9	13	14	16

Source: NZVIF Ltd, June years

MED plans to use the longitudinal business database of Statistics New Zealand to investigate alternative measures of "success" of companies invested in by VIF venture capital funds vis a vis companies that did not receive such investment.

[80] Where a range was given averages were calculated.

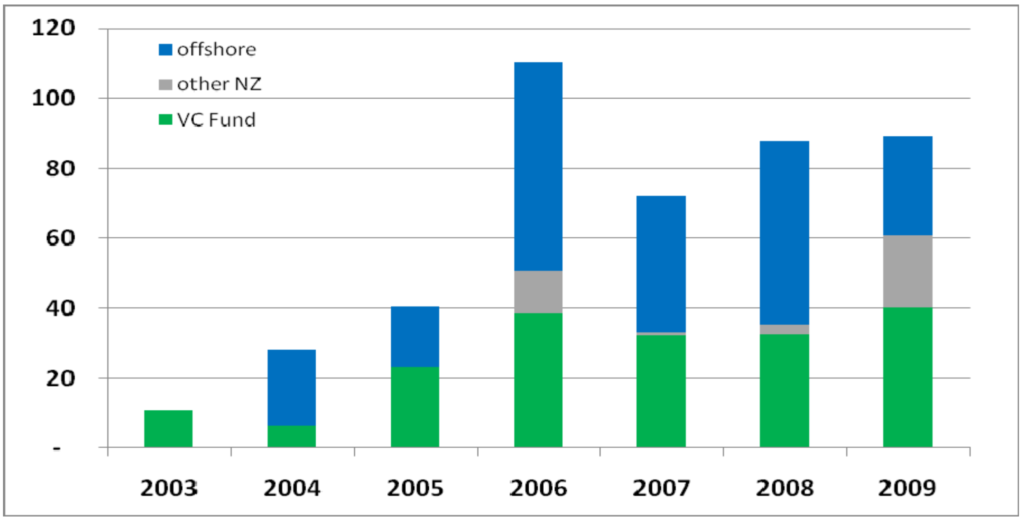
Another indicator of "global success" could be a change in ownership. Buyouts and company mergers can be indicative that a business is doing well and others see the value proposition of a business. In this respect three VIF investee companies have been sold, VIF venture capitalists are no longer investors in two companies (one of which is known to have merged with a U.S. company) and MED understands three investee companies are no longer actively trading. None of these eight companies were surveyed by MED.

In relation to how and when VIF investee companies responding to MED's survey expected to realise value from their company 13 out of 16 said that a trade sale was the most likely path. Only two company respondents gave an IPO as the only path. Representatives of investee companies were asked at what date they expected to realise value from their company. Of the 17 that responded, all gave dates prior to the end of their respective venture capital fund from which they had received funding, with the median response being three years prior to the end of the fund.

Private capital

According to data from NZVIF the 48 companies that have received VIF funding have raised in aggregate $440 million, with over $218 million being raised from sources other than New Zealand venture capital funds. Figure 7.5(b) shows the amount of capital raised by companies with the bulk of the capital following the initial venture capital investment. In 2009 the impact of the global financial crisis is evident as there appears to be substitution from offshore to local capital sources.

Figure 7.5(b) Capital raised by portfolio companies



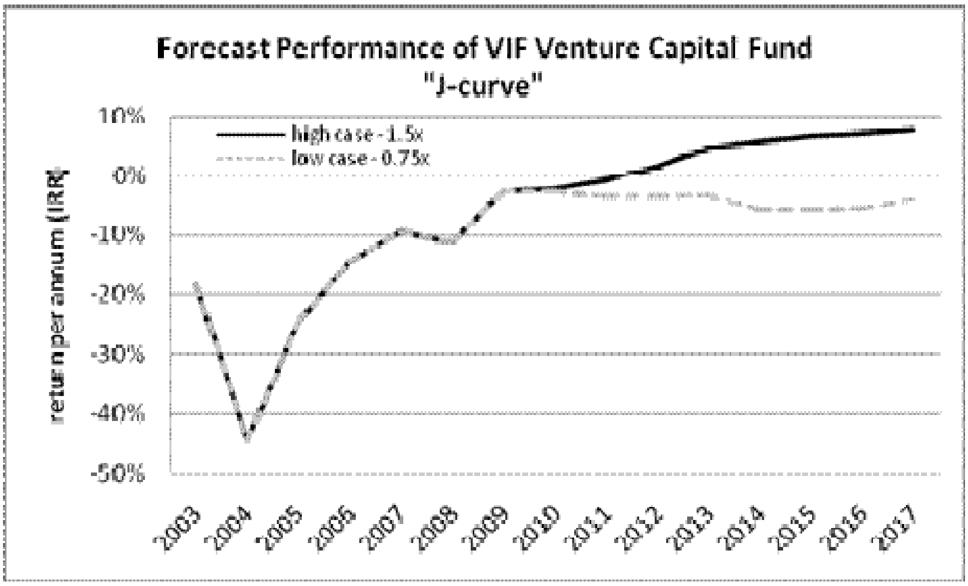
7.6 Is New Zealand's venture capital industry sustainable?

In short, not yet.

It is too early to see evidence of final returns in the market and, as noted in Section 6.3.5, the fact that the buyout options for the existing funds have been not exercised is seen by many as a signal that investors in existing funds were not confident in the overall returns from their portfolios.

The definitive return on a fund can only be calculated when it is wound up. (On measures of interim and final valuation see Burgel, 2000.) While the interim performance of the six individual funds in which NZVIF Ltd is a limited partner cannot be disclosed due to confidentiality requirements, NZVIF Ltd's expectation of the performance of their overall stake in the supported funds is provided in the figure below. The J curve in figure 7.6(a) shows past performance, and forecast high and low case performance.[81]

Figure 7.6(a)



Source: NZVIF Ltd

While it is difficult to know how wide the margins of uncertainty around this forecast might be, it is concerning that over the period when the early funds will be 'cashed-out', and until 2017, the range of IRR centres around 0 percent. (This is the average return across NZVIF Ltd's portfolio. Underlying this will be a variable performance of the individual VIF venture capital funds, i.e. some will do better and some not as well).

In table 7.6(a) additional performance data for NZVIF Ltd's investments into the six venture capital funds is presented along side that of the most widely used performance benchmarks. From this comparison the return on NZVIF Ltd's investment is in line with the benchmarks and highlights that many funds of the same vintage are yet to move into positive returns.

[81] In NZVIF Ltd's Statement of Intent (2009 -2014) the IRR is calculated using actual and forecast investment cash flows using the unrealised value of the portfolio as the terminal value. This method has been recommended by the Chartered Financial Analyst Institute's Global Investment Performance Standards as appropriate for calculating performance during the life of a venture capital fund. In addition NZVIF Ltd state that their forecast is tempered compared to the expectations of individual fund mangers in light of the current state of the market and uncertainty around potential exit values.

Table 7.6(a) Comparators to 2004[82] vintage venture capital benchmark

	IRR	D/PI[83]	RV/PI[84]	Multiple[85]
VIF FoF (Jun 09)[86]	-3.1%	0.07[87]	0.83	0.90
Preqin Early stage VC median (Jun 09)	-3.4%	0.05	0.88	0.94
Cambridge Associates/NVCA US VC median (Jun 09)	-5.0%	0.14	0.84	0.98
Thomson Reuters US VC median (Dec 08)	-0.7%	0.18	0.86	1.04

Source: NZVIF Ltd

Uncertainty about the likely performance of the VIF venture capital funds, inevitable at this stage of the venture capital industry's development in New Zealand, has contributed to a lack of institutional investment. (This issue will be discussed in section 9).

While there has been demand for VIF support for the establishment of new funds over the last two to three years, the main factor identified by market participants limiting the establishment of new funds has been the difficulty of raising private sector investment. While the global financial crisis has made the position more difficult, many market participants noted this had intensified problems already apparent. However, it is the private sector investment that still informs the Crown's investment decision.

Comments from the literature

Venture capital investment is not driven by quick returns or transaction fees. Economic success occurs when the realised price increases sufficiently above the purchase price to compensate investors for the risks they assume. The NZVCA note that when a venture capitalist makes an investment in a company, it is essentially illiquid and worthless until the company matures. Unless a company is acquired or goes public there is no defined market value.

The NVCA report that around 40 percent of venture-backed companies fail, 40 percent return moderate amounts of capital, and only 20 percent or less produce high returns. It is

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[82] 2004 vintage used as it is the best fit for makeup of the NZVIF Ltd portfolio as the majority of the funds began investing in this year.

[83] Distributions/Paid in Capital – the proportion of the called up capital that has been distributed or returned back to limited partners. This will include cash and stock distributions, with the latter being valued as at the date of distribution and treated in the same way as a cash distribution.

[84] Remaining Value/Paid in Capital – The value of the limited partner's remaining interest in the partnership, as derived from the general partner's valuation of the unrealized portfolio and its allocation of this to the limited partners. Valuation of unrealized investments expressed as a percentage of called capital.

[85] Current valuation/Original investment - The ratio between the total value that the limited partners have derived from their interest in the partnership - i.e. distributed cash and securities plus the value of the limited partner's remaining interest in the partnership – and its total cash investment in the partnership, expressed as a multiple.

[86] NZVIF Ltd 30 June 2009 figures are based on audited annual accounts.

[87] As at Oct 09 Distributions/Paid in Capitall is now 0.13 as a result of a recent distribution.

the small percentage of high return deals that are most responsible for the venture capital industry consistently performing above public markets.

Meyer (2007) notes that creating a self-sustaining venture capital market is a frustratingly long-term and often elusive objective and few industrialised nations have managed to achieve this. At least, theoretically, governments are able to take a truly long-term orientation and to absorb risks private investors cannot. Then, with increasing maturity and growing investment returns, government budgets need to be complemented with, and finally replaced by, funding from the private sector.

