



New Zealand  
**Venture  
Investment  
Fund**

**New Zealand Venture Investment Fund**

# **INVESTMENT REPORT**

**JANUARY 2016**

**FOR THE YEAR TO 30 JUNE 2015**

## INTRODUCTION

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The New Zealand Venture Investment Fund has partnered with 10 venture capital funds and 15 angel investment funds or networks. It operates two funds – the \$250 million Venture Capital Fund and the \$50 million Seed Co-Investment Fund. Alongside its partners through these two funds, NZVIF has invested into 190 technology companies (as at 30 June 2015), some of which are among New Zealand’s most promising growth companies.

This report outlines how those 190 companies performed at the portfolio level in terms of investment returns. It should be noted at the outset that NZVIF’s role is not to generate a rate of return on investment in the way, for example, the New Zealand Superannuation Fund and other Crown-owned commercial entities are expected to. Its core role is to catalyse private sector venture capital and angel investment, and to develop deeper capability within those sectors.

The reason that NZVIF publishes reports on investment performance is because it recognises that success in developing early stage capital markets will, ultimately, be driven by investment success. In that context, NZVIF has deliberately focused on partnering with venture capital fund managers and angel funds and networks with the potential to achieve investment success, alongside a long term commitment to developing a presence and expertise in our early stage investment market.

The first section reports on NZVIF’s impact on developing the venture capital and angel group sectors, and combines the Venture Capital (VC) Fund and the Seed Co-Investment Fund (SCIF) into an overall NZVIF investment return. The bulk of the report breaks down the investment performance of the VC Fund and SCIF from establishment through to 30 June 2015. In reporting on the VC Fund performance, two investment measures have been included – overall portfolio performance and the ‘buy-out’<sup>1</sup> adjusted performance. When NZVIF reports to the Crown on investment performance, the buy-out option needs to be factored in. However, the underlying VC Fund performance and the investment result achieved are more relevant for understanding the fund’s performance in the market place.

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<sup>1</sup>Under NZVIF’s buy-out clause, the private investors in a VC fund have the option to exercise a buy-out of NZVIF’s share in the fund in the first five years of the fund life, at a price which returns NZVIF its capital invested plus a rate of return on that capital equal to the yield on the five year Government bond rate. This clause was a deliberate policy design to help attract private investors to invest into high risk venture capital investment opportunities, in line with NZVIF’s core role of stimulating market activity. Earlier this year, the Government removed the requirement for the buy-out clause to be a feature of any new VC funds.

## NZVIF PERFORMANCE

NZVIF's core role is to stimulate and catalyse private investment into venture capital and angel investments. In its core objective of catalysing investment, NZVIF is exceeding expectations.

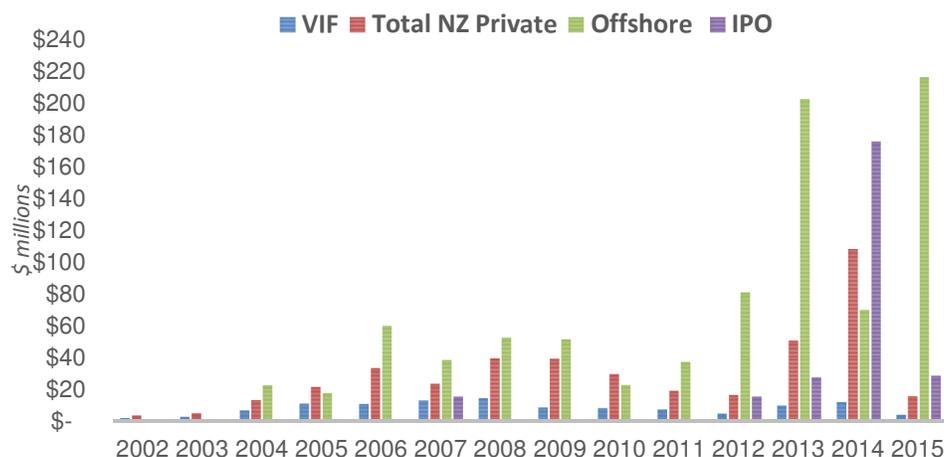
**Table 1: NZVIF Performance**

Number of portfolio companies	190
Total investment	\$147.8m
Total portfolio value	\$156.3m
Total number of VC and Seed partners	25
NAV (net cash multiple)	0.988
Net IRR (p.a.)	-0.2%
Cash returned to NZVIF	\$36.5m
Private investment into portfolio companies	\$1.7b
Leverage ratio	1 : 11
Cumulative portfolio PAYE paid to Crown	\$160m

On the VC Fund, NZVIF invests on a 2:1 basis in that there needs to be at least \$2 of private investment for every \$1 invested by NZVIF. NZVIF has invested \$105 million into 67 companies via the VC Fund. Those companies have raised over \$1.5 billion of private capital.

