

NZVIF Briefing for Incoming Minister

October 2014



Contents

EXECUTIVE SUMMARY	2
BACKGROUND	5
CURRENT STATE OF NEW ZEALAND VC AND ANGEL MARKET	7
VC Market.....	8
Angel Market.....	9
STRATEGIC ISSUES.....	10
Funding.....	10
Funding of Future Investment Commitments	11
Market Development - Attracting New Sources of Private Capital	13
NZVIF SINCE ESTABLISHMENT	15
Seed Co-investment Fund	15
Venture Capital Fund of Funds	20

Executive Summary

Building a vibrant early stage Venture Capital (VC) and Angel investment ecosystem is not an insignificant goal, and one that many countries have tried and failed to achieve. There are exceptions however, including countries like Israel, Finland, Singapore, where Government support has been instrumental in catalyzing the creation of such an ecosystem. New Zealand has also made great strides over the last 12 years, and there is now a small but growing cadre of experienced VC fund managers and Angel investors operating in the early stage end of the market.

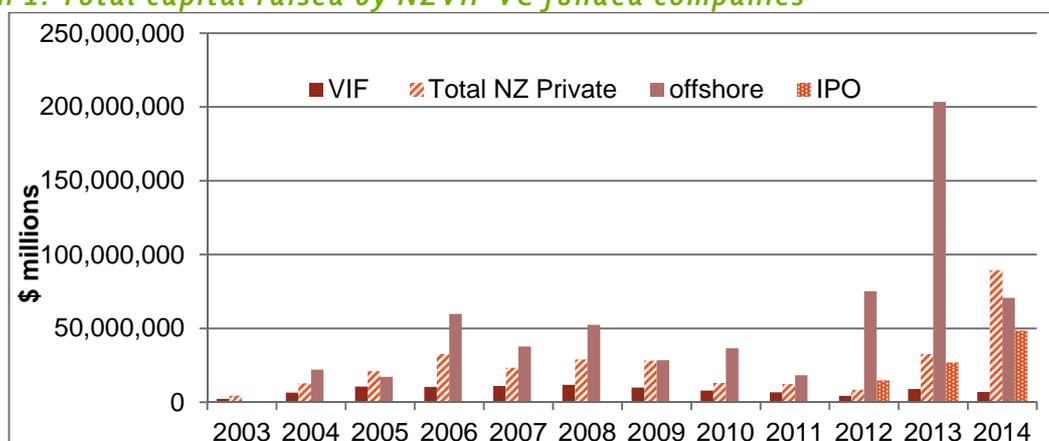
New Zealand Venture Investment Fund's (NZVIF) impact in leveraging private capital is largely demonstrated as investments come to fruition and through the follow-on capital that has been raised for NZVIF backed companies. NZVIF's impact in a broader economic development context is demonstrated through the early stage investment infrastructure that has been put in place over the last 12 years, as well as the capability that is being built within the VC funds and Angel networks.

Since 2002, NZVIF has partnered with 10 VC funds and 15 angel investor groups. Through these partnerships NZVIF has invested into 173 companies.

For every dollar invested by NZVIF, there must be at least 1:1 matching investment from private investors, although the public/private sector investment leverage for both programmes runs significantly above that. NZVIF's investment support alongside the private sector is particularly important in enabling companies to build operations to the point where they can attract significant additional capital, often from offshore, for growth. The capital provided by NZVIF and private investors is often the first truly third party capital provided on commercial terms. This capital enables the company to bring additional expertise on board, start building its commercial operations and enter international markets.

To date a total of \$1.132 billion has been raised for NZVIF VC funded companies. The composition of capital raised is summarized in Graph 1 below.

Graph 1: Total capital raised by NZVIF VC funded companies



In addition, a total of \$170 million has been raised for 113 Angel funded companies. \$30m of this has come directly from the Seed Co-investment Fund (SCIF), with the remainder coming from SCIF Angel investor partners and other private sector investors. As at 30 June 2014, private sector is matching SCIF investment across the SCIF portfolio at a ratio of greater than 4:1.

As a result there is a strong and growing pool of New Zealand technology companies that have received VC or Angel backing, and have gone on to achieve significant growth and international success. Most notably, Orion Healthcare, Xero, Orthopaedic Synergies, SLI Systems, Wherescape, Open Cloud, Waikato Milking Systems, ikeGPS, AuthorIt, K9 Natural and Mesynthes. Recent successful exits include HaloIPT, Zephyr and GreenButton. NZVIF has five companies that have achieved an IPO. Several other companies, as outlined in later sections of this report are also making good headway, but are at a much earlier stage of growth.

In addition professional investor capability is building across both VC Funds and Angel investor groups, and New Zealand has built a reputation as a vibrant pocket of early stage technology investment opportunities.

NZVIF holds what is likely to be the largest portfolio of equity holdings in early stage technology companies in New Zealand, with 113 direct equity investments through SCIF and 66 held through our VC Fund investments. The SCIF portfolio is still very young, with an average age of investments of three years.

There is significant upside potential; both in a market development sense, and in the future returns of the VC and SCIF portfolios, depending on how these portfolios are managed going forward. Extracting the greatest value from these portfolios, and ensuring that the professional investor capability and structures that have been developed over the past 12 years can continue to deliver a positive result for New Zealand, will be sensitive to decisions made about NZVIF's operations and future direction.

The Board is of the view that there is still a significant role for NZVIF to play in the early stage investment ecosystem in New Zealand. There is a strategic issue as to where the company should be focussing its efforts going forward with respect to delivering on the shareholders intent. This relates to the level of emphasis on both the VIF and SCIF programs going forward.

A discussion with shareholding Ministers with regard to creating an investment entity that can continue to engage with and support early stage investment opportunities, with minimal ongoing support from Government, to the point where government can have confidence to withdraw from providing this support is required.

Achieving this will require shareholder support for minor modifications to the VC Fund design, in relation to the application of the buy-out option as previously indicated. This would enable the VC Fund to become self funding. The VC Fund future investment commitments and expected cash-flows are set out in detail in the Strategic Issues section of this report.

With regard to SCIF there is currently sufficient funding for new and follow-on investment with our existing SCIF partners through to 2016. The Board's view is that it would be preferable for funding (either capital or access to an underwrite) to be available through to 2018, when it is anticipated that there will be sufficient returns flowing back from investments to fund future investments. At that stage more options would become available to shareholders with respect to optimising returns from the SCIF portfolio.

NZVIF continues to build investment partnerships in Taiwan and this is expected to be a good source of future investment capital for high growth New Zealand companies wanting to build a presence in the Asian market. One new fund has been established under these arrangements and it is anticipated another 1-2 funds being established over the next 2-3 years. Over the coming months NZVIF will be seeking shareholder support to explore a similar partnership opportunity in the China market.

NZVIF is currently looking at how it can facilitate new sources of both institutional and wealthy individual investment into high growth companies. In this regard NZVIF is undertaking work on two specific opportunities:

1. Identification of potential opportunities to leverage SCIF's portfolio and pipeline, to attract wider sources of investment capital. This could, for example, be through the establishment of an equity crowdfunding style online platform that operates alongside SCIF's existing Angel partnerships, providing investment access to a range of investors. Another option is to leverage the existing SCIF portfolio to develop a readymade portfolio investment product that could be marketed to sophisticated investors. This option could free up SCIF capital for reinvestment, consistent with the self-funding objective.
2. Developing an investment product targeted at institutional investors, including KiwiSaver funds, to provide them a portfolio of pre-qualified co-investment opportunities, is also being assessed.

In the interim, until decisions are made about the future shape of NZVIF, an increase in operating funding is being sought for the 2015-2016 and 2016-2017 years.

This report provides an update on NZVIF's two investment programmes – the Venture Capital Fund of Funds (VC Fund or VIF) and SCIF including expected future investment activity and returns, an overview of the current state of the New Zealand VC and Angel investor markets, and the strategic opportunities for NZVIF.

Background

NZVIF manages funds which provide start-up investment to young technology companies. It was established in 2002 as a government-owned company responsible for accelerating the development of New Zealand's VC and Angel investment market. At that time it was recognized that in order to support New Zealand's emerging technology sector, there needed to be a much greater level of private investment to assist high growth potential companies in the early stages of growth. The lack of private sector VC and investment capability to help build these companies was identified as a significant market failure. Furthermore, building the early stage investment pipeline was identified as a critical piece in building New Zealand capital markets, through all investment stages.

In this respect New Zealand followed the lead of a number of similar small countries that recognized the importance of internationally focused high growth companies, in building a more productive and resilient economy.

The Capital Markets Development Taskforce report of 2009 "Capital Markets Matter" reiterated the role of NZVIF in catalyzing private investment, following on from the commercialization activities of Crown funded Research Institutes. The taskforce recommended continued support of private sector led Angel and VC investment, to build the early stage pipeline.