Avnimelech & Teubal (2005) assert that funds that are not highly profitable are likely to have a negative impact on the process of venture capital industry emergence. For Yozma they saw, as a necessary condition, that first funds show high financial returns so as to trigger the entry of additional venture capital funds. Initial successes and the reputation of a programme attract high quality investors and with them additional deal flow. This creates a virtuous circle of further success and enhanced reputation.

Feedback from interviews

A recurring theme in discussions with potential investors in venture capital funds - here and offshore - was that New Zealand's venture capital industry would be seen as immature until track records of fund performance have been established. The ability to refer to performance metrics is a critical consideration in allocation decisions, particularly for institutional investors.

Only two industry stakeholders thought that New Zealand's venture capital market could be self-sustaining. All other stakeholders thought that, without the VIF, New Zealand's venture capital industry would continue to lack scale and stagnate. Most of the existing venture capital funds in New Zealand are first time funds. Only when venture capital funds get to be second or third generation and are able to demonstrate their value proposition to investors are they likely to become self-sustainable.

Only demonstrated returns will deliver a sustainable market and these are yet to be forthcoming. There is a range of expectations amongst fund managers in terms of returns. On a cash in/cash out basis, the most common expected return was 20-30 percent. However, other respondents expressed doubts that returns will be high enough to sustain the industry. New Zealand is not unique in this – except for Israel, parts of the U.S. and the U.K, - there is no real self-sustaining venture capital industry anywhere.

Many stakeholders commented that the venture capital industry was currently almost inactive, with only one fund making new investments.

Discussions with industry stakeholders revealed continuing potential deal flow to existing venture capital investors, but concerns about investment readiness and unrealistic expectations in some cases from those companies seeking finance. It was felt that most companies lack sophistication and do not appreciate the scale of the support that they need to grow.

7.7 What would overall success of the VIF look like?

Ultimately success for the VIF will be demonstrated when the market no longer requires its support, likely occurring when the market has achieved depth and breadth and is more than the sum of its parts. Growing a sustainable venture capital market is not just about individual firms and fund managers but relates to the scale, scope and competitiveness of venture capital. It also includes the expertise and capability of related intermediaries such as lawyers, accountants and consultants. It is about raising the awareness of venture capital as an asset class amongst both investors and entrepreneurs. In this regard MED found that, on the whole, good progress has been made.

However, sustainability is also about reaching a point where institutional investors are willing to place capital into the asset class. It is about local venture capitalists attaining the requisite levels of skills and capability needed to exit their investments and earn superior returns. So far there have been few successful exits from investee companies by fund managers and no funds have exercised their buy-out option. The market has not yet reached the point where there is a track record on which to assess investment opportunities and evaluate fund manager performance

Building a viable venture capital market in New Zealand is a long term undertaking. International experience points to fund managers not being able to begin to attract funding from a wider pool of potential investors until they demonstrate a track record. This, and our experience to date in New Zealand, suggests that government support, in one form or another, for venture capital in New Zealand will be required for another 15-20 years.

This timeframe is an extension to that originally envisaged for government support but is consistent with similar programmes in other jurisdictions (excluding an outlier such as Israel). As Lerner (2009) notes, “the nations that have been most successful in public programs have been willing to end those that are not doing well, and to substitute other incentives. Even more powerfully, they have been willing to end programs on the grounds that they are too successful and hence no longer in need of public funding.”

8. Value for money

In this section the value for money the programme has represented to date is considered, and what changes, if any, could be made to the VIF to improve its effectiveness are examined. An assessment is also made as to whether value for money can reasonably be expected from more capital for the Fund.

8.1 The policy expectation

NZVIF Ltd is given an appropriation via Vote Economic Development to produce agreed outputs and it delivers those as it sees fit, and within the parameters agreed in their Constitution and annual SoI. In evaluating the VIF MED assesses the programme as it is structured, and examines whether it is an efficient and cost-effective mechanism for delivering the Crown's capital into the venture capital market.

MED's evaluation assessment is arrived at on the basis of the trend level of costs of operating the VIF, industry benchmarks, and what is known of the quantity of outputs produced by NZVIF Ltd and the quality of outputs delivered.

The founding policy documents for the VIF state that it was established to catalyse the venture capital market in New Zealand and to build a cadre of private sector fund managers skilled and capable in venture capital. There was an expectation that once this was achieved the government would exit. NZVIF Ltd was intended to be a temporary structure with planned obsolescence once its job is done: when private sector activity is of sufficient scale to support a self-sustaining market for early stage capital. The Cabinet paper incorporating NZVIF Ltd noted the following:[88]

> *the investment decisions will be delegated entirely to the fund managers but will be made within the parameters of the contract between the investors and the fund managers. Once this happens, the role of NZVIF Ltd will focus on monitoring the funds to determine their progress and adherence with fund agreements, and reporting as required to the shareholding Ministers. Incorporating NZVIF Ltd will not affect this anticipated reduction in activity, and will not affect the Government's ability to wind up NZVIF once its objectives have been achieved*

NZVIF Ltd was structured specifically to ensure that investment decision making was kept at arm's length from government and its agencies and undertaken by the private sector.

[88] POL (02) 114, paragraph 18, pg 4.

8.2 Costs of delivery and efficiency

Background

Prior to NZVIF Ltd becoming a Crown-owned company on 1 July 2002 and taking over the management of the VIF budgeted operating costs were $450,000 (GST excl) per annum [CAB (01)12/6(38) refers]. However, according to Cabinet papers this budget was likely to be exceeded in the 2001/02 year.[89] In fact, actual costs for 2001/02 were $1.9 million (GST exclusive), significantly over budget. This reflected the significant level of establishment activity required in order to get the programme underway.

When NZVIF Ltd was incorporated in 2002 budgeted operational funding increased to $1.332 million (GST excl.) with a further $311,111 set aside as a contingency. However, according to Cabinet papers at the time these costs were expected to reduce dramatically after 2002/03. Operational funding was set to be reviewed in the 2003/04 budget.[90]

In table 8.2(a) NZVIF Ltd's operational funding for the VIF since fiscal year 2001/02 is detailed.

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[89] In-between the foundation Cabinet paper detailing the design of the VIF in May 2001 and a subsequent Cabinet paper proposing modifications in November 2001, annual operating costs were expected to escalate to $1.413 million (GST excl). The costs were comprised of $381,300 for Board costs, $410,000 for secretariat costs, $452,400 for expert advice and $169,700 for administration expenses. In the same Cabinet paper it was stated that annual costs would decline in subsequent years with operational costs expected to reduce to $1.08 million (GST excl) in 2002/03 and further in the years following.

[90] Refer paragraph 36 of Cabinet paper [CAB POL (02) 114] as prepared by MoRST.

Table 8.2(a) NZVIF Ltd operational funding for the VIF (GST exclusive)[91]

Fiscal years	Original Budget ('000s)	Actual Treasury appropriation ('000s)			Actual spend according to NZVIF Ltd ('000s)
		Vote RS&T	**Vote ED**	**Total**	
2001/02	$450	$1,899[92]		$1,899	
2002/03	$1,332	$1,531[93]		$1,531	$1,500
2003/04	$1,332	$1,080		$1,080	$1,006
2004/05	$978	$1,100[94]		$1,100	$987
2005/06		$373	605[95]	$978	$841
2006/07			$1,178[96]	$1,178	$920
2007/08			$1,178	$1,178	$921
2008/09			$1,403[97]	$1,403	$1,053
2009/10			$1,262	$1,262	$1,039[98]
Total		**$5,983**	**$5,626**	**$11,609**	

Source: Treasury documents and NZVIF Ltd

NZVIF Ltd received a 19 percent increase in operating budget in 2008/09 for the VIF and increased their actual expenditure in that year by 14 percent. In 2009/10 all government agencies were required to achieve cost savings of 10 percent so the operating budget for

[91] Appropriation and budget figures are as per Treasury Budget documents, refer to www.treasury.govt.nz/budget/archive. This reference also includes the budgeted/actual costs for the first year of operation for the VIF for 2001/02 prior to the establishment of NZVIF Ltd as a Crown entity company in 2002.

[92] This figure is comprised of $449,777 original budget plus $1.212 million additional funding taken from Vote RS&T Output Class 08 (Tech NZ - $248,889) and Output Class 09 (Grants for private sector R&D - $963,556) plus a $236,444 share of MoRST budgeted overheads.

[93] Appropriation reflects the transfer of $1.332 million from the Departmental Output Class Venture Investment Fund - Governance and Operation to recognise NZVIF Ltd's establishment as a Crown-Owned company, and a transfer of $301,333 from the Technology New Zealand Output Class. $102,222 was transferred to 2003/04 budget.

[94] In 2004/05 Budget Treasury transferred from producing its budgets as GST inclusive to GST exclusive.

[95] In 2005/06 agency responsibility for the VIF was transferred from Vote Research, Science and Technology ($605,000).

[96] $0.978 million transferred from MoRST to MED operational budget for VIF, and $0.2 million for market development [Cab Min (06) 11/7(17)].

[97] This figure is based on file notes between Treasury and MED where Treasury asked MED for more detail as to what the $700,000 budget bid for increased operating expenses for NZVIF Ltd (for both VIF and the SCIF) were to cover. Specifically, $250,000 was for larger than expected operating costs for the SCIF and the remaining $450,000 was for small incremental increases in salaries and operating costs that had occurred over time and had not been reflected with a commensurate increase in NZVIF Ltd's operational budget. Half of the $45,000 was apportioned to VIF.

[98] Expected.