Capital for VC is raised from a range of sources – as shown in Chart 1 – including the VC Fund, private New Zealand investors, public markets, and offshore. The particularly large years of offshore investment reflects interest in large listed companies in the portfolio.

**Chart 1: Total capital raised by NZVIF VC funded companies**



For SCIF, there is a 1:1 requirement. The \$38 million invested via the Seed Fund has been matched by over \$175 million from private investors.

The direct leverage effect is \$1 of NZVIF investment to \$3.30 from our partners. The overall leverage effect is around \$1 of NZVIF investment to \$11 from private sources.

It is difficult to determine how much of that private investment might have occurred if NZVIF had never been established, but it is perhaps notable is that no private venture capital funds have been established over the last 15 years without NZVIF's involvement.

By way of international comparison, the United States' venture capital sector grew out of a long term partnership in which private enterprise was supported by decades of US government contracts and subsidies. The Small Business Investment Act was enacted in 1958 to provide federal funding for US venture capital firms. In its first decade, the programme invested US\$3 billion into young firms – over three times the amount invested by private venture capital funds. Today the US government continues to provide support for venture capital funds under the programme, in a mechanism that is strikingly similar to NZVIF's VC Fund.

The nature of early stage investing is that portfolio results are determined by a relatively small number of companies. For every ten companies in a portfolio, four to five will make no money, two to three will return the capital invested but little more, and one or two companies will do well and contribute the vast bulk of returns. That is being borne out in the NZVIF portfolio, where around 90 percent of the value is being generated by around 10 percent of the companies.

To 30 June 2015, NZVIF had invested \$147.8 million into the 190 companies across the VC and SCIF portfolios. The total value of those investments at 30 June 2015 was \$156.3 million. (Post the reporting date, the portfolio's value had risen to over \$181 million as at 31 December 2015, driven by a rise in value of a number of listed companies in the portfolio.)

## VENTURE CAPITAL FUNDS

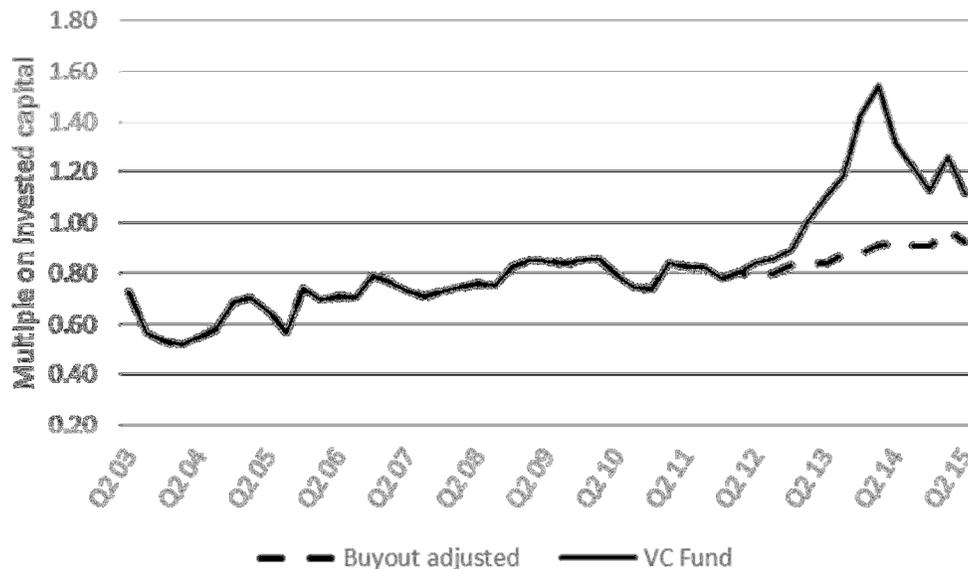
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Individual VC fund performance is measured by the amount of capital returned to investors relative to the amount of capital invested (cash on cash). As the ultimate performance of a VC fund is not known until the last investment is realised, the interim performance is measured by taking into account capital returned to investors, along with the current holding value of the unrealised investments. The interim performance tends to understate the expected final performance as unrealised investments are typically valued conservatively<sup>2</sup>. Furthermore, as the majority of investments are in privately held companies, market prices upon which to base value are not readily available.