It has always been recognized that it was likely to take 20-25 years to achieve sufficient scale and sustainability, enabling the Government to step back from day to day involvement. The impact of Global Financial Crisis (GFC), particularly on the VC industry, has been to push this horizon closer to 25 years.

NZVIF is now at a stage of development where it has achieved a number of the goals that it was established for. It has also reached the point where there is minimal reliance on new capital support from Government. For the VC programme specifically, no new capital is being sought. Based on current investment activity, and investment return projections, SCIF has visibility on sufficient capital to continue investing for the next two years. For the SCIF programme, it is anticipated that it will take another 4-5 years before it can become self-sustaining, based on investment returns. For this reason, and in order to maintain the current level of investment activity and market development momentum, a further capital injection (or capacity to access underwrite) is required.

SCIF co-invests with Angel investors at the very earliest stages of their investment, when it is most needed and valuable to them. Thereafter the private sector invests (both money and time) at increasingly greater levels, into those companies that show the strongest commercial and investment progress and potential. SCIF continues to hold a direct equity stake in those successful companies and will share in any future investment returns from those but continues to mainly concentrate its financial and market development resources into the seed stock of up and coming New Zealand companies.

Through SCIF an average of one new investment is made every week. The SCIF portfolio is still very young - the average age of our SCIF investments is three years. For this reason it is anticipated that it will take another 3-4 years for the SCIF portfolio to achieve fruition, such that returns from investments are sufficient to cover future investments.

NZVIF's VC Funds focus on investing in companies that are, typically, beyond Angel investing and seeking more substantial capital support for early expansion and growth into offshore markets. NZVIF's role in these VC Funds is both as a cornerstone investor, catalyzing private investor support and in the ongoing governance of these Funds.

NZVIF tracks the progress of all its investment partnerships and reports annually on overall investment progress and performance. A summary of investment performance to date is included in subsequent sections of this report. Many of the companies that NZVIF has invested, especially through the Seed Co-investment Fund, are still very young¹, so it is too early to predict with confidence their future commercial progress and ultimate investment return success. Nevertheless there have already been some early successes.

Central to NZVIF's investment approach is the formation of public-private investment partnerships that support the building of private sector capability. NZVIF only invests alongside private sector fund managers and Angel investors that are able to attract significant private capital for investment. NZVIF's due diligence and selection criteria for the partnerships that it has entered have had a catalytic effect in attracting private capital. For every dollar that NZVIF has invested into companies through these investment partnerships the leverage effect is significant. While the initial investment is likely to be on a 1:1 or 1:2 of NZVIF to private capital ratio, as noted in section 1 of this report the trend is for the more successful companies to attract much greater levels of private capital as they grow and so for the private sector leverage of NZVIF investment to far exceed this over time.

Policy and performance reviews of both SCIF and the VC Fund have been undertaken over recent times (Woodward Partners review of SCIF and VIF, 2014, MBIE SCIF Review 2012, previous reviews of VIF in 2010).

¹Average age of SCIF portfolio is three years since first investment.

Current State of New Zealand VC and Angel Market

Significant progress has been made in building VC and Angel market infrastructure and capability over the past twelve years, with many companies that received either investor backing achieving commercial success. And the pipeline of future successful portfolio companies and new VC and Angel investment opportunities continues to be strong.

As expected however, there have been many failures too and a high failure rate will continue to be part and parcel of investment into early-stage technology companies. In VC and Angel investing it is anticipated that at least 50% of companies will not return investors capital, 30% will return capital and possibly more. It is anticipated that 10-20% of companies will generate most of the returns.

Getting the right industry infrastructure in place is necessary to build a vibrant market, but it is the building of professional investor capability that takes time. For entrepreneurs, achieving success once is sufficient to establish credibility. For investors success has to be demonstrated many times over and through successive investment cycles. NZVIF's role, alongside the industry, has focused on building a core of private (VC and Angel) investor capability.

Table 1: VC and Angel market development

	VC	Angel
Stage 1 <i>Develop industry infrastructure</i>	Achieved	Achieved
Stage 2 <i>New VC managers and angel networks establishing themselves in the market</i>	Partially achieved, a number of existing and prospective VC managers exited the market during GFC.	Partially Achieved. 12+ active Angel networks/funds operating. Some Angel networks and funds have ceased or significantly reduced their investment activities though.
Stage 3 <i>Building investment track record</i>	2-3 VC fund managers who have been successful in raising a second fund, based on investment performance	Just starting to happen, SCIF portfolio average investment is 3 years
Stage 4 <i>Achieve scale and capability</i>	Still rebuilding post GFC. VC market is small c.f. with OECD comparators. Institutional investor engagement very low.	Investment activity healthy, core of active Angels still quite small and financial sustainability remains as issue for most.

VC Market

Worldwide, VC investment suffered a major setback during the GFC and many funds established pre-GFC have not performed well. New Zealand experienced a similar situation.

Although the New Zealand VC market has recovered well post GFC, there is still some way to go to achieve both the scale and capability needed for the VC market to do the job it is supposed to. A key challenge for fast growing exporting companies is raising “Series A” finance (\$2-\$10 million) to fund their initial forays into offshore markets. Being well capitalised at this stage of development is critical as it allows the company to compete effectively in global markets, in particular when recruiting in-market sales and marketing talent.

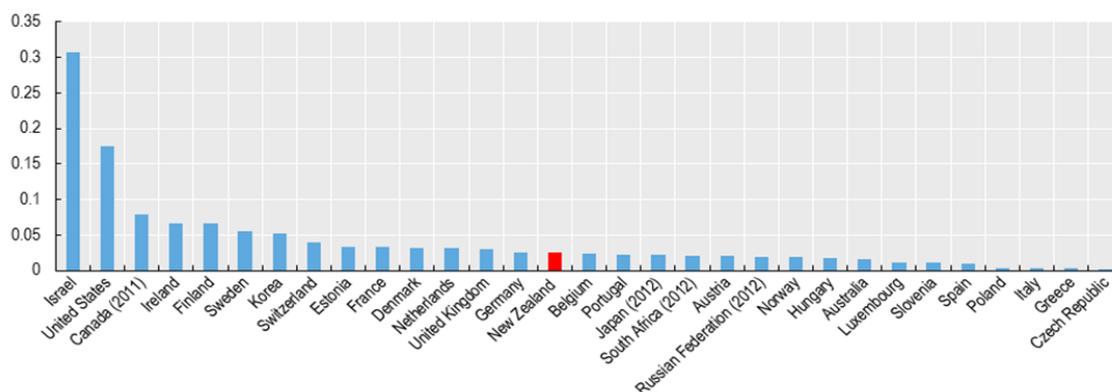
There are currently three active New Zealand VC Fund managers Movac, Pioneer and GRC SinoGreen, with the capacity to invest in the range of \$5-\$15 million into companies that aspire to significant growth. The recent flurry of interest in listing technology companies on the NZX has filled the gap to some extent. While this is positive development, a listing is not always the best option for New Zealand technology companies, especially if their technology and market opportunity is unproven. The ability to raise significant amounts of venture and growth capital from VCs will continue to be an important route that needs to be available for many New Zealand companies. As it stands, most New Zealand companies that have ambitions for global growth will need to look offshore (either initially or eventually) to fund that growth.

The connection between having a strong and well supported technology sector, and a vibrant local VC and Angel investor community is well understood worldwide, with many countries attempting to create the right environment to support high growth start-ups. Israel and the US sit at the top of the OECD scale for VC investment as a % of GDP. Prior to GFC New Zealand was close to being in the top quartile of OECD countries for VC investment, alongside Finland, Sweden, Switzerland and Denmark. In recent years New Zealand has gone backwards both in actual investment and also in OECD rankings. New Zealand VC investment currently sits at 0.025% of GDP.

While the increased interest from investors to support technology company listings on the NXT and NZX is positive, these are not substitutes for the role of Angel and VC investors in assisting early stage and growth companies.

Graph 2: OECD comparators - equity investment²

VC investments as a % of GDP 2013



²OECD Entrepreneurship at a Glance Report 2014.

Angel Market

The New Zealand Angel market is performing strongly with \$53 million invested during 2013 (up from \$21 million in 2006). The majority of that capital (>60%) is invested through SCIF partnerships, with SCIF investment contributing 5–10% of the annual total. While investment levels are healthy, it is still early days in respect of knowing the timing and quantum of Angel investment returns.

The biggest challenge for the New Zealand VC and Angel market continues to be the availability of capital and capability for companies going from start-up through to global growth.