VIF was decreased accordingly. NZVIF Ltd expects VIF operating expenditure to be within budget in 2009/10 and they are forecasting cost savings of 1.3 percent on their previous year's expenditure.

8.3 Has the programme represented value for money?

In order to provide comment on the value for money of the programme, an understanding of the costs associated with the activities described in section 6 is needed. These are the costs associated with the selection of funds, the monitoring of existing funds, and the other market development activities that NZVIF Ltd carry out in relation to the venture capital industry.

In 2005/06 NZVIF took on management responsibility for the SCIF. In terms of operational expenditure NZVIF Ltd advise that they separate out the direct costs attributable to the VIF and the SCIF but indirect operating costs are evenly split between each programme.

With the exception of NZVIF Ltd's first year of operation (the costs of which were largely inherited), NZVIF Ltd's operating costs have been within budget. Increasingly, over time, they have also underspent funds appropriated to them for the VIF. (Data provided by NZVIF Ltd indicate they have used the underspend to cover their operations for the SCIF). However, in line with increases in Vote Economic Development appropriations, there has been an increase in operating costs for the VIF since 2006/07.

In table 8.3(a) the operating expenses for VIF are broken down into direct and indirect expenses. Over 2006/07 to 2008/09 most of the increase in operating costs have been attributable to an increase in direct expenses. Using information on combined costs for the SCIF and the VIF from NZVIF Ltd's Quarterly Reports it appears that the main areas of growth in expenditure have been in market development and salaries. Increases in indirect costs are attributable to increases in product development and general administration.

Table 8.3(a) VIF operating expenses (GST exclusive)

Fiscal years	Direct costs	Indirect costs	Total costs
2006/07	$445,057	$475,148	$920,205
2007/08	$458,000	$462,500	$920,500
2008/09	$541,943	$510,586	$1,052,529
2009/10	$489,274	$549,901	$1,039,175[99]

Source: NZVIF Ltd

Without more detailed allocation of costs it is not possible to determine if a reduction in activity by NZVIF Ltd has occurred as per policy expectations (i.e. the primary activity was expected to be the establishment of private venture capital funds and, once that has occurred, NZVIF Ltd were to focus on monitoring of funds and reporting, as required, to shareholding Ministers). If it has, it is also not possible to determine whether any cost savings have been used to increase market development activity or if the funds have been used for activities related to the SCIF.

[99] Expected.

Although the venture capital market is still considered to be in its infancy, it would be valuable for NZVIF Ltd and MED to clarify what market development activities (outside of the investment into venture capital funds and associated monitoring) are required from NZVIF Ltd. In this way funding and activity will clearly reflect policy expectations. There have been some instances where NZVIF Ltd has engaged in market development initiatives that, had they eventuated, would have been outside of policy expectations and NZVIF Ltd's remit.[100] As the NZVCA has established itself as the voice of the industry there is the possibility that government can step back from some of its activities. (This would be in line with the catalytic role that was envisaged for NZVIF Ltd where the cost allocations would change over time.)

Given this government's stated objective to drive value for money from its spend, it may be opportune to review the range of work undertaken by NZVIF Ltd in administering the VIF funds. While MED fully acknowledges that there is a considerable burden placed on NZVIF Ltd in terms of reporting, governance and compliance, this is not to say there may not be an opportunity to review all the requirements placed on NZVIF Ltd in this regard and determine those which may be unnecessary and offering little additional value. When considering some of NZVIF Ltd's market development activities, there may also be opportunities to improve the effectiveness of government spend by refocusing activities or transferring money to other priorities.

For example, as discussed in section 5.1, in 2008 NZVIF Ltd decided to largely bring the due diligence process around the selection of fund managers in-house as they considered that they had developed the requisite skills and capability and that it would be more cost-effective to do so. Given that overall operating costs have not declined it is difficult to identify the cost savings from bringing the due diligence in-house. Also, NZVIF Ltd salaries, and presumably FTEs, have grown steadily from $320,000 in 2003[101] to $1.045 million in 2009[102].

[100] For example, a proposed commercial Fund of Funds in 2007 (refer to box 9.3) and a fee-for-contract PE and venture capital advisory service in early 2009. Also, for an extended period of time during 2008 and 2009 NZVIF Ltd stated on their website (www.nzvif.co.nz), "we develop investment products across the New Zealand private equity market."

[101] NZVIF Ltd Annual Report 2003, pg 23.

[102] NZVIF Ltd 30 June 2009 Quarterly Report, pg 4.

NZVIF Ltd views on value for money

As NZVIF Ltd has already pulled back on several areas of activity over recent years, there is very little leeway for changes in operating activity. Of the $490,000 of direct expenditure and $550,000 of shared expense (fund administration, audit, D&O insurance, accounts management, share of office and related costs, legal, board, reporting, IT etc) there is a high level of fixed costs relating to the liability and fund structure.

8.3.1 Comparison of costs

Benchmarking within the market allows some comparison of indicators of value for money. NZVIF Ltd operates a form of a Fund of Funds model for the VIF (commonly referred to in the academic literature as a hybrid fund). However, there are some important distinctions between a commercial fund of funds and the VIF as displayed in the following table.

Table 8.3(b) Fund of Funds models

Private Sector Investment Fund	Venture Investment Fund
Work to attract investor capital to manage – usually achieved by demonstration of ability to deliver returns and market reputation.	Capital is provided by the Crown in defined ratios to match private capital.
Selects funds to invest in based on their track record and to achieve agreed investment strategy (e.g. conservative, growth, aggressive).	Selects funds to invest in based on their risk profile and focus and meeting VIF venture capital fund manager criteria.
Will actively monitor the performance of the funds and manage the portfolio accordingly, i.e. will move monies in and out of funds as sees fit and based on performance.	Monitors fund performance but is not mandated to move funds out of a fund unless there is a clear breach of investment terms. It can not move funds in and out based on performance.
Objective is to earn premium returns for investors thereby ensuring investors continue to invest with the fund manager.	Objective is to catalyse the venture capital market in New Zealand and is not required to maximise returns to the Crown.
Fund manager is compensated with a share of the carry based on superior performance and usually has own capital invested.	No share of carry and no commercial performance targets

Source: MED

Industry standard charges to an investor for the active management of a commercial Fund of Funds and the monitoring of investment performance tend to be in the range of 0.50 - 0.75 percent per annum of funds under management for retail customers, dropping to 0.25 - 0.5 percent for wholesale clients. This fee is in addition to the fund management fees charged by the funds the Fund of Fund invests into.

The VIF venture capital fund managers draw management fees from investors' committed capital of between 2-3 percent per annum over five years, reducing on a sliding scale over the remaining years to reflect the decreased investment activity. To date, these fees have totalled $11.58 million.[103] The extent to which these management fees, which are paid out of the VIF budget, can cover the majority of the costs of providing the information required to fulfill NZVIF Ltd's monitoring role needs to be confirmed.

The cumulative operating expenses for the VIF to June 2009 are $10.3 million[104]. Thus far, NZVIF Ltd has committed capital of $109 million across six VIF venture capital funds and made $51 million in conditional commitments to another three venture capital funds. If the capital commitments for the Annex Fund that are dependent on matching private sector capital are excluded, committed capital equates to $95 million Of NZVIF Ltd's committed capital (actual and conditional), $72.5 million[105] has been drawn down and invested into companies. As it currently stands, NZVIF Ltd's cumulative operating expenses are around 11 percent of the committed capital (using committed capital of $95 million), or 1.36 percent per annum for the past eight years[106]. While MED acknowledges the significant role that NZVIF Ltd has played in raising the profile of venture capital in New Zealand, in co-ordinating the industry and promoting and marketing it, given its current role it is difficult to see a rationale for continued expenditure at this level.

A broad comparison with private sector benchmarks for managing a programme such as the VIF would suggest a figure of 0.75 to 1.0 percent as reasonable, given the newness of the market and the need for public good activity. However, we should expect to see a decline in costs as the programme moves through its lifecycle.

NZVIF comments on Comparison of Costs

It is important that the measures used are fair, both in respect of properly applying any industry comparators, but also in regard to the additional costs related to specific subsidiary structures required to be put in place for each new fund (this is not industry norm, but shields the Crown from liability). These costs include D&O insurance, audit, accounting, legal. The legal is one off at the time the subsidiary is established, but all the others are additive. This is a constitutional requirement.

Across both the U.S. and European Funds (using a sample size of 50) an average Fund of Funds fee is 0.9 percent and the median fee is one percent.[107]

[103] Taken from NZVIF Ltd Annual Reports 2003/2008 and June 2009 Quarterly Report

[104] This is from 2001/02 financial year when the VIF was first established, through to June 2009.

[105] This figure is calculated from total NZVIF Ltd investment in table 7.2(b) less investment via the IO Fund.

[106] We have used the committed capital figure rather than the $160 million as requested by NZVIF. The Crown capital resides with Treasury until such time as there is a call by a VIF Venture Capital fund manager for capital.

[107] These fees are calculated based on investor commitments – for NZVIF Ltd this is the $160 million committed by the Crown.

Comparisons to Australia

A similar Australian programme offers some useful points of comparison. In September 2007 the Australian government established Innovation Australia, a new Board to streamline and enhance the administration of the government's suite of innovation and venture capital programmes. The Board is an independent statutory body invested by the Government to oversight the administration of its innovation and venture capital programmes. The Board administers these programmes through a number of committees that assist with the consideration of applications received under the innovation and venture capital programmes.

The Board also engages in activities which support its decision-making and advisory functions. These include being involved in key programme outcomes and contributing its views and practical advice in relation to the programmes for which it is responsible to the Minister. Committee members are appointed by the Minister and drawn from industry and academia and have commercial and technical qualifications and experience. Programmes that the Venture Capital Committee oversees are shown in table 8.3(c).