### INVESTMENT PERFORMANCE

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).

*Chart 2: VC Fund performance*



As at 30 June 2015, the return on investment in the VC Fund was \$1.11 for every dollar invested. Of the \$1.11, \$0.22 is cash returned with the remaining unrealised portfolio amounting to \$0.89. This represents an overall IRR (internal rate of return) of 1.8 percent per annum.

<sup>2</sup> Investments are valued using industry standard practice and comply with NZ IFRS. See the appendix for further explanation.

At the same time last year, the return was \$1.33. The reduction over the past year has been driven by the decline in value of some of the large listed investments in the portfolio compared to 12 months ago. Around 42 percent of the unrealised portfolio companies by value are on a public exchange. These companies include Xero, SLI Systems, Orion Health, ikeGPS, Moa Brewing, Adherium, Rex Bionics and Martin Aircraft. Post the reporting period, the value of the portfolio has rebounded.

Factoring in the impact of the buy-out option, NZVIF's return on the Crown's investment to date is \$0.93 for every dollar invested. Of the \$0.93, \$0.22 is cash returned with the remaining unrealised portfolio valued at \$0.71.

The companies being invested into are fast growing. Over the past year, VC Fund-backed companies averaged 37 percent growth in annual revenues.

**Table 2: VC Fund portfolio value as at 30 June 2015**

	VC Fund	Buy-out adjusted
Capital drawn from Crown for VC Fund	\$105m	\$105m
Total VC Fund portfolio value <sup>3</sup>	\$123.9m	\$99.8
NAV (net cash multiple)	1.11	0.93
Net IRR (p.a.)	1.76%	-1.74%
Total invested into companies	\$109.6m	\$109.6m
Total invested into Funds	\$129.7m	\$129.7m
Cash returned to NZVIF	\$32m	\$32m
Number of portfolio companies	67	67
Number of exits (includes write offs)	38 (57% of portfolio)	38

## VINTAGE ANALYSIS

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.

### **NZVIF VC Funds 2003-2005 vintage**

There are five funds in the 2003-2005 cohort, representing \$67 million of invested capital. A total of \$23 million has been returned to NZVIF with \$24 million of unrealised value still held in the portfolio. This represents a return to investors of -5.47 percent per annum and a multiple of 0.7 times. As the buy-out

<sup>3</sup> Includes \$8.26m cash held on NZVIF balance sheet from distributions.

option expired without being exercised, NZVIF has achieved the same result as private investors in these funds.

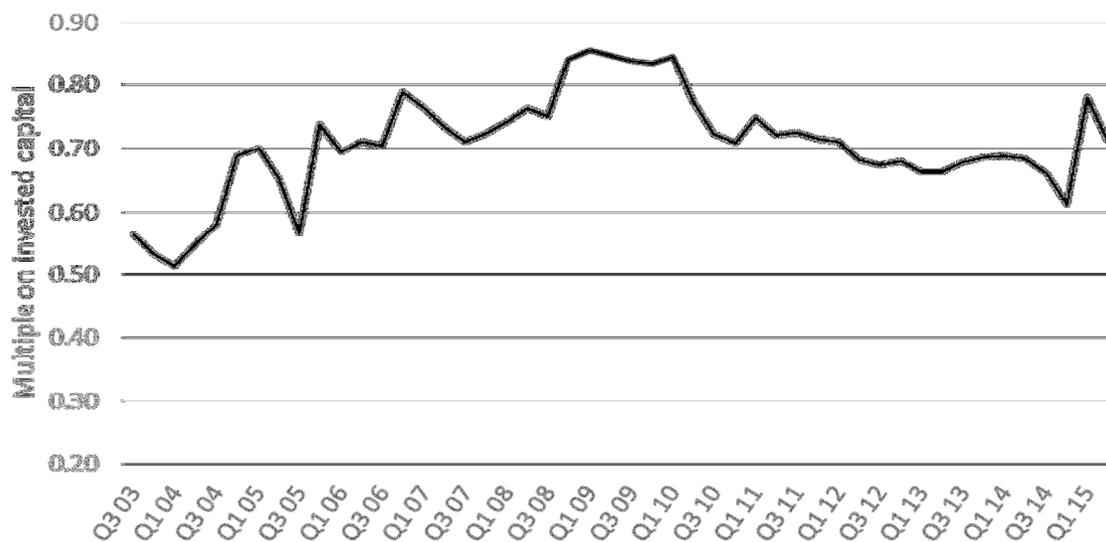
**Table 3: VC Fund performance 2003-2005**