Since 2006 NZVIF has been collecting detailed data on the New Zealand Angel investment market. This data is published bi-annually in the “Start-Up: Young Company Finance Report” (YCF) and primarily reports on the “formal” part of New Zealand’s Angel investment market. That is, groups of individuals operating as part of an Angel network (such as AngelHQ in Wellington) or groups of individuals operating a specialist Angel investment fund (such as Sparkbox Ventures in Auckland). In both cases these groups publically promote themselves as active Angel investors and actively syndicate investments amongst themselves. This differs from “informal” Angel investors, typically individuals or small group of individuals, who invest in start-ups on a very private basis and so are generally not visible to or known by the public.

Table 2: Angel capital invested – full year

Year	Amount invested	Number of deals
2006	\$21,366,964	30
2007	\$29,518,403	55
2008	\$32,569,403	41
2009	\$43,238,580	75
2010	\$53,109,861	112
2011	\$34,798,049	103
2012	\$29,896,789	102
2013	\$53,230,971	116
Total	\$297,728,965	634

Strategic Issues

Funding

It is the view of the Board that over the next two years NZVIF needs to put in place a set of arrangements that will enable the business to be self-funding. Achievement of this would provide shareholders with more options should it decide to withdraw ongoing funding. It would also mean NZVIF could continue to play a critical role in developing the early stage investment ecosystem without relying on the Crown for ongoing funding.

Self-funding would mean that beyond the existing commitments of the shareholder, no new capital would be required. Furthermore, returns from existing investments would be sufficient to maintain a steady momentum of new investments and commitments going forward. The expectation is that once the portfolio of investments is mature, a positive return can be delivered.

The VC Fund is already at the stage where this is achievable. The key impediment to achieving ongoing investment sustainability for the VC Fund is the buy-out option, which puts a limit on NZVIF's ability to share in the investment return upside. By definition if the NZVIF return is capped on the best performing funds but is fully exposed to moderate or underperforming funds, then its capital base will erode over time. The NZVIF Board is seeking shareholder support for either removal of the buy-out option, or a modification which limits its availability to first-time onshore VC fund managers operating at the very early end of the market.

The SCIF portfolio is 4-5 years away from being self-funding based on current forecasts, but this could change if positive returns are delivered in a shorter timeframe. For this reason NZVIF has previously sought additional capital support for SCIF, to enable the current level of investment momentum to continue, until there is a sufficient flow of investment returns. This capital could be in the form of an under write, similar to the VC programme.

Reliance on operational support from government shareholders could also diminish over time, provided that NZVIF has the flexibility to take on additional revenue generating investment mandates. NZVIF is well placed to look at developing new investment products that would attract greater levels of private capital to invest into New Zealand technology investments.

Funding of Future Investment Commitments

Table 3 sets out NZVIF's current capital position.

Table 3: NZVIF capital position as at 30 June 2014

	SCIF	VIF
Crown investment capital	\$40m	\$160m
Crown underwrite*		\$100m
Capital invested by NZVIF	\$30m	\$120m
Capital returned to NZVIF	\$4m	\$25m
NZVIF net investment	\$26m	\$95m
Capital available to NZVIF for investment**	\$14m	\$65m
Planned investments***	\$12m (2 year horizon)	\$25m (2 year horizon)
Capital remaining for future investments	\$2m	\$40m

* Enables future commitments to be made

** Excludes VC underwrite

*** Related to existing SCIF allocations and VIF contractual commitments, 2 year forecast.

Annex I provides details of the current drawdown forecast for the VC Fund, which highlights the investment sustainability timeframe, based on current commitments and forecast investment performance.

The VC Fund forecasts indicate that provided NZVIF is able to call up to the full \$160m capital commitment, and cash returns can continue to be available for reinvestment, no new capital commitment is required from the Crown. However to achieve this result will require discretion in how the buy-out option is applied.

Assuming aggregate commitments of \$260 million, NZVIF anticipates that it will be fully committed by 2018 with the last investment by a VC Fund expected to occur in 2024. The final cash flows returned to NZVIF from these investments are expected to occur around 2030.

VC Underwrite

While NZVIF does not anticipate calling on the VC underwrite facility, it remains a useful mechanism to enable NZVIF to enter into future commitments, as set out below.

Table 4: NZVIF VC Fund commitments

	VIF
Total avail. For commitment	\$260m
Capital committed	\$181m
Balance avail. for commitment	\$79m
Expected new commitments (4 year horizon)	\$70m

Table 5: NZVIF new VC Fund pipeline

Name	Indicative VIF Capital Commitment (\$m)	Launch Date	Current Status
New VC Fund	20	2015-16	Initial discussions
New NDF Co-Fund prospect	25	2016-17	Initial proposal received
New NDF Co-Fund prospect	25	2017-18	Initial proposal received
TOTAL	70		

In addition to these prospective funds in the pipeline, NZVIF is of the view that it would be beneficial to have another New Zealand domiciled VC Fund, providing ‘Series A’ funding to high growth companies (i.e. start-up/early expansion stage of the market).

SCIF Underwrite

As noted above, SCIF is able to fund its current partnership commitments for just over two years, at which point the \$40m of capital will be fully utilized. To the extent that cash is returned in the meantime, this timeframe will be extended. However, to maintain the current level of Angel investment momentum, until SCIF is able to be self-sustaining through reinvestment, provision of a further injection of capital would be desirable. An alternative would be to put in place an underwrite similar to that employed in the VC Fund.

Market Development - Attracting New Sources of Private Capital

A key objective for NZVIF is to attract sufficient private capital into VC funds and Angel investing so that over time government is able to extract itself from continued funding and potentially realise its shareholding. As investment performance improves and investors get more comfortable with how VC investing works, it is becoming easier to attract capital, especially in the current economic climate. But the scale of VC investing in New Zealand is still very small, and around 60% of the capital raised for high growth New Zealand companies comes from offshore investors. Significantly, institutional investor support for high growth companies is well below international benchmarks.

Institutional investor product

NZVIF holds the largest equity portfolio of early stage, high growth New Zealand companies, even after accounting for exits and write-offs. At the same time there is currently no investment product in the New Zealand market that offers institutional investors a diversified portfolio of selected high growth companies. Furthermore NZVIF's market knowledge, investment infrastructure, and portfolio management capability means that it is well placed to develop new investment products tailored to meet institutional investor requirements. Over the coming months NZVIF will undertake exploratory market research to determine whether there is market appetite for a tailored investment product.

Equity crowdfunding platform alongside Angel investors

NZVIF is also assessing whether it is feasible to create an online, equity crowdfunding style portal, to attract new sources of capital alongside existing Angel investors. It is intended that this would be undertaken in conjunction with existing Angel investment partners rather than as a standalone fund. This will enable a wider range of Angel investors to come alongside the existing Angel groups.

International Investment Partnerships

Due to the size of the New Zealand domestic market, and the type of companies that VC and Angel investors invest in, the attraction of offshore capital is an essential component for growth. Without exception, companies that are seeking to scale internationally will need to attract capital beyond the capacity of New Zealand's capital market. To date the majority of capital raised by NZVIF VC funded companies has been sourced offshore.

NZVIF has previously invested in a number of VC Funds with international investment partners and other linkages (TMT Ventures with Advent, Valar Ventures, Treasury iGlobe with Singapore TIF).

In 2011 Cabinet approved a USD \$160m co-investment partnership between NZVIF and the Taiwanese National Development Fund (NDF). The GRC SinoGreen Fund was established under these Co-Fund

arrangements. It is anticipated that another 2-3 funds could be established under the Co-Fund arrangements over the next three years.

Identifying and partnering with offshore investors and VC fund managers willing to collaborate with local VCs continues to be a necessity to attract sufficient scale of capital and capability.

NZVIF is currently investigating interest from a Shanghai based VC fund manager with strong New Zealand linkages, to establish a new VC fund in a 50/50 investment partnership. It is early days but this could be a strong opportunity to attract both capital and expertise to assist New Zealand technology companies both in capital raising and market entry into China. Shareholding Ministers' approval would be required in order to proceed in establishing this investment partnership.

NZVIF Since Establishment

Annex 3 provides a summary of the VC and SCIF investment parameters.

Seed Co-investment Fund

Since 2007 SCIF has entered into 15 new Angel investment partnerships and made equity investments into 113 companies. During the same period the formal Angel investment sector has grown steadily, with 15 known Angel investment networks and funds investing an average of \$42 million a year over the last five years.

Table 6: Seed Co-investment Fund investment activity (as at 30 June 2014)

Number of Angel Partnerships entered into	15
Number of active Angel Partnerships (invested in past year)	12
SCIF Investment in Companies	\$29.7m
Total Amount Invested (SCIF + private)	\$61.5m
Number of Companies Funded	113
Average SCIF Investment per Company	\$262k

Investment Performance

For the year ended 30 June 2014 SCIF's combined portfolio value (i.e. holding value plus capital returned to date) exceeds the amount invested by the fund for the first time. This is against the backdrop of a very conservative approach to the annual valuation of the SCIF portfolio. For instance, as at 30 June 2014 28 of the 113 companies in the portfolio had their holding values written down to zero. Of those only 14 companies have formally been liquidated or entirely ceased to operate. The other 14 companies are still trading or materially operating in some way. SCIF's approach is to write the holding value down to zero based on a prudent assessment of the challenges and issues that these companies currently face.