Table 8.3(c) Programmes overseen by the Venture Capital Committee

Programme	Timeframe	Funding	Grant, Investment or Tax
Commercial Ready	2004 - 2011	$290,000,000	Grant
Pooled Development Funds	1992 - 2007		Tax
Early Stage VC Ltd Partnerships	2007 -	$0	Tax
VC Limited Partnerships	2002 -		Tax
Renewable Equity Energy Fund	1997 -	$17,700,000	Investment
Pre-Seed Fund	2001 -	$72,700,000	Investment
Innovation Investment Fund	1997 -	$420,700,000	Investment
Total		***$801,100,000***	

Source: AusIndustry

All financial decisions are made by the government department (AusIndustry) not the venture capital committee or Innovation Australia. Innovation Australia (or its committees) do not make policy - they are there to provide independent expert advice to the Minister. All policy is developed by AusIndustry. The Innovation Australia board and venture capital committee members get paid a sitting fee for the days they meet. There are six members on the venture capital committee. Innovation Australia does not have a physical address - it meets at the Canberra or state offices probably six to eight times a year. All administration for Innovation Australia is carried out by a secretariat in the department (i.e full-time government employees). Members are appointed by the Minister for terms up to five years and are appointed for their industry experience and knowledge. Note: fund managers for the Innovation Investment Fund programme are identified (from applicants) by the venture capital committee. AusIndustry manage all seven venture capital programmes. There are around 12 people in the two sections (one section for equity programs and one section for tax based programs). AusIndustry plan for the amount of staffing required for a fund to steadily diminish over the life of the fund.

Based on historical costs and experience in establishing a venture capital programme, AusIndustry estimate total costs of around two per cent of a $100 million fund for the first three years of the fund (i.e. 0.67 per cent per annum). Their experience is that these costs continue to decline through the life of the fund as the main initial costs are legal and expert due diligence.

Key personnel of Towers Perrin were selected by AusIndustry to undertake the due diligence on prospective fund managers for round one of the Innovation Investment Fund. This team later became part of Wilshire Associates (an independent consulting firm). Wilshire Associates continued to provide due diligence services to AusIndustry until early this year.[108] Other external groups have also provided due diligence services, most recently Barwon Investment Partners. Fund managers can only access government funding for one fund.

8.4 Opportunities to improve the effectiveness of the programme

NZVIF Ltd outputs

MED recommends that the scope of NZVIF Ltd's outputs be clarified to exclude activities that do not relate to the core functions of selection of fund managers, monitoring the operations of supported funds, and specific activities to support market development.

The Board of NZVIF Ltd is responsible for delivering the VIF on behalf of the shareholding ministers.

Relationship between MED and NZVIF Ltd

MED has policy responsibility for advice on the government's interventions in the venture capital market. MED consults NZVIF Ltd, and others, on policy issues, but is responsible for any advice given to the Minister for Economic Development.

The basis for the relationship between MED and NZVIF Ltd is that set out in the Output Agreement between NZVIF Ltd and the Minister. The relationship is expected to be co-operative rather than compliance based. MED and NZVIF Ltd should "jointly identify and resolve problems that arise in the course of business and adopt a "no surprises" approach to information sharing".

In general this is how the relationship currently operates. MED and the CEO of NZVIF Ltd have fortnightly half-hour "catch-up" discussions that provide a mechanism for building the type of relationship envisaged in the Output Agreement. There are other face-to-face

[108] During the establishment phase of VIF, NZVIF Ltd staff and the Board Chair met with the original team that undertook due diligence and formed a working relationship. Wilshire agreed to undertake due diligence services on behalf of NZVIF Ltd.

meetings. These include longer meetings that are more in the nature of a strategic overview. MED also provides comments on compliance documents, including the Output Plan and SoI.

There have been some missteps along the way. For example, MED was late in including NZVIF Ltd in the new Government's value for money exercise and there were some miscommunications over the expectations of NZVIF Ltd in respect of cost-saving measures. On the other hand, NZVIF Ltd has not always informed MED of new initiatives in a way that would allow MED to provide considered advice to the Minister. For example, the proposal to introduce the Annex Fund and the proposal early in 2009 to provide investment advice to a pension fund. The Board of the Chair of NZVIF Ltd suggests that it would helpful when NZVIF Ltd has any innovative ideas on how to develop the venture capital to sit down with MED to look at how far reaching the effects on government could be.

8.5 Future capital funding

Good progress has been made in building and developing a local venture capital market. This is evidenced by our move from 19th placing in OECD rankings in 2004 to 12th in 2007. Venture capital as a percentage of GDP has grown from 0.01 per cent in 2004 to 0.04 per cent in 2007. However, the relative immaturity of the New Zealand market and current depressed state of venture capital markets worldwide suggests that government support is still required.

With the NZVIF Ltd model, government stands behind the commercial judgement of selected private sector fund managers and investors, contributing capital and altering the expected risk/reward balance through mechanisms such as the buy-out option. It cannot much alter the appetite of the private sector to undertake venture capital investment, however, and it is not clear how great this appetite will be over the next year or two.

Currently no capital is available to be committed to new funds. Therefore, there may be a need for government to signal that it is willing to provide fresh capital for VIF to maintain market activity related to the establishment of new funds and investment into new early stage companies (as opposed to follow-on investment). The funds that became operational in 2003 will terminate at the earliest in 2013, at which point the invested capital (plus or minus any return) will be returned to NZVIF Ltd (and, therefore, the Crown). Early sales of companies and the use of the buyout option may release capital back to NZVIF Ltd earlier and decrease the need for further capital from government, however, the extent of such repayments is not easily predicted.

Furthermore, as a consequence of the success of the SCIF programme and a very active and vibrant angel market a large number of SCIF investee companies are reaching the stage where they require venture capital funding.

On the basis of the changes in scope and direction as set out above, MED recommends that, subject to a satisfactory business case, the government commit up to $40 million capital to the VIF and/or allow further lending from the existing capital base via a further application round in 2010. To facilitate market development and grow the market base MED propose that at least two funds supported by the VIF in the future should be 'new' funds, representing an increase in the number of venture capital fund managers in New Zealand.

9. Other factors to improve the quality and dynamics of the venture capital industry

In this section three aspects of the environment within which venture capital firms operate that are important to the functioning of the venture capital industry are discussed. First changes in New Zealand's taxation policy that have assisted the venture capital industry are discussed. Second the co-dependencies between the VIF and other government programmes are higlighted. Third the relationship between New Zealand's institutional investors and venture capitalists in New Zealand is explored.

9.1 Taxation Policy

Taxation policy affects the supply of venture capital through clarity on how returns will be treated, the similarity of tax treatment across countries and the overall return achieved on venture capital investments.

Meyer (2007) notes that academic research and anecdotal evidence suggest that to promote and support a venture capital market taxes should be lowered, regulatory roadblocks eliminated, and a more favourable overall business climate established.

Three tax-related issues have been addressed over the period that the VIF has been operating. They cover tax on inbound and outbound investment and the creation of limited liability partnerships. The issue of taxation of returns that the venture capital funds make is unresolved.

9.1.1 Tax law on inbound investment

There was a risk that returns (in the nature of share gains) from investing in PE could be considered as income and therefore subject to income tax law. This was perceived as discouraging overseas investment into New Zealand venture-type companies.

This issue was addressed in two respects:

1) The introduction of a general provision for overseas investors in New Zealand PE that focused on taxation rules in the country of origin. If the investors were exempt from taxation in their country of origin, their share gains would also be exempt in New Zealand. Not doing so would discourage investment. However, if investors are usually taxed in their country of origin then the exemption would not apply as there would be no disincentive.
2) A specific exemption for overseas investors in VIF venture capital funds where the exemption above is extended to all overseas investors, regardless of the tax treatment in the country of origin.

9.1.2 Tax law on outbound investment

There was concern around the application of the Fair Dividend Rate (FDR) to New Zealand investors with an interest in certain offshore companies. In some circumstances, New Zealand venture capital and PE companies are required to re-locate parts of their business overseas to secure funding from other non-New Zealand venture capital funds. This results in the company concerned legally becoming an overseas company although the economic substance of the company may remain in New Zealand.

To address this issue a ten year exemption from FDR was created for New Zealand investors in companies where such a migration has occurred. The exemption does, however, have criteria around the company's ongoing presence in New Zealand.

Some investors believe that the current criteria are too strict.

An additional wider exemption from FDR was added later to accommodate New Zealand investors who invest in an offshore venture capital/PE company through a venture investment agreement with the VIF.

9.1.3 Limited liability partnership

The introduction of the Taxation (Limited Partnerships) Act 2008 allowed fund managers to structure their funds as limited liability partnerships that were more recognisable to overseas investors. It effectively streamlined the process for allowing the returns to flow through to the investors, where income tax rules would apply to the investors rather than at the company/fund level. It also provided clearer protection/limited liability to limited partners (passive investors) in venture capital funds.

9.1.4 Capital gains

For domestic investors, the uncertainty of what tax liability they could face once the funds terminate still remains. This uncertainty may hinder fund managers in the process of securing investors as they are unable to provide clarity around how returns will be treated and therefore the expected return on investments.

The issue of whether returns are considered in the revenue or capital account is compounded by the returns expected. If the funds were to have negative returns then it would be beneficial to those involved to have these considered in the revenue accounts to offset them against positive returns elsewhere. However, if the returns are positive then it would be beneficial to those involved to have them considered in the capital account to minimise taxation.

At the time of writing (November 2009) capital gains issues were being considered by the Capital Markets Development Taskforce and the Victoria University of Wellington's Tax Working Group.