	IRR (%)	Multiple(x)	Returned Capital	Unrealised Value
VC Funds 2003-05 (net)	-5.47%	0.7	0.33	0.37

These five funds suffered – as VC funds of this vintage did globally – due to the significant challenges posed by the global financial crisis (GFC) of 2008-09. Growth companies were hit particularly hard through this period – both in terms of market development in an economic downturn, and the dearth of capital available for high-risk investment classes just at the point when many companies were planning expansion or exit. While there are still a handful of assets to be realised from this period, the impact on overall returns is not expected to be significant.

It can also be noted that while these funds’ investment performance was affected by the GFC, from the Crown’s perspective there was public benefit in terms of developing the market and the entrepreneurial ecosystem. When a fund invests in a company and it fails, out of that failure might emerge other companies. What is a poor investment for the venture capital investor can be a very good investment from the government’s perspective.

**Chart 3: VC Fund 2003-2005 fund performance**



## NZVIF VC Funds 2007-2014 Vintage

There are six funds in the 2007-2014 cohort (this includes NZVIF's Annex Fund and the GRC Sinogreen Fund, which recently had a final close at US\$105 million) representing \$63 million of invested capital. Four of these funds are still investing. To date, a total of \$5.3 million has been returned to NZVIF with \$67 million of unrealised value.

As at 30 June 2015, the return on investment across those funds was \$1.54 for every dollar invested with an IRR of 12.7 percent per annum. Of the \$1.54, \$0.08 is cash returned with the remaining unrealised portfolio amounting to \$1.46.

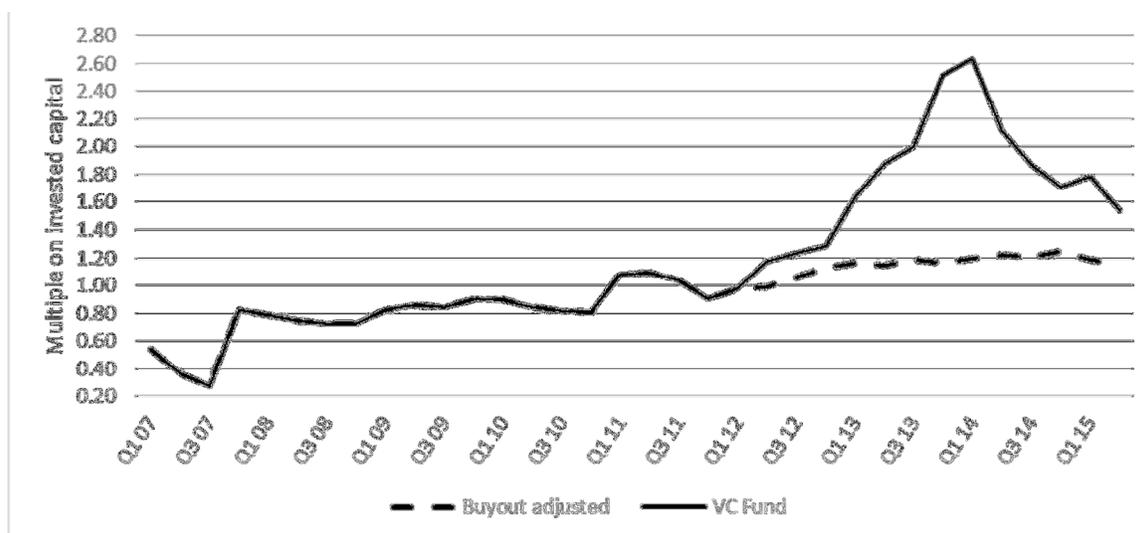
Factoring in the impact of the buy-out option, NZVIF's return to date is \$1.16 for every dollar invested with an IRR of 4.4 percent per annum. Of the \$1.16, 8 cents is cash returned with the remaining unrealised portfolio valued at \$1.08.