SCIF investment modelling shows that the return on government investment of \$40m will be in the range .80x–1.5x capital by 2026. These values are very conservative, reflecting the markedly higher risk profile of pre-seed and seed stage investments. They are also highly sensitive to one-off “outlier” returns (such as those generated by Xero currently in the NZVIF VC portfolio). This modelling is based on a combination of our experiences of the Angel investing (including knowledge of the current SCIF portfolio of companies) and on Angel investment portfolio theory.

Angel investment of the type done by SCIF and its partners (i.e. providing the earliest rounds of pre-seed and seed stage equity to start-up companies) is not an internationally recognised investment class or product in its own right. Furthermore internationally, Angel investors are hugely diverse in their investment approach and preferences, and intrinsically very private. For this reason it is difficult to find relevant international comparators against which the SCIF portfolio can be benchmarked.

In this regard the NZVIF data set is somewhat unique in terms of the collection and analysis of Angel investment fund data.

Angel investing studies by Robert Wiltbank³ in the US have shown that in any one investment, an Angel investor is more likely than not to lose their money, i.e. to earn less than a 1X return. However, once investors had a portfolio of at least six investments, their median return exceeded 1X. Monte Carlo model simulation has been undertaken with this data as well, finding that making near 50 investments approximates the overall return at the 95th percentile. In addition, Wiltbank's studies have demonstrated that cash returns in an Angel investment portfolio are highly concentrated in winners; 90 percent of all the cash returns are produced by 10 percent of the exits.

In this context SCIF is well positioned - it is now the largest and most diversified Angel investor in New Zealand investing actively across multiple sectors, partners, regions and years (vintages). This portfolio diversification significantly increases the probability of SCIF generating positive investment returns over time. It is also likely that the maxim that 90% of returns will be produced by 10% of exits will hold true for the SCIF portfolio over time.

Table 7: SCIF portfolio performance as at 30 June 2014

	SCIF
Total no. of investments	113
Amount invested	\$29.7m
Holding value of investments in portfolio companies	\$26.1m
Cash held	\$4.1m
Total portfolio value (holding value plus capital returned)	\$30.2m
Investment multiple	1.01
Portfolio IRR since inception	0.43%
Median age of investment	36 months
No. of exits	4 (3.5% of portfolio)
Amount received from exits	\$4.1m (13.5% of invested capital)
No. of write-offs	28 (24.8% of portfolio)

³Reference the study.

Portfolio Highlights

Reflecting the unpredictable nature of Angel investment returns, and very positively, SCIF has already had two significant exits from its portfolio: Halo IPT and GreenButton. In both cases SCIF received a significant multiple on its investment.

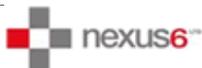
HaloIPT was a University of Auckland spin-off company established to commercialise world-leading wireless electricity transmission technology. SCIF co-invested alongside the trans-Tasman Commercialisation Fund. HaloIPT needed an international partner to succeed with its unique technology. Within 18 months, it was purchased by a large US company, Qualcomm. NZVIF and TTCF provided the capital to take it to the market before Qualcomm came on board.

NZVIF first became involved with GreenButton in February 2010 when the fund invested alongside a number of Angel investors. SCIF's early 1:1 investment support resulted in GreenButton being able to raise sufficient capital to bring in key leadership (particularly the chief technology officer) and to engage with those US partners who have been fundamental to its ongoing success. SCIF provided continued investment support, both to maintain its pro-rata investment position and to encourage new investors to the table.

In addition to these, SCIF has exited (in both cases receiving at least all of its invested money back) Inro Technologies (Integrated robotic forklifts) and Somnaceutics (Nutraceutical products and ingredients).

In total, \$4.1m of investment returns been received by SCIF to date.

Other current portfolio companies that we believe have very positive investment outlooks include:

	<p>Nexus6 has developed a range of smart inhalers to administer medicines. Its technology includes the ability to digitally monitor the inhaler's use. <i>Founded: 2001, Founder: Garth Sutherland, Lead and key investors: ICE Angels</i></p>
	<p>Mesynthes produces tissue sheets for wound care and surgery. It has gained US Food and Drug Administration clearance for its product's commercial launch into the lucrative US health market. <i>Founded: 2007, Founder: Brian Ward, Lead and key investors: Sparkbox</i></p>
	<p>Booktrack's technology matches music to text for readers of e-books. Its products are being sold around the world. <i>Founded: 2010, Founder: Paul Cameron, Lead and key investors: Sparkbox, Peter Thiel</i></p>
	<p>D'Arcy Polychrome is an Auckland-based start-up which has developed technology to deliver pre-packed colour for the decorative paint market. It recently won the 2013 Startmeup HK Venture Programme, beating 384 entries from 39 countries. <i>Founded: 2011, Founder: Rachel Lacy, Lead and key investors: Pacific Channel</i></p>
	<p>TracPlus Global provides global tracking, sensor monitoring and data analysis services to companies in the energy, oil and gas and mining sectors, emergency service agencies, explorers and adventurers, and armed forces in over 30 countries. <i>Founded: 2008, Founder: Chris Hinch, Lead and key investors: Otago Angels</i></p>



Biomatter's 'Geneious' programme is one of the most frequently cited commercial software packages for DNA sequence-based research.

Founded: 2006, Founder: Alexei Drummond, Lead and key investors: ICE Angels



Rockit Apples has developed miniature apples through cross-breeding, packaged them in an innovative plastic tube, and markets them to export markets.

Founded: 2005, Founder: Geoff Allison, Lead and key investors: Enterprise Angels

Annex 3 lists all the companies SCIF has invested in to date.

Expected Future Performance

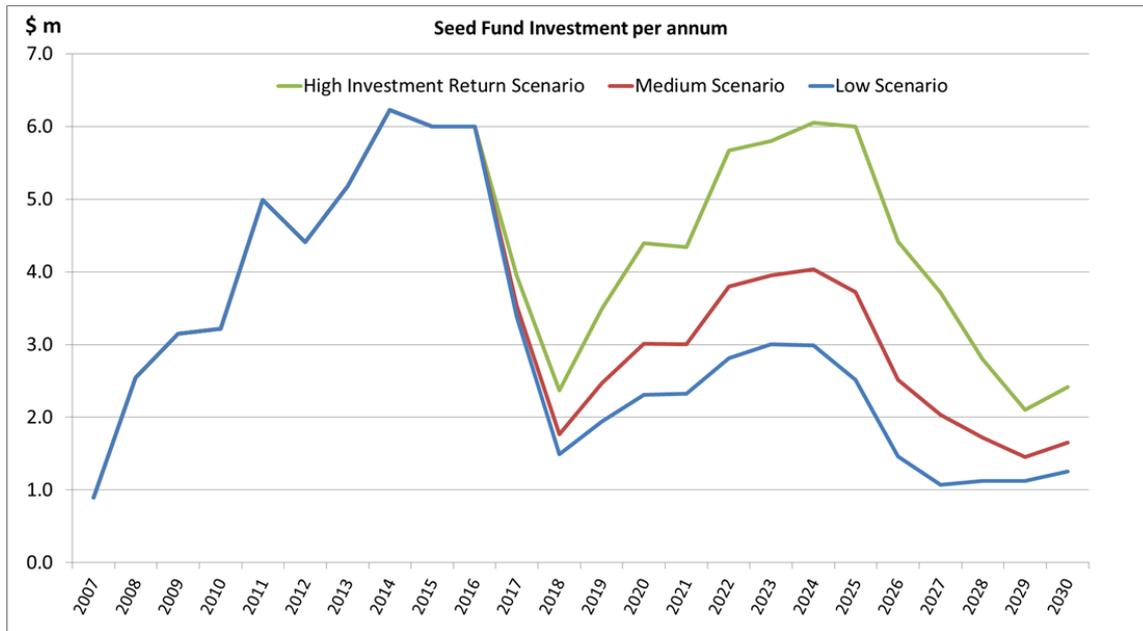
While SCIF was set up in 2006 and made its first co-investment in January 2007 the first few years of its operation were focused on establishing new co-investment partnerships, the majority of which were put in place between 2006 and 2010. As at June 2009 for instance there were only 25 companies in the portfolio. The bulk of the co-investment has been done over the last 4 years and, reflecting that, the median age of investment (i.e. the period from which SCIF made its first investment into a company) is still only 36 months. This means that in our modelling of expected future fund performance, significant flows of investment returns are not expected until 2019/2020 at which point the median age of investment will be approximately 6–7 years. This timeframe is to be expected, not least as the companies are really at the very earliest stages when SCIF first invests in them – generally pre-revenue/pre-commercialisation.