9.2 Co-dependencies with other government programmes

The government is involved with the development of early-stage companies through a number of programmes that provide either funding or services. The Foundation for Research Science and Technology (FRST) and the Ministry of Research Science and Technology (MoRST) policy agencies provide grants to universities, CRIs and companies for research, product development, and commercialisation. After the initial product development phase company assistance can also be obtained from New Zealand Trade and Enterprise (NZTE). Assistance from NZTE comes in many forms from developing knowledge and expertise to assistance for finding funding. In the area of early-stage equity financing – the area the VIF is targeted – there is also the SCIF also administered by NZVIF Ltd.

The interaction of the VIF with these other government programmes will be the subject of a separate evaluation report in collaboration with the agencies responsible for policy and implementation of these programmes. Issues that emerged during the course of this evaluation are discussed below.

Both the VIF and the SCIF are designed to increase the provision of capital to early-stage companies. When considering the interaction of the two programmes, a number of issues emerged – is the capital distribution between the two programmes correct and is the balance between early-stage financing and the opportunities in the market appropriate? Also, are there migration issues between the two sources of funding?

Table 9.2(a) below highlights government funding received from FRST and NZTE by VIF investee companies. In total, 37 of these companies have also received funding from FRST and/or NZTE, with this funding totalling just over $31 million. This is just under half the amount invested by government into companies via VIF.

Table 9.2(a): FRST and NZTE funding of VIF investee companies

	FRST funding as at Feb 2009	NZTE funding as at Jan 2009	Total
Total funding	$ 24,989,362	$ 6,249,342	$ 31,074,720
Average	$ 757,253	$ 240,359	$ 839,857
Number of companies	33	26	37

Source NZTE and FRST[109]

Interview feedback

Venture capital industry participants viewed interventions such as the SCIF, the Incubator Support Programme, Escalator, and Beachheads as having played an important role in developing the venture capital industry. These other programmes are part of the pipeline of intervention that assist venture capital activity and the development of companies. However, there could be better alignment with incubators, commercialisation offices and angel investors, NZTE and Investment New Zealand. Better alignment with these individuals and organisations would help to develop the commercialisation route and assist companies to be investment ready for both New Zealand and offshore investors.

Most respondents involved in investing in early-stage companies agree that, despite investor ready programmes like Escalator, there are still mismatches between realistic business valuations and expectations of entrepreneurs.

[109] Programmes accessed New Zealand Trade and Enterprise: Enterprise Development Grant Market Development (EDGMD), Australia New Zealand Biotechnology Partnership Fund (ANZBPF), Growth Services Fund (GSF), Enterprise Development Capability Building (EDGCB), Strategic Investment Fund (SIF), and Job.
Programmes accessed Foundation for Research Science and Technology: TechNZ Capability, Grants for Private Sector Research and Development (GPSRD), TechNZ Technology, SmartStart, Technology for Business Growth (TBG), TechNet (NZ expert access), and Technology Fellowship (TIF).

9.3 Institutional funding

Securing ongoing investment from institutional investors is essential to the sustainability of the venture capital industry and is a core source of capital for venture capital funds abroad. Such funding would dramatically increase the overall pool of venture capital for investment in New Zealand, thus allowing more funds to enter the market and increase the overall size of individual funds.

To date, venture capital fund managers have had limited success in attracting institutional investors. NZVIF Ltd, in their SoI, report that "venture capital fund managers raising capital in New Zealand have as yet been unable to attract significant local institutional investor support."

Currently, the Accident Compensation Commission (ACC) has invested in the VIF venture capital funds and some of these funds have also received community trust funding. As yet, only some PE funds (distinct from venture capital funds) have been successful in attracting substantial institutional funding.

Interview feedback

During our interviews MED explored why institutional investors do not invest more in venture capital. The issues raised are summarised below. MED has not attempted to indentify themes by type of institutional investor, as many of the issues below were raised by multiple institutional types.

<u>Prudent investment approach</u>

Institutions and advisors are not interested in economic development in itself. Both fund managers and others interviewed indicated that the lack of track record of fund managers was a serious hurdle to overcome when raising capital. Institutions and advisors are dealing with other peoples' money and so have to be able to defend their investment decisions and advice – without a history of returns achieved the decision to invest in New Zealand venture capital funds is not defendable. The risky nature of venture capital and long investment horizon reinforce this stance.

Where a decision has been made to invest in venture capital overseas venture capital funds are seen to offer better opportunities because of their track record and diversification.

<u>Internal obstacles to institutional investment</u>

Institutions themselves can have a number of internal obstacles that limit their ability to invest in New Zealand venture capital funds.

Institutional investors have investment strategies and portfolio restrictions on minimum and maximum investments. These can impact on institutions in different ways. For some institutions the amount of money they have to invest in order to justify their carrying out due diligence on venture capital funds could result in them owning the entire venture capital fund. For others the cost of due diligence on venture capital funds is too large given the investment they would make. For example, for a small institution or community trust – if they have a $30 million fund and decide to invest ten percent in alternative assets, $3 million will need to be spread across a series of funds/investments – which is not viable. More generally, for the smaller institutions limited resources are a constraint on being able to assess a wide variety of asset classes.

Presently MED understands that institutions are overweight in PE. So, even if they are sympathetic about investing in venture capital, they would be constrained by the larger percentage of their portfolio that venture capital would constitute.

Institutions other than those administering annuities or state pension funds typically have a shorter-term focus than the ten year horizon of venture capital funds and most will have to be able to liquidate their investments within this period. For example, if someone changes jobs, defined contributions in Pension Funds need to be transferred to another provider or paid out (this is not the case with KiwiSaver arrangements). Similarly the trustees in Charities and Community Trusts change every four years so they are hesitant to lock in investment decisions for ten years. They often also prefer capital preservation and income streams over the capital growth that venture capital funds offer. Many community trusts are required to deliver dividends back to the community annually.

Some New Zealand institutions are satellite offices of an overseas parent and therefore have limited powers to invest locally in alternative asset classes like venture capital.

Role of advisors

The role of asset advisors may be important for encouraging institutions to invest in venture capital.[110]

However, there is a question as to whether advisors are motivated to direct investment to venture capital. Advisors tells us that they suggest venture capital as part of a diversified portfolio which includes alternative assets (versus individually). However, it is likely that the venture capital funds are too small, are seem as too complex by their clients, and the due diligence costs too high.

Solutions

Two possible solutions offered by venture capitalists to try and increase institutional investment relate to decreasing the cost of due diligence. They include subsidising the cost of due diligence and the establishment of a Fund of Funds. However, neither solution addresses the problem related to lack of a demonstrated track record of venture capital funds (for example, see Box 9.3).

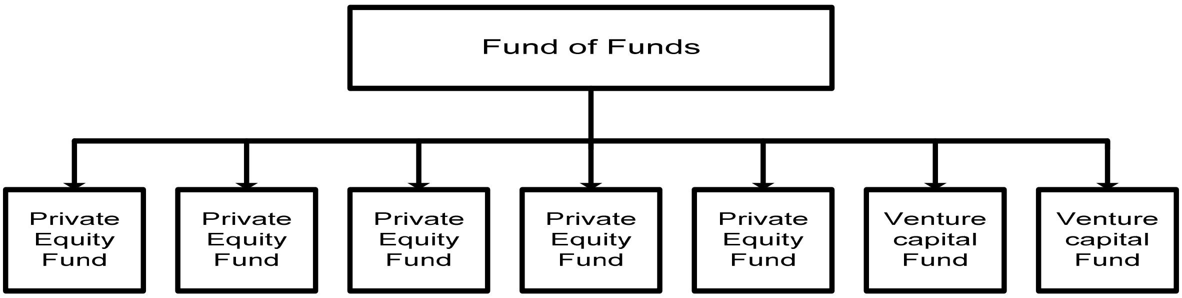
Leadership was also seen as way to encourage other institutions as investors tend to be followers. The NZ Super Fund is seen as a key candidate to “lead” investment in New Zealand venture capital. It is likely that offshore institutions will not invest in New Zealand venture capital until local institutions do.

Overall, whereas overseas investment from Fund of Funds and Pension Funds make up approximately 50 percent of the investor base, (refer to figure 5.1(a)), it is not likely that large institutions will enter New Zealand’s venture capital market any time soon.

[110] None of the advisors we spoke with earn commission from their advice.

Box 9.3: A commercial Fund of Funds

By early 2007, NZVIF Ltd had, for some time, expressed its concern over the reluctance of institutional investors to support the New Zealand venture capital market. These investors have generally not shown interest in venture capital investment for a number of reasons, primarily a lack of track record of exits for venture capital fund managers, the illiquid nature of the asset, limited opportunities for building a diversified portfolio, and their own lack of suitably skilled people. To encourage the support of institutional investors, NZVIF Ltd proposed to develop a pooled funds product, otherwise known as a Fund of Funds. This Fund of Funds would raise capital from institutional investors and high net worth individuals and invest in a selection of private equity and venture capital funds as per the figure below.



When the idea for a Fund of Funds was first mooted with the Minister the proposal was that the Fund of Funds would invest 70 per cent in private equity funds with 30 per cent invested in venture capital funds. By March 2007, NZVIF Ltd had progressed some way in their research on a Fund of Funds and had held discussions with industry players, including the NZ Super Fund. According to NZVIF Ltd, it become evident during these discussions that, in order for a Fund of Fund offering to have credibility in the market place, it would likely need to be run as a separate commercial operation with all the risk/reward remuneration incentives commonly associated with private sector fund managers (such as a personal capital commitment from the fund managers in return for a share of the profits, or carry).