**Table 4: VC Fund performance 2007 onwards**

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
VC Funds 2007-14	12.67%	1.54	0.08	1.46
VC Funds 2007-14 (buy-out adjusted)	4.36%	1.16	0.08	1.07

Overall, the companies within this portfolio have experienced healthy growth and have been able to raise follow-on capital at improved valuations. It should be noted, however, that this portfolio is still largely unrealised and continues to experience volatility, particularly amongst the listed technology companies (including Xero, SLI Systems and Orion Health). NZVIF anticipates that the returns from this cohort of funds will meet investors' expectations.

**Chart 4: VC Fund 2007 onwards fund performance**



## NZVIF VC FUND COMPANIES BY SECTOR

As at 30 June 2015, the VC Fund's 67 companies had achieved an overall return multiple of \$1.35 and IRR of 5.06 percent. Of the \$1.35, \$0.27 is cash returned with the remaining unrealised portfolio amounting to \$1.08<sup>4</sup>.

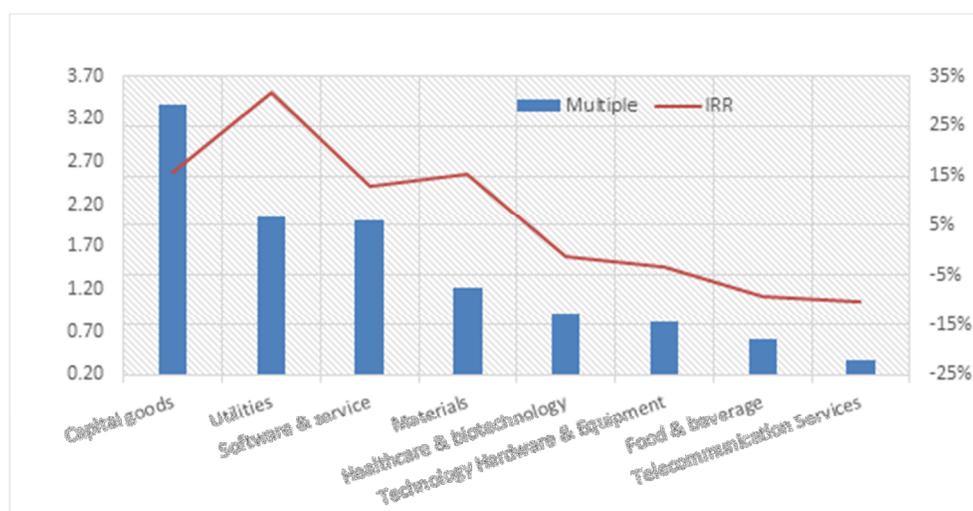
Breaking down the portfolio into sectors, the top performing sectors are utilities, capital goods, materials and software & services, which all achieved double digital IRR. Utilities – which involved one company in the clean energy sector - returned \$2 for every dollar invested with a full exit.

*Table 5: VC Fund performance by sector*

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
Utilities	31.67%	2.05X	\$2.05	\$0
Capital goods	15.79%	3.37X	\$0.27	\$3.10
Materials	15.37%	1.22X	\$0.20	\$1.02
Software & service	13.00%	2.01X	\$0.46	\$1.55

The capital goods sector is, to date, the second best performing by IRR (15.8 percent) but is achieving the highest multiple (3.4 times). The latter is, however, mostly unrealised value. Examples of capital goods companies in which the VC Fund is an investor include Waikato Milking Systems and Martin Aircraft. (SCIF has also invested in this sector into companies like Halo IPT and Balex Marine.)

*Chart 5: VC fund performance by sector*



<sup>4</sup> Note that the company level result differs from reporting at the fund level as it does not include management and performance fees

## SEED CO-INVESTMENT FUND

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SCIF has entered into 15 angel investment partnerships and made equity investments into 133 companies. Since SCIF began investing in 2007, the formal angel investment sector has grown steadily, with angel investment networks and funds investing an average of \$45 million a year over the last five years. In 2014, the sector invested a record \$55.9 million.