As currently modelled, and assuming no further material investment returns between now and then, SCIF has sufficient capital to invest at its current investment rate (c.\$6.0m per annum) until late 2016/early 2017. While we would hope to see further material investment returns over that period we do not currently have visibility on any known exits in our portfolio.

To the extent that cash is returned in the meantime, this timeframe will be extended. However there is already very limited capacity to enter into new SCIF investment partnerships that bring in new investors and additional private capital, so there is a risk that investment momentum within SCIF's partnership base, and therefore in the wider New Zealand formal Angel market, will be lost over the next two years as a result. In addition, our current modelling shows that beyond 2016-2017 the rate of investment by SCIF will fall off dramatically. Based on this, our view is that for the SCIF programme to maintain its current investment and market development momentum with confidence, a further capital injection (or underwrite) is required by government.

The following graph shows our modelling of SCIF investment over the next 15 years based on currently available capital and our projections of future investment returns. The investment profile based on High, Medium and Low investment return scenarios are shown.

Graph 3: Seed Fund investment per annum



As the graph demonstrates there is a sharp drop off in investment when SCIF is expected to be fully invested in 2016, with a gradual increase again after 2018, once there are sufficient returns to enable steady reinvestment.

To put SCIF’s impact in the formal Angel market into perspective, the YCF data for the full 2013 calendar year showed that a total of \$53.2m was invested into Angel backed New Zealand companies. Formal Angel networks and funds accounted for \$42m of that amount. SCIF itself directly invested \$5.4m. Combined, SCIF and SCIF Angel investment partners represented over 60% of all measured formal Angel investment in the period. The majority of the remaining investment also came from just one other investor. This investment was made alongside SCIF and SCIF partners.

Venture Capital Fund of Funds

To date NZVIF has invested in 10 VC funds, the first five funds being established during the period 2002-2005. A further five funds have been established since 2007.

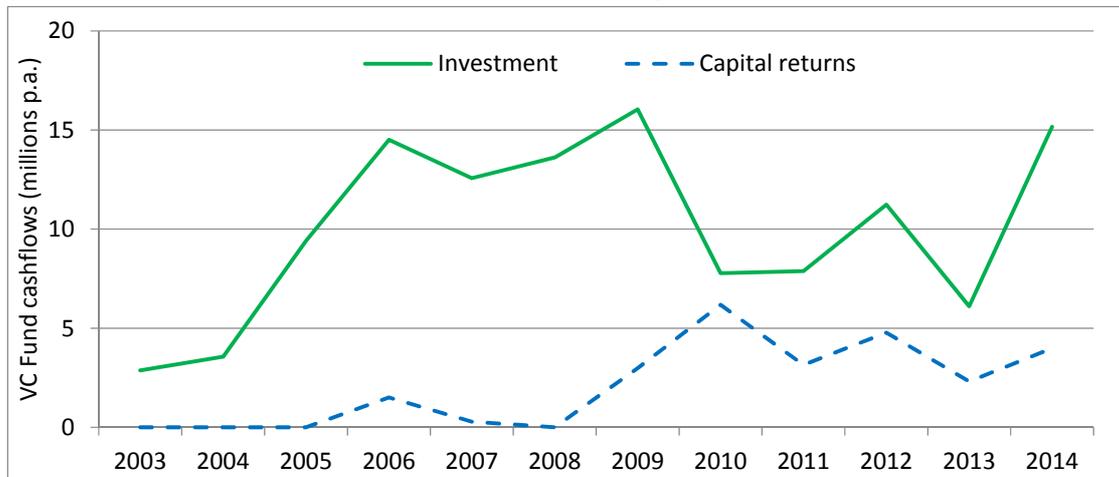
NZVIF's first four funds (No.8, TMT, Endeavour, Treasury iGlobe) have now expired and have exited most of their investments. Two funds (BioPacific Ventures, Pioneer II) are over halfway through the fund life, and starting to exit their investments. There are currently three active New Zealand VC funds – MOVAC, Pioneer II and most recently, GRC Sino Green Fund. Valar VC Fund is also present in New Zealand although unlikely to make new investments. NZVIF expects two to three new funds to come to market over the next 2-3 years based on market interest.

Table 8: VC Fund of Funds investment activity

Number of Venture Capital Funds backed by NZVIF	10
Average Fund Size	\$40m
Number of Active VC Funds (invested in past year)	4
NZVIF Investment in VC Funds	\$120m
Total Investment in VC Funds (NZVIF+private)	\$268m
Number of Companies Funded	66
Total Investment in Companies (NZVIF+private)	\$1.1bn
Average Investment per Company	\$3.9m

The establishment of three new funds between 2011 and 2013 has seen a strong level of investment activity in 2014, recovering to levels seen in the mid 2000's. NZVIF anticipates that this level of activity will remain strong over the next two to three years as these funds build their investment portfolios. Capital returns from the VC Fund have been steady, albeit not spectacular, although there are a number of companies that NZVIF expects to exit within the next 12–18 months.

Graph 4: Annual VIF VC Fund investment and capital returns



VC Fund Performance

The performance of the VC Fund investments has followed the expected “J-curve” profile for funds of this type (refer to Graph 5). Over the initial years of the VC Fund the value of NZVIF investment was lower than capital invested, due to the impact of management fees and VC fund managers culling underperforming investments. Since 2012 there has been a steady increase in the value of the underlying portfolio which has corresponded with strong revenue growth across the portfolio (20% p.a. over past three years) and increased levels of capital raising.

As at 30 June 2014, the return on the Crown’s investment in the VC Fund was 93 cents for every dollar invested. Of the 93 cents, 21 cents has been cash returned with the remaining unrealised portfolio amounting to 72 cents. It should be noted that 40% of the unrealised portfolio companies by value are either listed on a public exchange or have begun a formal listing process.

Table 9: VC Fund portfolio value as at 30 June 2014

Capital drawn from Crown for VC Fund	\$100m
Total VC Fund portfolio value ⁴	\$93.2m
NAV (net cash multiple)	0.93
Net IRR (p.a.)	-1.8%
Total invested into Funds	\$120m
Cash returned to NZVIF	\$25m
Number of portfolio companies	66
Number of exited (includes write offs)	23

⁴Includes \$7m cash held on NZVIF balance sheet from distributions.

Individual VC fund performance is measured by the amount of capital returned to investors relative to the amount of capital invested (cash on cash). As the ultimate performance of a VC fund is not known until the last investment is realised, the interim performance is measured by taking into account capital returned, along with the current holding value of the unrealised investments. The interim performance typically understates the expected final performance as unrealised investments are valued conservatively. Furthermore, as the investments are typically in privately held companies there are not readily available market prices to base value on.

NZVIF reports its performance based on the aggregated performance of the underlying VC funds. This performance is expressed as a value per dollar invested (NAV).

NZVIF has adjusted the value of its investments to account for the buyout option, reflecting the Crown position. Where a VC fund option to buy out NZVIF is “in the money”, the fund investment is valued at the option price. The impact of the buyout option is shown as a separate line in the following performance tables. The no buy out position reflects the private investor position in the same portfolio.

Table 10: VC Fund investment performance and J curve

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
VIF VC Fund (net) - buy-out adjustment (NZVIF)	-1.8%	0.93	0.21	0.72
VIF VC Fund (net) - no buy out adjustment (private investors)	5.6%	1.3	0.21	1.11

Graph 5: VC Fund performance

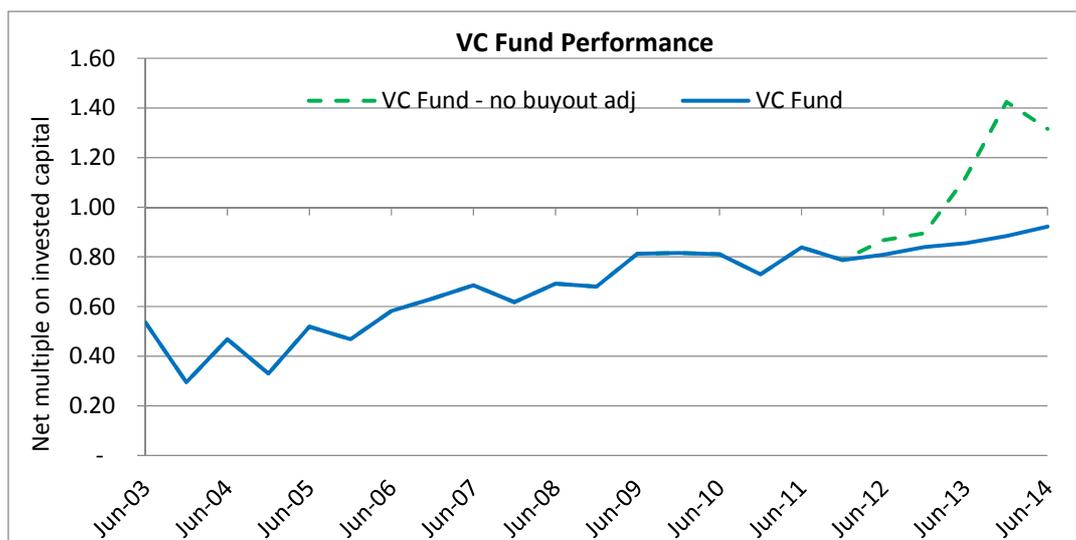


Table 11: VC Fund exit analysis

Capital invested into exited companies	\$29.7m
Cash returned to NZVIF	\$25.0m
Return on exited investments	0.85
Exits better than 1x	8
Exits between 0 -1x	7
Full write offs	8