Furthermore, because the Fund of Funds would be a purely commercial undertaking, its main objective would be to deliver a return to investors. Therefore it was considered unlikely that much of the fund would be invested into venture capital funds (10 percent maximum). From a policy perspective, it became difficult to see the value in government underwriting such a product. There was, and is still, a very active PE market in New Zealand. The NZ Super Fund has been, and remains, an investor in NZ PE funds. In MED's interviews with market participants and industry players, the overwhelming majority did not consider there to be a policy rationale for government to intervene in the PE end of the market. The recently appointed Chair of NZVIF Ltd's Board agreed the proposed structure was inappropriate and intervened to remedy.

For an extended period in 2008 and 2009 the NZVIF Ltd website (www.nzvif.co.nz) stated "currently we are undertaking research for a New Zealand Private Equity Fund of Funds". It also stated "we develop investment products across the New Zealand private equity market".

Research undertaken by NZVIF Ltd in 2007[111] also looked at the reasons that have led to low institutional investment in venture capital. They found:

- Of the institutions they interviewed, only two large institutions had dedicated staff looking at opportunities in PE and alternative assets, The fact that other institutions do not look at the opportunities in PE and alternatives in general in a structured manner has contributed to a lack of focus on, and understating of, PE in New Zealand.

- Any product that institutions invested in would have to address issues of liquidity and provide access to a full range of PE and venture capital opportunities in the New Zealand market. In this respect a full PE programme was seen to be essential. Solely focusing on venture capital would not result in an acceptable risk return profile to institutional investors.

- Securing a cornerstone institutional investor (to aid fund raising), the backing of asset consultants, and offshore institutional backing (to give credibility) were seen as key factors to encouraging institutional investment in New Zealand venture capital.

- NZVIF Ltd see a lack of scaled significant institutional funds in New Zealand as a key impediment to significant investment in PE. Institutions they spoke with were constrained in their ability to make large allocations and did not have the resources or people to adequately address this asset class.

[111] In undertaking this research NZVIF Ltd spoke to over 40 parties including institutional investors, fund managers and managers of fund of funds in the New Zealand and Australian markets.

10. Conclusions and recommendations

10.1 Conclusions

What is the observable impact of the Venture Investment Fund on the market to date?

- The VIF has had a significant impact on the level of venture capital activity in the market through its investment and associated activities. However, little can be said of the quality of the activity that they have supported at this stage. Investment through the associated six private sector venture capital funds represents a sizeable proportion of venture capital investments – both in terms of number of companies invested in and the value of those investments. As at June 2009 $220 million from the VIF venture capital funds have been invested across 48 companies.

- The quality and effectiveness of fund managers that have received investment from NZVIF can only be judged once the returns on the current funds have been demonstrated and new funds raised. (Comparing interim performance of the funds in aggregate against benchmark returns for funds of the same vintage indicates that their performance is similar to the median performance). In the interim from the fact that the fund mangers have gone through due diligence and raised capital in the market one could infer that the current fund managers have good skills and experience. Through the establishment of new venture capital funds the VIF has increased the number of skilled practitioners working in the venture capital industry, although with the absence of any new funds entering the market over the last three years the number has stayed constant. Most industry stakeholders thought that the VIF had encouraged learning and helped develop processes. This view is supported by evidence from MED's survey of VIF portfolio companies. MED is not able to say what impact the VIF has had on the number of skilled venture capital practitioners not associated with NZVIF Ltd supported funds, though growth in membership of NZVCA would suggest an overall growth in the number of market participants.

- Venture capital activity supported by the VIF is an important component of the New Zealand innovation system. As at 31 December 2008 deal flow from CRIs and universities had been low, yet the resulting investments represented almost a quarter of all companies invested in. The underlying reasons for the lack of commercialisation of research from CRIs and universities are likely to be unrelated to the operations of the VIF. Rather, there are much wider issues regarding the direction and degree of commercial orientation of publically-funded research and government's expectation for the organisations involved.

- Companies invested in by VIF venture capital funds who responded to MED's survey of VIF investee companies reported that they have been generally successful in their ability to raise capital, 88 percent of these companies expect to raise further capital within the next two years, and 69 percent are exporting.

What are the critical constraints to the development of New Zealand's venture capital industry?

- This part of the financial system is affected adversely by general problems related to low levels of national saving and dependence on foreign capital. Deal flow for potential investors is likely to be reduced by relatively low levels of business research and development and innovation.

- There is concern that with activity having slowed, the venture capital industry will find it difficult to regain its previous momentum. The global financial crisis has largely exacerbated pre-existing difficulties (most or all of which are experienced in other jurisdictions attempting to develop a sustainable venture capital market).

- By international standards, New Zealand's venture capital industry is still immature. New Zealand venture capital funds are yet to demonstrate a track record and adequate returns on investment. In addition, few divestments have occurred. The life of these funds is typically ten years so the track record of the first VIF funds will not be known until 2012/13 at the earliest.

- Securing and maintaining a flow of investment from domestic and international institutional investors is seen to be essential to the sustainability of the venture capital industry. Such funding would dramatically increase the overall pool of venture capital, thus allowing more funds to enter the market and increase the overall size of individual funds. (Some see the average size of VIF-supported funds to be too small to achieve economies of scale, provide sufficient follow-on funding and adequately pool risks. The required size will be greater in funds specialising in sectors where larger investments over longer periods are needed.) To date, uncertainty about the future performance of the VIF venture capital funds and a lack of track record are the main reasons for a lack of institutional support.

- As at 30 June 2009, of the total public and private capital that has been committed to the six VIF venture capital fund managers, $106 million of capital 'remained to be invested'[112] by them. By the end of 2010 only one of these funds will still be in its initial investment period where it can make new investments, with the other five concentrating on their existing portfolio and seeking follow-on investment.

- NZVIF Ltd has made conditional commitments to three new funds that are in the process of raising matching private sector capital and NZVIF Ltd expects these funds to begin operating in 2009/10 and 2010/11. Based on current and conditional commitments, NZVIF Ltd now has no capital available to commit to new funds.

NZVIF Ltd's implementation of the Venture Investment Fund

- Since 2008 NZVIF Ltd have placed greater emphasis on the in-house part of the process of due diligence of fund managers The capability to manage a stringent process of due diligence which is endorsed by the NZVIF Ltd Board and selects fund managers is central to NZVIF Ltd's role, but it has previously relied on independent

[112] MED understands that this money is committed to the VIF investment partners for investment into their portfolio of companies.

advice from internationally recognised experts in fund manager due diligence. The involvement of an external provider has delivered particular accreditation benefits and allowed connections to international networks The quality of due diligence on prospective fund managers is critical to the programme success and. NZVIF Ltd rightly see the overseeing of this work as one of their key functions. A publically acknowledged role for external advisers will contribute to the due diligence process continuing to be rigorous, objective and to an internationally recognised standard. The latter is particularly relevant with regard to the VIF policy objectives, most notably:

i. To attract new flows of private investment into the venture capital market – venture capital fund managers noted the substantial value they extracted from successfully undergoing external due diligence by an internationally recognised organisation. This assisted them in raising private capital both locally and off-shore.

ii. To crowd in the private sector and build capability in the market – NZVIF Ltd undertaking the due diligence of prospective fund managers and building up internal capability has the effect of constraining market development in the provision of due diligence by the private sector. It is difficult to see how a private sector provider would be able to compete, particularly when they would need to charge market rates but NZVIF Ltd have their costs underwritten by the Crown.

- It was originally intended that private sector fund managers would not approach NZVIF Ltd for investment unless they had first demonstrated that they could raise a significant portion of the required private sector investment. This provides an indication and market validation of the reputation and quality of fund managers. With the limited funds available in the VIF it is important that a demonstration of market-backing be re-instated and further practical steps could be identified by NZVIF Ltd as to how to go about this. This also recognises the well-publicised success of Venture Capital fund managers in capital raising and the better prospects for 2010 as capital markets become more buoyant.

- The current process whereby fund managers do not apply through a formal application round process may need re-consideration. Given the current situation of financial constraints, the simultaneous comparison of prospective fund managers through a formal application round process would both allow those fund managers most likely to meet the objectives of the programme to obtain scarce Crown capital and demonstrate that the investment is optimal from a national perspective.

- NZVIF Ltd’s negotiation process with fund managers has been thorough. Investor documentation is also lengthy but comprehensive. Private venture capital fund managers view NZVIF Ltd as being responsive, open and constructive.

- Overall, the consensus from fund managers is that NZVIF Ltd has played an active and constructive role in the on-going monitoring of investments.

- Implementation of the operational rules has, on the whole, been in line with Cabinet requirements.

- Consistent with the changes in the operational rule of VIF some investments have been in firms whose age and levels of trading income indicate a relatively well-established business with a clear market offering. However, these characteristics may have indicated a lesser need for government support, and/or that sources of finance other than the VIF would have been more appropriate and facilitated market development. MED therefore recommends a return to investing in early-stage companies (in particular seed and start-up companies).

Early versus late stage

- Over time there has been increasing attention given to follow-on funding, both in the context of the rules of the VIF (i.e. the Annex Fund) and the pattern of operations of private sector venture capital funds. While MED recognises the need for fund managers to retain the ability to invest funds into a portfolio company along its growth path, the Annex Fund investment was extraneous to that. Therefore, in purist terms, it should be invested at a ratio commensurate with the growth stage of the company at the time it was receiving Annex funding. It is our understanding from NZVIF Ltd that this has, in fact, largely occurred.

- The VIF venture capital fund managers have been able to increase the overall size of their funds by increasing the level of private investment and obtaining matching Crown capital. As long as committed capital from the VIF to each fund is no more than $25 million, NZVIF Ltd has matched these commitments. From a policy perspective, MED considers it important that once a fund has fully closed, that VIF's capital commitments remain as agreed at that time. This ensures that Crown capital goes to the point of greatest need.