Among the SCIF portfolio's 133 companies, 27 percent are sourced from universities and Crown Research Institutes, and 21 percent have graduated out of various incubator and accelerator programs. These investments are typically at a very early stage of development – this is often the first round of third party capital to enable validation of a commercial opportunity – and are recognised as being very high risk.

SCIF invests alongside its angel investor partners on the same commercial terms. Among the SCIF investee companies, the average size of total capital raised by each start-up company is \$1.8 million, with 82 percent of these deals being syndicated between multiple angel groups, among which, on average, \$310,000 is funded by SCIF and the rest comes from angel investors. This gives a public-private sector matching ratio of \$1 to \$5.60.

Over the last three years, the focus has shifted towards 'follow-on' investment versus 'new', as angel investors have developed their portfolios and then continued to invest in well performing companies. Three years ago, around two-thirds of angel investments were new. Now, new investments comprise around a third of the total invested. This pattern is in line with international angel investment trends.

What we are seeing in the New Zealand market is that once an angel group has established a portfolio of investments of anything greater than 10 to 15 companies, the majority of both time and funding is devoted to portfolio management. It usually takes a typical angel group around four years to develop a portfolio of 15 companies, and around eight years before the first positive exit is achieved. As much as four times the initial investment should be reserved by angels for follow-on investments into successfully developing companies.

**Table 6: Seed Co-investment Fund investment activity as at 30 June 2015**

<b>Number of Angel Partnerships entered into</b>	15
<b>Number of active Angel Partnerships (invested in past year)</b>	12
<b>SCIF Investment in Companies</b>	\$38.2m
<b>Total Amount Invested (SCIF + all private)</b>	\$214m
<b>Proportion of syndicated deals</b>	82%
<b>Number of Companies Funded</b>	133
<b>Average size of total capital raised per company</b>	\$1.8m
<b>Average SCIF Investment per Company</b>	\$310,000

## INVESTMENT PERFORMANCE

As at 30 June 2015, SCIF had invested \$38.2 million. The total value of the SCIF portfolio (including cash returned) was \$39.6 million.

Valuation of the SCIF portfolio, like the VC Fund, is approached conservatively (see appendix). As at 30 June 2015, 31 of the 133 companies – around a quarter - in the portfolio had their holding values written down to zero. Of those, only 16 companies have formally been liquidated or entirely ceased to operate. The other 15 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.

The top 30 companies – a quarter of the portfolio - account for 70 percent of the total unrealised portfolio value. Among those 30 companies, 36 percent of the unrealised portfolio by value are software & service companies and 37 percent are healthcare and biotechnology companies. Currently, these are the top two performing sectors in the SCIF portfolio.

SCIF's modelling of future investment performance shows that the return on investment across the full SCIF portfolio is expected to be in the range of 0.80 times–1.5 times capital invested by 2026. These values are conservative, reflecting the high risk profile of pre-seed and seed stage investments. As would be expected, these returns are also highly sensitive to one-off positive outlier returns (such as those generated by Xero and Orion Health in the VC portfolio).

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. Furthermore, internationally, angel investors are hugely diverse in their investment approach and preferences, and intrinsically private. This makes it 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.

SCIF is relatively 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. Software companies are becoming increasingly popular with angel investors and software company revenue growth was over 70 percent in the past year. Other popular sectors are pharmaceuticals/life sciences, and technology hardware. The portfolio's diversification significantly increases the probability of the portfolio generating positive investment returns over time. It is also likely that the maxim that 90 percent of returns will be produced by 10 percent of exits will hold true for the SCIF portfolio over time.

Over the past year, SCIF-backed companies averaged 55 percent annual revenue growth.

**Table 7: SCIF portfolio performance as at 30 June 2015**

	SCIF
Total no. of investments	133
Amount invested	\$38.2m
Holding value of investments in portfolio companies	\$33.2m
Amount received from exits	\$4.5m
Total portfolio value (including cash)	\$39.6m
Investment multiple	1.03
Portfolio IRR since inception	1.04%
Median age of investment	36 months
No. of exits	17 (13% of portfolio)
No. of write-offs	27 (20% of portfolio)

### SCIF Funds Performance

There are 15 angel partners managing 17 SCIF funds (two partnerships have been renewed). Currently, 12 of the partnerships are active.