Vintage Analysis and Impact of GFC

VC funds typically have a 10 year life, with the first years being the “build” or “active investment” phase and the second five years being the divestment/selling stage. To achieve a credible investment track record, VC fund managers need to demonstrate that they have been successful over 2-3 separate funds, spanning several years. This can take several years depending on market conditions.

By 2006 NZVIF’s first cohort of VC funds (established 2003–2005), were tracking as expected. While raising capital for tech start-ups was slow, and it was challenging to raise substantial follow-on capital, nevertheless there were a number of portfolio companies showing good growth. As the GFC took hold, not only did the interest in VC funds collapse, but also the opportunities for technology companies to raise follow-on capital, be acquired, or IPO, virtually disappeared. Many of the companies in NZVIF’s original VC funds were either sold at a loss or simply wound-up. A handful survived and some of them have achieved good returns for investors. Not surprisingly, the impact on those VC funds’ performance was disappointing. Of NZVIF’s first cohort of fund managers only one has gone on to raise a second fund.

The impact of the GFC on the performance can be seen in the VC Fund “J-curve” (Graph 5). Prior to 2009, the VC Fund performance is trending upwards, following the classic J-curve shape. From 2009-2011 during the height of the GFC this trends flattens and the portfolio value is stalled at around 80 cents in the dollar. Since 2012 the upward trend has resumed with the overall portfolio nearing parity.

In 2011-2012, post GFC, the VC market worldwide started to pick up and there was renewed interest in New Zealand, from private equity and technology investors looking for investment opportunities. As a result NZVIF VC investment has experienced a “restart”. Also for companies that had received investment from 2007 onwards, by 2012-2013 the exit/IPO market opened up again.

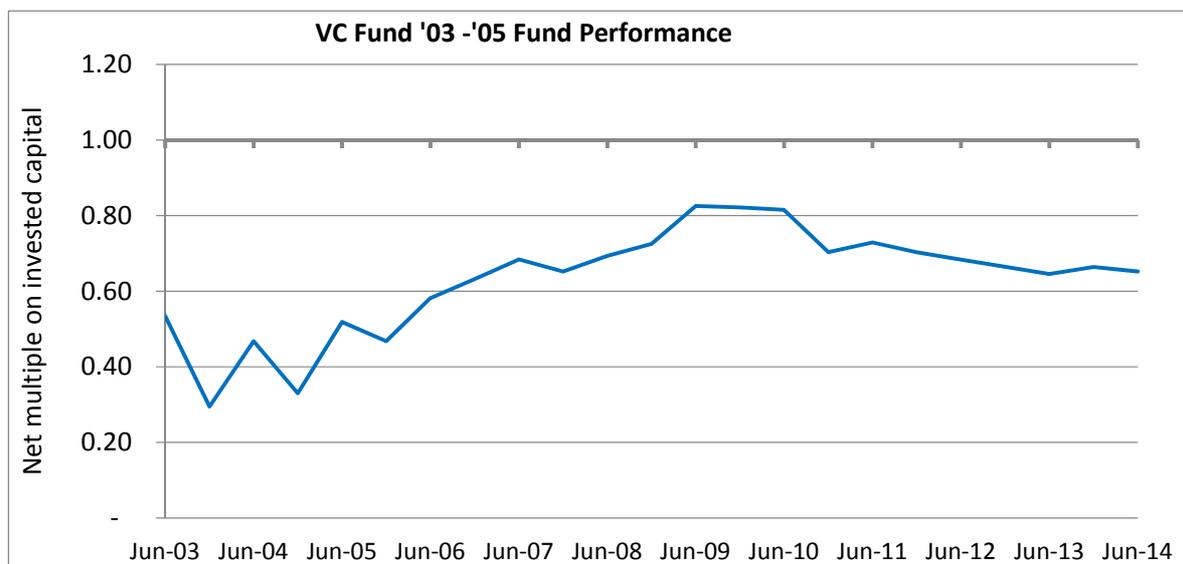
a. NZVIF VC Funds 2003-2005 vintage

There are five funds in the 2003-2005 cohort, representing \$65 million of invested capital. A total of \$17 million has been returned and \$26 million of unrealised value. These funds typically have an earlier stage focus than the post 2007 funds. The buy-out option for these funds has expired.

Table 12: VC Fund performance 2003-2005

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
VC Funds '03-'05 (net)	-7.0%	0.65	0.26	0.39

Graph 6: VC Fund 2003-2005 fund performance



The performance of the initial cohort of funds that NZVIF invested has been disappointing for number of reasons:

- The majority are managed by first time fund managers who faced a steep learning curve.
- The investment strategies were seed and start-up focused.
- The GFC has impacted on the progress of companies; the timing of exits for funds in some cases has resulted in companies having to raise further dilutive capital at the expense of the VC funds.
- Globally the 2003-2005 vintages have performed poorly, the global VC benchmark median return for the 2003-2005 vintages are 0.0%, 3.4% and 0.3%⁵ respectively.

⁵Preqin Market Benchmarks – Global VC 2003 - 2005

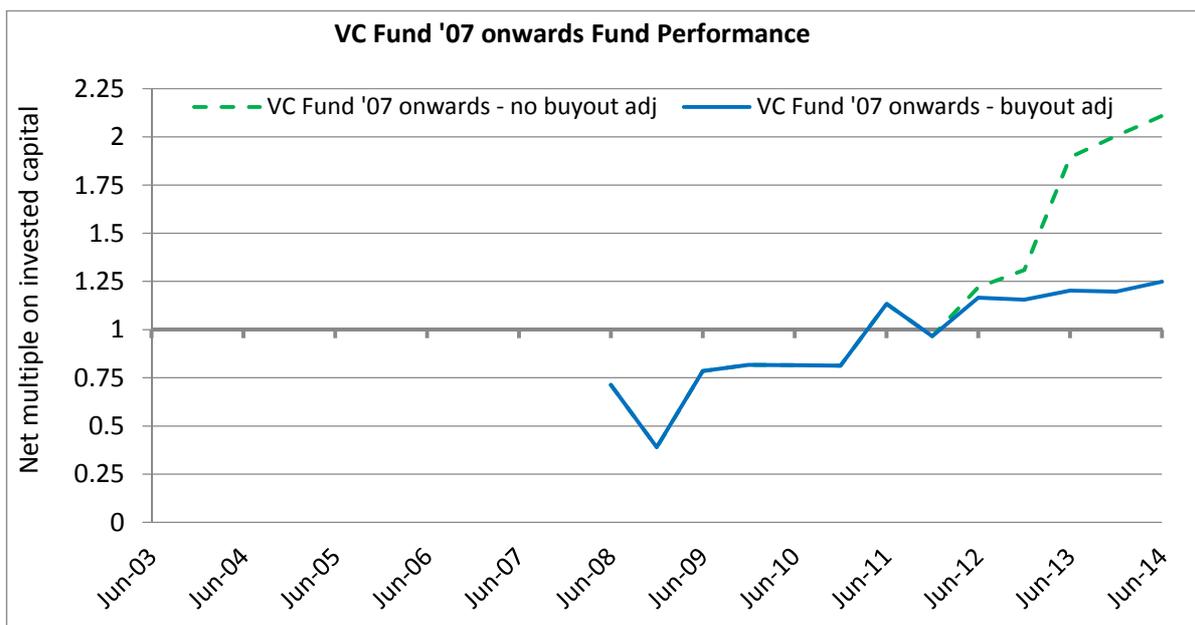
b. NZVIF VC Funds 2007+Vintage

There are five funds in the 2007 onwards cohort, representing \$55 million of invested capital. Three of these funds are still able to make new investments. To date a total of \$8.2 million has been returned with \$60.5 million of unrealised value.