- The buyout option seems to have been important in attracting private matching capital, particularly in the first investment rounds, but has only been exercised by one fund manager for the purpose of terminating the fund. Either the buyout option has not altered the risk/reward of investments, fund managers are unable to replace VIF capital with capital from the private sector or fund managers do not anticipate even a 'safe' rate of return on their funds.

- There is little evidence to suggest that the expanding of the investment ratios into later-stage investment have had a significant effect in generating the establishment of new funds. International experience indicates that this can add unnecessary complexity. Only one new fund has been established in the three years since the policy change. When VIF was established there was no market failure identified which would require this additional support. Private sector venture capital funds are able to ring-fence a non-NZVIF Ltd supported proportion for investment into these later stages if desired.

- MED's analysis of government involvement in venture capital around the world indicates that the main rationale for intervention is in early stage. This is supported by the majority of the associated academic research and literature. Industry stakeholders also draw a fairly strong distinction between early and late-stage investment as they involve different risk profiles and skill sets. Experience in other jurisdictions suggests that, over time and if permitted, government interventions in venture capital will drift to the later stage of the investment spectrum where it is easier and less risky.

- MED's interviews with industry stakeholders revealed an almost unanimous belief that there is not a role for government in the later-stage end of the private equity market and that there is no need for government to become active in this space.

Is the Venture Investment Fund currently offering value for money?

- MED's analysis indicates that NZVIF Ltd has spent approximately $10.3 million over the last eight years to deliver the VIF. In turn, NZVIF Ltd has made actual capital commitments of $109 million and conditional capital commitments of $51 million. In MED's view, there is an opportunity for government to work with NZVIF Ltd in identifying how to reduce costs and eliminate the unnecessary and burdensome compliance that has been imposed by the relevant government agencies.

- Besides managing the equity portion of the VIF, NZVIF Ltd has a wider role to help develop the industry. NZVIF Ltd has contributed to the development of the venture capital industry through their support of, and work through, the NZVCA as well as through contributing standardised documentation for some market transactions and agreements. Representation of industry perspectives has contributed to decisions leading to important changes in tax arrangements for inbound and outbound investment, and the creation of limited liability partnerships.

- NZVIF Ltd has also previously planned and embarked upon a number of market initiatives that appear not to have been essential to the core policy objectives of the programme. These raised questions both within government and the wider industry as to what the scope of their activities should be. The original policy had envisaged NZVIF Ltd as a passive investor with venture capital managers, being essentially one step removed from the market itself.

- The analysis in the report shows that NZVIF Ltd's core early stage investment work has produced clearly defined benefits consistent with policy. Given the importance of this work and the clear policy rationale that exists, non-core areas of activity, such as the provision of services currently available in the market and the development of investment products across the later-stage end of the private equity market, should be excluded from the scope of business.

What other changes could be made to improve the effectiveness of the Venture Investment Fund?

- The rationale for the VIF is strongest at the early-stage where the risk/reward profile on company investments is the steepest. Early-stage companies are more likely to have spillovers from research and development and investors are more likely to experience information asymmetries and have higher transaction costs when investing in these companies. These things make it more difficult for venture capitalists (along with other finance providers) to assess the risks involved in investing in early-stage firms. It is MED's view that future use of VIF capital be re-oriented towards early-stage activity (in particular seed and start-up companies).

- It is important that MED and NZVIF Ltd jointly identify and resolve problems that arise in the course of business and adopt a no surprises approach to information sharing.

10.2 Recommendations

It is MED's view that the VIF is an appropriate model for government intervention in the venture capital industry. To this end, MED are not recommending any substantive changes to this model. Rather, MED recommends policy be re-focused to where the rationale for government intervention is the strongest, and that the activities of NZVIF Ltd do not distort market development and crowd out the private sector.

10.2.1 Policy objectives

MED recommends that the overarching policy objective of catalysing the sector be re-confirmed, with milestones established for further evaluation in 2014 and with an objective of eventual exit after a further 10 years. The establishment of such milestones will support market confidence/clarity in NZVIF Ltd's role, this being vital to its investment relationships.

10.2.2 Programme funding and investment

The projected capital flows into and out of funds could see a period where NZVIF Ltd would not be able invest into any new funds until it receives a return from its existing investments. On the basis of the recommended changes in scope and direction as set out below, MED recommends that the agreement of the Minister for Economic Development be sought to allow further lending by the VIF by:

i. inviting NZVIF Ltd in consultation with MED to submit a business case for a further application round in 2010/11;

ii. inviting NZVIF Ltd to advise government on the basis of cost/benefit analysis of its Annex Fund to advise what uncommitted resources could be available for new venture capital; and

iii. subject to a satisfactory business case, committing up to $40m additional capital and/or allowing further commitments from the existing capital base to the round in 2010/11 including reprioritising funding, where visible, from later-stage investment.

To facilitate market development and grow the market base MED proposes that at least two funds supported by VIF in the future should be 'new' funds, i.e. not associated with current fund managers. Ultimately a vibrant venture capital market will have breadth as well as depth. To this end we need to work to grow a larger number of active venture capitalists in the New Zealand market.

10.2.3 The role of NZVIF Ltd

i. MED recommends that the agreement of the Minister for Economic Development be sought to clarify the scope of NZVIF Ltd outputs and exclude activities that do not relate to the core functions of the VIF. The government's venture capital intervention is likely to be most effective if it is tightly focused and avoids any perception that NZVIF Ltd are engaged, or planning to engage, in market activities which are not of an 'arms-length' nature.

ii. Further, MED recommends that the agreement of the Minister for Economic Development be sought to direct officials and NZVIF Ltd to assess the resources required to deliver such outputs compared to existing budgets.

10.2.4 Recommendations to emphasise the 'arms-length' basis of the programme in line with policy expectations

After seven years of operation, and when some tough re-financing decisions may be required, it is timely for the government to review what it expects from NZVIF Ltd's operation. Based on evaluation findings of developments to date MED recommends that the agreement of the Minister for Economic Development be sought to re-emphasise NZVIF Ltd's objective to remain at an arms length position from the market as a Crown entity co-investing in early-stage venture capital. In seeking changes to the VIF on an operational level MED recommends that the Minister for Economic Development invite NZVIF Ltd to work with officials to:

i. further support its key decisions on VIF investment partners by working with independent internationally recognised consultancy experts to undertake the due diligence. Such expertise should assist fund managers in raising capital, both onshore and offshore, and will also help attract private sector skills in venture capital due diligence;

ii. provided there is sufficient capital available, use regular funding application rounds but maintain discretion to operate outside of rounds if substantial new opportunities emerge;

iii. Implement a requirement that prospective fund managers demonstrate market backing through either:

- the ability to show evidence of significant private investment support at the time of approaching NZVIF Ltd for investment; or by
- limiting the time period for fund raising once VIF capital has been committed: Once NZVIF Ltd have conditionally committed capital to a fund, the fund manager actively raises capital in the market. However, it appears that currently there is no time limit on such capital raising. So as not to tie up the now limited funds in the VIF that could be committed elsewhere, MED recommends that NZVIF Ltd limit the time that fund managers have to raise funds in the market.

In making the above changes NZVIF Ltd is invited to engage with MED. MED recommends that the agreement of the Minister for Economic Development be sought to reference the agreed changes in a shareholding ministers' letter of expectation to the NZVIF Ltd Board.

10.2.5 Monitoring arrangements of NZVIF Ltd

MED recommends that the agreement of the Minister of Economic Development be sought for the Crown Ownership Monitoring Unit of the Treasury and MED to discuss the most appropriate monitoring arrangements for this Crown company, and make proposals to shareholding Ministers for any changes by end-February 2010.

10.2.6 Operating principles

i. The Cabinet requirement that NZVIF Ltd provide written advance notification to shareholder ministers when the initial capital shareholding limit in any one portfolio company is likely to exceed 15 percent is unnecessary and adds to administrative burden. Private sector fund managers are responsible for managing the portfolio of investments of a fund. MED recommends that the agreement of the Minister for Economic Development be sought to seek Cabinet agreement to dispense with this requirement.

ii. The variable investment ratios have added complexity to the VIF both for contract negotiation and for monitoring. The application of the investment stage rules may also have diverted funds from early-stage to later-stage companies. Given the limited capital available and the rationale for intervention assistance, MED recommends that the VIF be re-focused back on early-stage companies. MED recommends that the agreement of the Minister for Economic Development be sought to seek a mandate from Cabinet to restrict future NZVIF Ltd funding to investment into early-stage companies as per the Cabinet paper dated November 2001 (In that paper 'early-stage' investment included seed, start-up and early-expansion investments. However, investments in early expansion deals were only to occur to ensure the viability of the VIF and seed and start-up investments were to remain the main focus of VIF). This may have implications for additional funding for existing funds and arrangements such as the Annex Fund (which is to be reviewed by NZVIF Ltd at end 2009).

iii. MED recommends that changes in the form of the option to buyout NZVIF Ltd's investment, and other means of improving the risk/reward balance for investors be considered by officials (working in conjunction with NZVIF Ltd), and advice submitted to Ministers on possible changes by end March 2010.

iv. MED recommends that the restriction on the maximum level of NZVIF Ltd investment in a single fund be reassessed to allow larger funds to be supported. Officials (working in conjunction with NZVIF Ltd) should submit advice to Ministers on possible changes by end March 2010.

v. To encourage both new funds to establish and the transfer of skills, MED recommends that the agreement of the Minister for Economic Development be sought to direct NZVIF Ltd to commit capital to private sector venture capital funds up until the final close of a fund after which no new VIF capital commitments could be made.

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12. Appendices

12.1 Method

12.1.1 Data sources

Existing studies and data

The work for the evaluation commenced with a review of existing information. This included:

- a file review of policy documents and NZVIF Ltd records;
- a literature review of venture capital and its development and international evaluations of venture capital programmes;
- existing data on venture capital activity, both within New Zealand and overseas; and
- information on other, relevant government programmes.