The investment return varies among different angel partners, with the highest IRR of 35 percent and multiple of 1.71 times. There are 8 angel funds or networks generating positive IRR and multiples above 1 times, with most of this still being unrealised value.

## CONCLUSION

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The investment performance to 30 June 2015 highlights both the volatility of early stage investing and the reliance on a few 'outlier' investments to generate the bulk of the returns. The overall portfolio result is positive based on a very conservative valuation assessment. While it is down on the previous year, this is due mainly to the volatility of listed portfolio companies, which now comprise over 40 percent of the value of NZVIF's portfolio. (The volatility is illustrated in that - post the reporting period - the portfolio's value rebounded and was \$181.6 million at 31 December.)

The report illustrates the positive performance of the venture capital funds post-GFC. The first cohort of funds suffered through the challenging environment of 2008 to 2010. Venture capital funds established since then have delivered much better investment returns, and benchmark well alongside venture capital funds internationally.

The United States early stage investment sector took several decades to become what it is today, while the challenge for New Zealand is to maintain the progress and development seen over the past 15 years.

New Zealand's venture capital and angel investment sector are still at relatively early stages of development. In the early 2000s, there were very few angel investors and no venture capital funds. NZVIF was then established in 2002 with the goal of catalysing venture capital investment in New Zealand. At that time there was a virtual absence of risk capital available for young technology companies, as well as a lack of the formal investment structures and institutional capital required to support those companies as they grew.

The picture in 2015 is very different. Over the past year, alongside NZVIF's investment, our venture capital fund partners invested \$21.5 million, and our angel investor partners invested \$16.6 million. Including other private investment, a total of around \$85 million was invested into start-ups during the year. Across both funds since establishment, NZVIF has invested \$148 million as part of total investment of \$1.7 billion, producing an overall public/private fund leverage effect of 1:11.

Another NZVIF objective is to contribute to the Government's economic growth objectives, through the growth and success of the companies that NZVIF invests in. Over the past year SCIF-backed companies averaged 55 percent annual revenue growth and VC-backed companies averaged 37 percent annual revenue growth. Two new sharemarket listings were achieved with Orion Health joining the NZX in November 2014 and Martin Aircraft listing on the ASX in February. These IPOs take the number of NZVIF listed companies to seven. (Post 30 June 2015, Adherium has also listed, taking the total to eight.)

As a final point, the total amount invested by NZVIF to date is \$147 million. The total PAYE tax paid back to the Crown by companies in which NZVIF has invested and helped develop is \$160 million.

## APPENDIX

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### NZVIF VALUATION METHODOLOGY

NZVIF uses conservative valuation methodology applying international best practice. Many of the early-stage private company valuations NZVIF observes in the market represent a view about the growth and future potential of a company, rather than being based on international best practice for the valuation of this type of asset.

Because NZVIF necessarily takes a conservative approach, our valuation of the same assets will, in many cases, be lower than that of other investors in the same company. It is also not uncommon for the NZVIF estimates of a company's value to be lower than that of the VC fund manager or SCIF partner.

An example of a SCIF portfolio company holding value illustrates NZVIF's conservative approach. At the time of the initial investment in 2007, the company had annual revenues of \$500,000. One subsequent investment round was undertaken for that company at an increased share price, but there was not a material enough level of new investors (at least 25 percent of the round by value) to validate that new price using NZVIF's valuation approach. That company has continued to grow and perform well commercially. It now has annual revenues of approximately \$8 million, representing a compound annual growth rate of 41 percent over an 8-year period, and is cash flow positive. Nonetheless, it is held at the value of the original investment round due to a lack of meaningful third party investment to confirm an uplift in value.

The overall approach is that NZVIF values assets upwards conservatively but will write down - or write off - assets sooner rather than later. This occurs when a company's commercial progress has slowed, when there has not been any new investment for a material period of time, or when there has been investment but at a reduced valuation. All of the companies which are partially written down, and some of the companies valued as a write-off, are still operating and could possibly return more than their current impaired or zero valuation. The holding value, therefore, does not necessarily reflect the return NZVIF will receive over time from its assets.

Under the IFRS accounting rules, NZVIF is required annually to record the 'fair value' of all its portfolio companies for its annual accounts. Valuation of NZVIF's portfolio follows the "International Private Equity and Venture Capital Valuations Guidelines" (IPEV). [www.privateequityvaluation.com](http://www.privateequityvaluation.com)