Table 13: VC Fund performance 2007 onwards

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
VC Funds '07 onwards' (net)	8.0%	1.25	0.15	1.10
VC Funds '07 onwards' (net - no buy out adjustment)	26.0%	2.11	0.15	1.96

Graph 7: VC Fund 2007 fund performance



While the interest from New Zealand institutions remains muted, a combination of offshore institutional investors and onshore individual investors have combined to support recently established VC funds.

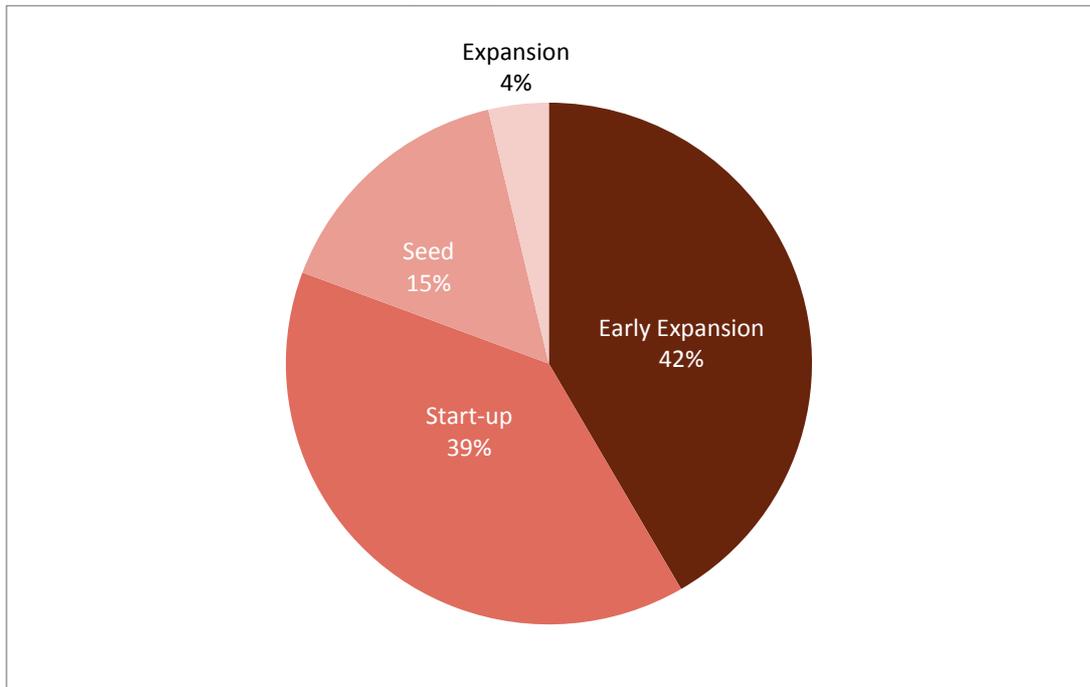
Portfolio Highlights

NZVIF has invested into 10 VC Funds, managed by nine different fund managers. *Annex 4* provides a summary of each VC Fund NZVIF has invested in.

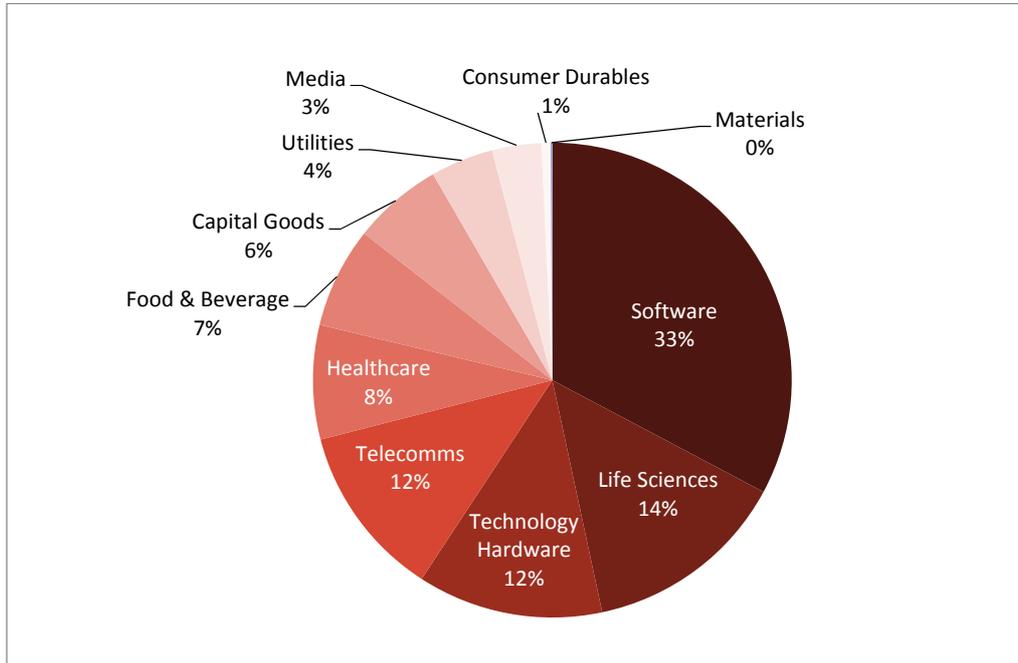
Through these VC Funds, NZVIF has had exposure to 66 companies, of which 23 have been exited. Aggregate revenues across the portfolio companies exceeded \$400 million in March 2014 year, up 19% on the previous year. Revenues have grown at 20% p.a. over the past three years.

The following charts show NZVIF stage and sector exposures by dollars invested.

Graph 8: VC Fund investments by stage



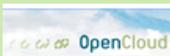
Graph 9: VC Fund investments by sector



Company profiles

A number of VC Fund portfolio companies are making significant progress in global markets, these include:

Company	Synopsis	Investors
	<p>Established in 2001. Software for patient management for healthcare institutions.</p> <p>Markets: USA, Europe, Middle East</p> <p>Annual revenues of NZ\$150m+</p>	
	<p>Founded in 2006. SaaS software solutions to SMEs.</p> <p>Markets: USA, Australia, Europe</p> <p>Annual revenues of c. NZ\$70m</p> <p>Valuation of c. NZ\$3b</p>	
	<p>Founded in 2001. Site search software to large e-commerce websites.</p> <p>Markets: UK, US, Australia</p> <p>Annual revenues of c. NZ\$21m</p> <p>Valuation of c. NZ\$70m</p>	<p>Listed on the NZX in 2013.</p> 

Company	Synopsis	Investors
	<p>Founded in 2007. Unique surgical tissue from animal products. FDA approved products.</p> <p>Markets: USA, Europe</p>	
	<p>Invested in 2006. Software for telecommunications.</p> <p>Markets: UK, Europe, Asia</p> <p>Annual revenues of c.NZ\$15-20m</p>	
	<p>Founded in 2003. Wireless monitoring technology.</p> <p>Markets: USA, Europe, Asia, Middle East, Africa</p> <p>Recently sold to US listed Healthcare company.</p>	
	<p>Founded in 2008. Animated screen producer.</p> <p>Markets: Worldwide</p> <p>Thunderbirds, Wot Wots, Jane and the Dragon.</p>	
	<p>Invested in 2007. Designs and manufactures innovative health devices.</p> <p>Markets: USA, Europe</p> <p>Annual revenues of c.NZ\$62m</p>	
	<p>Founded in 2007. Industrial wireless power technology.</p> <p>Consumer and industrial focus</p> <p>Markets: UK, US, Asia</p>	
	<p>Founded in 2010. Designs point-of-sale software for retail.</p> <p>Markets: worldwide, used in 10,000 stores</p> <p>Raised Series B US\$20m in March, 100+ staff.</p>	
	<p>Founded in 2007. Robotic disability equipment.</p> <p>Markets: UK, Europe, USA</p> <p>Listed on AIM, market cap of c.UK£85m</p>	
	<p>Automated data warehouse development software.</p> <p>Markets: USA, Europe, Asia</p> <p>Annual revenues of c.NZ\$20m</p>	

Company	Synopsis	Investors
	Enterprise Authoring Platform software Markets: US Experiencing rapid growth	
	Real-time animal health monitoring Rapidly growing farm management technology sector Early stage, minimal revenues	
	Founded in 2006. Laser accurate Smartphone measurement solution Markets:, USA Listed on NZX July 2014	

Annex 5 lists all the companies the VC Fund has investments in to date.