The file review helped MED to understand the policy environment in which the VIF and NZVIF Ltd were established as well as the reasoning behind changes to the operating principles of the Fund. NZVIF Ltd records helped in understanding the implementation and delivery of the VIF, including the cost of outputs.

From the literature review MED learnt about the development of the venture capital industry, internationally, and how venture capital can assist economic development.

Data on venture capital activity helped to describe New Zealand's venture capital market and provided international comparisons.

Information on other, relevant government programmes helped in understanding the co-dependencies that exist between the VIF and other government interventions.

Survey

To source data on programme outcomes and help ascertain the level of programme additionality, where possible, MED conducted a survey on the companies that had received investment contributions from the VIF. The design of the survey was informed by the literature review and the survey questions were piloted with industry stakeholders. The survey was web based and was conducted between December 2008 and January 2009. The survey questions follow below.

As at 1st December 2008 45 separate companies[113] had received investment contributions from the VIF. Of these companies 37 were surveyed. Of the remaining eight companies, three are inactive, four have been sold and one company is now U.S. based and the VIF co-investment fund manager is not active in the company. 26 responses were received giving a response rate of 70 percent.

[113] One company received investment from two venture capital funds. This company was surveyed once.

Interviews

Interviews were conducted between December 2008 and June 2009 with the following stakeholders in the venture capital industry:

- managers of the six privately owned venture capital funds that co-invest with the VIF;
- key personnel in six other venture capital firms (five from New Zealand and one from Australia);
- representatives from four New Zealand private equity firms;
- the CEO of NZVIF Ltd and the Programme Manager of the VIF;
- members of the NZVIF Ltd Board;
- the head of the New Zealand Venture Capital Association;
- commercialisation managers of universities;
- representatives from CRIs;
- five angel investors;
- two independent investment advisors;
- a due diligence specialist;
- representatives from five institutional investment organisations; and
- stakeholders from the Treasury, MoRST, the Inland Revenue Department, and CCMAU.

The purpose of the interviews was to describe New Zealand's venture capital market; source data on programme outcomes and the operation of the VIF; to understand the interdependencies for the success of the VIF and to explore the future role of government in the venture capital industry. Examples of the questions asked in the interviews follow below.

12.1.2 Data limitations

The aim was to interview the key stakeholders to the venture capital industry as well as gather a range of views across the industry. In doing so, the information gathered is limited to the market participants that MED talked to.

Some of the survey data was re-coded. For example, some responses under the "other" category were re-coded to pre-existing categories and, if there were a number of similar responses within the "other" category, a new classification was created. The survey data was supplemented by data on government funding from NZTE and ForST.

12.1.3 Survey

The following are the questions asked in the survey.

Question 1: In what year(s) has your company received VC funding from [Fund Manager]?

Question 2: Was your business spin out from a...

tertiary institution
Crown Research Institute
another business
N/A - e.g. the business was a private start-up
other (please specify below)

Question 3: When you first received VC funding from [Fund Manager] were you generating sales at that point in time?

No
Yes

Question 4: What is the current age of your business (to the nearest year)?

Question 5: Please select the ONE option that best represents your main business activity or please describe your main business activity in the space provided if none of the options are appropriate

Manufacturing
ICT and Media
Professional, Scientific & Technical Services
Education & Training
Other (please specify)

Question 6: If you have accessed government support (financial and non-financial) for your business from New Zealand Trade and Enterprise or the Foundation for Research Science and Technology, please name the programmes below and an approximate date of when you accessed each.

Question 7: When [Fund Manager] first invested in your company what other sources of funding had you used?

Founders own resources (e.g., savings, mortgage)
Bank Loans
Friends and Family
Founding company/institution
Other VC funding (i.e not from [name fund])
International investors
Corporates
Other (please specify)

Question 8: Subsequent to the first capital injection from [Fund Manager], if you have used other sources of capital, what were they?

Founders own resources (e.g., savings, mortgage)
Bank Loans

Friends and Family
Founding company/institution
Other VC funding (i.e not from [name fund])
International investors
Corporates
Other (please specify)

Question 9: If you have used other sources of funding, approximately what percentage of total funding over the life of the business does VC funding from [Fund Manager] make up?

Question 10: How important has the support provided through [Fund Manager] been to your business in terms of providing advice in the following areas...

	critical	**significant**	**limited**	**no support**
Product or service development				
Marketing and advertising				
Shaping its strategic direction				
Supply and distribution channels				
Future sources of funding				
Overseas expansion				
Shaping organisational design and governance				
Other (please specify and rate the support provided)				

Question 11: Have there been key areas where [Fund Manager] could have provided greater support? (Please describe below)

Question 12: If there has been particular advice or information from [Fund Manager] that has helped develop your business, what was it?

Question 13: Will you need to raise additional capital in the next two years?

No (go to question 15)
Yes
If yes, from what source do you expect to raise the capital and how confident are you in the availability of this funding?

Question 14: If you answered yes to question 13, approximately how much capital will you look to raise in the next two years and what will be the primary purpose of this funding?

Question 15: In what year and through which method (e.g., trade sale or IPO) do you expect to realise value from your company?

Question 16: If you wish, please provide any further comments on NZVIF Ltd's involvement in the VC market.

Question 17: We would appreciate an opportunity to discuss some of the topics covered in this survey further with a small number of the survey participants. If you are willing to assist us please leave your contact details below.	
Name	
Contact number	
preferred time and date	

12.1.4 Interview questions

The following are the questions covered in the interviews with managers of venture capital firms and industry stakeholders (NZVIF Ltd and their Board excepted). Questions varied according to who was interviewed.

A. The Venture Capital Market

Venture capital firm

1. How long have you been active in the New Zealand venture capital/financial market and what venture capital funds have you been involved with?

2. In terms of percentage of total assets under your management, how important are the funds which include contributions from the VIF to your total venture capital activity? How has this changed over time?

3. We are interested in the roles that venture capital firms play and the value they provide to portfolio companies. Through your fund which includes contributions from the VIF what support have you provided for your portfolio companies in terms of advice in the following areas:
   a. product or service development
   b. marketing and advertising
   c. shaping their strategic direction
   d. supply and distribution channels
   e. future sources of funding
   f. overseas expansion
   g. shaping organisational design and governance
   How long, on average, do you spend with each portfolio company?

Venture capital industry

4. In terms of the New Zealand venture capital industry, what have been the key developments since your involvement in the market?

5. Has the development of New Zealand's venture capital market accelerated since the involvement of the government via the VIF? How? (E.g. has it become easier to get people with the requisite skills and experience?)

6. Do you think that New Zealand's venture capital market would be self-sustaining without the VIF?

7. In terms of both your VIF and other (if applicable) funds are you able to raise funding from large New Zealand institutional investors? What about large offshore investors? Why, why not?

The VIF

8. The goals and operating principles of the VIF have been established over time. Under the programme mandate NZVIF Ltd are now able to invest into venture capital funds at various stages of investment on pre-determined investment ratios, alongside private investors. These stages of investment and investment ratios are:
   1:1 basis for seed and start ups;
   1:2 basis for early expansion;
   1:4 basis for expansion; and
   1:5 basis for late expansion
   In your view are these stages of investment and investment ratios the right ones?

9. The VIF was set up with the proviso that co-investors may buy out the NZVIF Ltd's investment at any stage up to the mid-point in the life of a fund (i.e. within five years). Why hasn't this happened?

Deal flow

10. Taking in turn deals from CRIs, Universities and those arising elsewhere, in your experience:
    a. How many prospective investment deals do you view, what is the quality and take up of these, and how many do you expect to ultimately exit?
    b. What is the average size of individual investments and is the size of such investments increasing or decreasing over time?
    c. How do these deals get to you? Have you noticed any changes over time in this regard?

11. Of the firms you invested in:
    a. Were there issues around investment readiness or commercial understanding of these firms prior to your investment?
    b. What about challenges that you have faced since you have invested in these firms?

B. NZVIF Ltd

12. In your experience is the due diligence or selection process before you were appointed a participating Fund in the VIF sufficiently rigorous, transparent and fair?

13. What about NZVIF Ltd's negotiation process over investment terms and governance?

14. Are you satisfied with NZVIF Ltd's level of monitoring of your activities?

15. Have you had differences of views with NZVIF Ltd over operational issues?

16. Do you use NZVIF Ltd's investor documentation?

C. Future

17. What are the challenges for New Zealand's venture capital industry in the future?

18. How could the government enhance their involvement in the venture capital market via:
    a. The VIF (including both the equity investment fund and market development initiatives).
    b. Other?

19. How do you expect your business to develop?

20. How many of the companies in your VIF related fund will move forward successfully?

21. What is the expected rate of return on your VIF on a cash in/cash out basis over a ten year period? What about the expected rates of return of other funds under your management?

12.2 Investment stages

The following definitions for the VIF were agreed by the Cabinet Business Committee (refer CBC Min (06) 18/13).

Investment stage	Description
Seed	Investment will enable development, testing and preparation of a product or service to the point where it is feasible to start business operations.
Start-up	Investment will enable actual business operations to get underway. This includes further development of the company's product(s) and initial production and marketing.
Early expansion	Investment provides capital to initiate or expand commercial production and marketing but the investee company is typically or likely to become cashflow negative.
Expansion	Investment is provided for the growth and expansion of a company which may or may not break even or trade profitably. Capital may be used to finance increased production capacity, market or product development or provide additional working capital.
Late expansion	Investment is provided for financing the expansion of a company that is producing, distributing and increasing its sales volume and to help a company achieve critical mass to position it for an initial public offering.