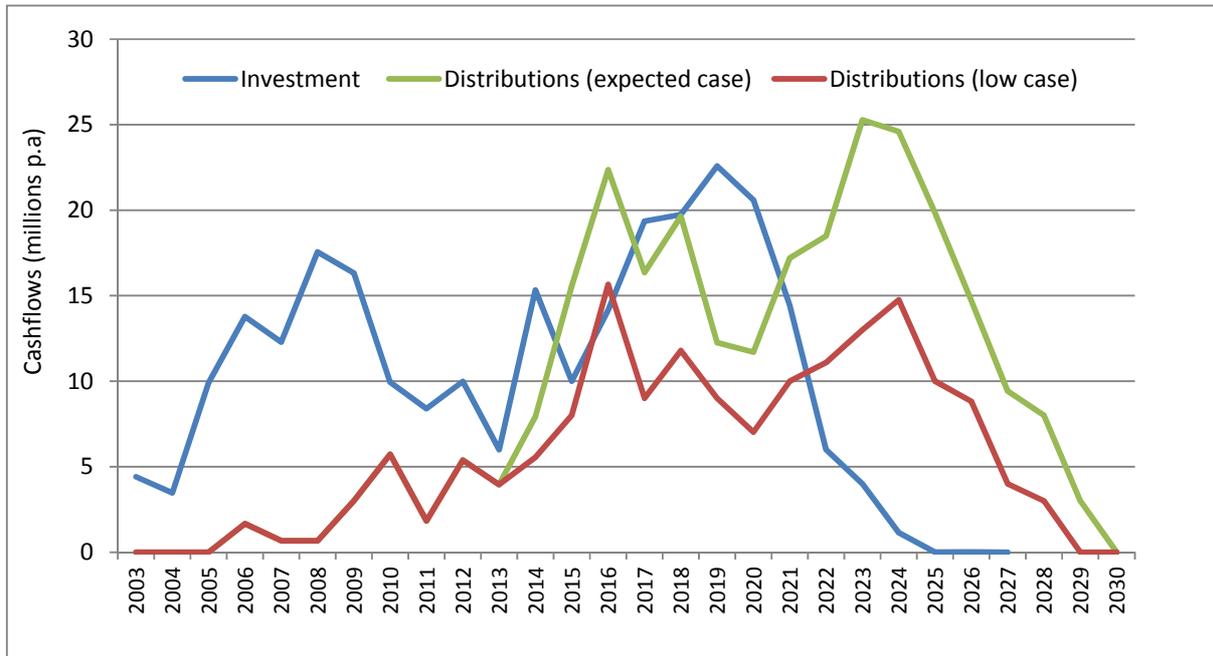
Expected Future Performance

Conservatively NZVIF expects the overall return to the Crown of between 0.70x to 1.05x on its investment in VC Funds. The overall return is limited by the relatively poor performance of the initial VC funds as well as the effect of the buyout option which caps NZVIF's upside in good performing funds.

Over the next 2-3 years NZVIF is anticipating a significant level of capital returns, with between \$30 million to \$50 million expected to be distributed to NZVIF from VC Funds. The key drivers for this level of capital returns are:

- NZVIF has exposure to a number of listed or about to be listed companies; we anticipate that these investments will be liquidated once the standard 'lock up' periods expiry,
- The initial cohorts of VC funds are now in liquidation mode and NZVIF has visibility to a number of exits from these funds, and
- NZVIF expects that the buyout option for the Valar Ventures Fund will be exercised in this period.

Graph 10: VC Fund cash flows – actual and forecast



Annex 1: VC Fund Capital Commitment / Cash Flow Model

	2014 (actual)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
VC Fund Capital Commitments to VC Funds (p.a)*	25	25	40	0	15	0	0	0	0	0	0	0						260
Cumulative NZVIF capital commitments	180	205	245	245	260	260	260	260	260	260	260	260						
Total investment by VC Fund (p.a)	15	10	14	19	20	23	21	14	6	4	1	0	0	0				259

Return scenarios

Distributions received by VC Fund (expected case)**	4	16	22	16	20	12	12	17	20	25	25	20	18	12	9	5	0	274
Distributions received by VC Fund - (low case)	4	10	9	10	9	9	7	8	5	12	15	13	11	7	6	2	2	160

VC Fund capital drawn from Crown (p.a.)

Capital drawn by VC Fund - expected	15	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105
Capital drawn by VC Fund - low	15	5	0	6	11	14	14	6	3	0	0	0	0	0	0	0	0	158

VC Fund cash balance (at year end)

Cash held by VC Fund - expected	7	18	26	23	23	12	3	6	18	38	62	82	100	112	121	126	126	126
Cash held by VC Fund - low	6	11	6	2	2	2	2	2	2	9	23	36	47	54	60	62	64	64

*Assume commitments up to level of underwrite

** Assumptions

The scenarios in the attached cash flow model are based on NZVIF's view of the prospects of the existing portfolios and take into account a set of assumptions regarding future capital commitments and investments, which have previously been developed for the forecasts contained in the NZVIF Statement of Intent. Some of the key assumptions underpinning the cash flow model are:

- Investment commitments are based on the \$160 million of capital allocated to NZVIF, plus \$100 million underwrite. In addition to forecasts regarding existing fund performance, standard assumptions have been made regarding future performance of future funds yet to be established.
- Forecast distributions from existing funds are based on fund managers' expected performance.

The timing and quantum of proceeds have been adjusted under the two different scenarios. Actual distributions will depend on the future progress of the investments and economic environment at the time of exit.

- Forecast distributions of new funds (yet to be established) are conservative and have been based on the experience of existing funds that NZVIF has invested into.
- The buyout option has been built into this model; it is assumed that Valar Ventures and Pioneer Capital II will exercise the buyout. No other buyout options are forecast to occur.

Investment activity by new funds is consistent with previous experience (both new investment and follow on).

Annex 2

NZVIF currently has \$300 million of funds under management invested through two vehicles:

- Seed Co-investment Fund (SCIF) - \$40 million.
- Venture Capital Fund of Funds (VC Fund also called “VIF”) - \$260 million⁶.

SCIF

Size of Fund	\$40m
Type of Fund	A co-investment fund. NZVIF invests directly into portfolio companies (alongside pre-qualified private investment partners).
Investment Size	\$250,000 initial \$750,000 maximum
Investment Stage	Seed and start-up
Investment Type	Equity investment directly into companies.
Eligible Industries	New Zealand companies, technology and innovation.
Non Eligible Industries	Property, financial services, mining and retail.

VIF

Size of Fund	\$260m (includes \$100m Government underwrite).
Type of Fund	A venture capital fund of funds. NZVIF invests indirectly through privately managed venture capital funds (managed by prequalified venture capital and private equity fund managers).
Investment Size	\$25m maximum into any single fund.
Investment Stage	Early stage
Investment Type	Equity investment, alongside private investors, into venture capital funds.
Features	Option for investors to buy-out NZVIF interest in fund, up to midpoint of fund life. Option is priced based on five year bond rate.
Eligible Industries	New Zealand companies, technology and innovation.
Non Eligible Industries	Property, financial services, mining and retail.

⁶Comprising \$160m capital commitment and \$100m underwrite.

Annex 3: List of SCIF Backed Companies



Annex 4: VC Fund Current Partners

Name	Vintage	VIF Capital Allocation (\$million)	Total Fund Size (VIF + Private)	Drawdown of VIF Capital	Number of Investments	Number of Exits ⁷	Status
No 8 Ventures No2 Fund	2003	\$11.8 m	\$35.25 m	\$11.8 m	9	4	Post fund life – liquidation mode
TMT Ventures	2003	\$ 21 m	\$63 m	\$20.6 m	9	7	Post fund life – liquidation mode
Endeavour i-Cap Fund	2004	\$13 m	\$39 m	\$13 m	18	9	Post fund life – liquidation mode
iGlobe Treasury Fund	2004	\$10.4 m	\$31.2	\$10.4 m	6	2	Post fund life – liquidation mode
BioPacific Ventures	2006	\$10 m	\$49 m	\$9.5 m	5	1	Post investment period
Pioneer Capital Partners I	2007	\$20.0 m	\$65.9 m	\$16.9 m	9	2	Post investment period
VIF Annex Fund	2009	\$15 m	\$45 m	\$12.2 m	12	1	Post fund life - Annex Fund linked to individual fund life.
Movac 3	2011	\$16.5 m	\$42.5 m	\$8.5 m	6	0	Investment period
Valar Ventures	2011	\$ 20 m	\$40 m	\$8.5 m	4	1	Investment period
Pioneer Capital Partners II	2013	\$18.8 m	\$150 m	\$5.7 m	4	0	Investment period
GRC	2014	\$25 m	\$80 m	-	-	-	Investment period
TOTAL		\$181.4 m	\$641 m	\$120.7 m	66⁸	23²	

⁷Exits include sale of fund manager shareholding, receivership/liquidation or where the business has stopped trading.

⁸Total number of companies differs to the sum of investment due to co-investment between the VC Funds.

Annex 5: List of VC Fund Backed Companies

