New Zealand Venture Investment Fund

INVESTMENT REPORT

JANUARY 2017

FOR THE YEAR TO 30 JUNE 2016

INTRODUCTION

The New Zealand Venture Investment Fund has partnered with 11 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 216 technology companies (as at 30 June 2016), some of which are among New Zealand's most promising growth companies.

This report outlines how those 216 companies perform at the portfolio level in terms of investment returns. It should be noted at the outset that NZVIF's role has not been to generate investment returns for the Crown (in the way, for example, the New Zealand Superannuation Fund does). Its core role is to assist the development of early stage capital markets by catalysing 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 always 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 2016. In reporting on the VC Fund performance, two investment measures have been included – overall portfolio performance and the 'buy-out'[1] 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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[1]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. It was borrowed from Israel's Yozma Fund – the model on which NZVIF was designed. Earlier this year, the Government removed the requirement for the buy-out clause to be a feature of any new VC funds.

NZVIF PERFORMANCE

The year to 30 June 2016 saw solid progress across the early stage capital markets, with healthy levels of investment activity. Angel investment activity remains at high levels.

Highlights of the year include:

- During the last 12 months, there was strong growth of investment by private sectors. A total of $184 million was invested into start-ups by NZVIF, NZVIF partners and private investors, representing a 107% increase compared with last year.
- NZVIF committed to another new VC fund – GD1 Fund II – which achieved a first close of US$28.56 million. NZVIF has partnered with 11 VC funds since inception.
- Two SCIF funds were renewed. NZVIF has formed 19 SCIF partnerships involving 15 angel funds and groups
- SCIF showed an improved performance with 6.72% IRR and 1.26X multiple compared with 1.04% IRR and 1.03X multiple last year. Several high performing companies are emerging from the portfolio.
- NZVIF received proceeds from 5 portfolio companies. Four of them achieved multiples between 1 to 6X.
- Smart inhaler start-up Adherium listed on the Australian Stock Exchange raising A$35 million, bringing the total NZVIF listed portfolio companies to 8. The total value of these 8 publicly-traded companies accounts for around 20 percent of NZVIF's portfolio value.

NZVIF's core role is to stimulate and catalyse private investment into the venture capital and angel investment sectors.

Table 1: NZVIF Performance – Market Development

Number of portfolio companies	216
Total number of VC and Seed partners	26
Total NZVIF investment	$168m
Private investment into portfolio companies	$1.9b
Offshore private investment into portfolio companies	$1.2b (63% FDI)
Leverage ratio	1: 11
Cumulative portfolio PAYE and Income tax paid to Crown	$167m

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 $121 million into 76 companies via the VC Fund. Those companies have raised over $1.9 billion of private capital.

For SCIF, there is a 1:1 requirement. The $45 million invested via the Seed Fund has been matched by over $249 million from private investors. The direct leverage effect is $1 of NZVIF investment to $2.4 from our partners.

The overall leverage effect is around $1 of NZVIF investment to $11 from private sources across the VC and Seed Fund portfolios.

While the progress in developing early stage capital markets continues, there remains a lack of significant international and offshore institutional and corporate investment in the early stage growth capital (or VC) sector despite a wide array of investable early stage companies with global aspirations – which remains a key constraint for VC funds looking to raise commitments and hinders NZ Inc in its aspiration to build the next generation of technology companies.

Table 2: NZVIF Performance - Investment

	Buyout	No buyout
Total investment	$168m	
Total portfolio value	$143m	$173m
NAV (net cash multiple)	0.91	1.11X
Net IRR (p.a.)	-1.53%	1.59%
Cash returned to NZVIF	$38.5m	

As noted above, at the outset that NZVIF's role has not been to generate investment returns for the Crown (in the way, for example, the New Zealand Superannuation Fund does). Its core role is to assist the development of early stage capital markets by catalysing private sector venture capital and angel investment, and to develop deeper capability within those sectors. NZVIF's returns, from a pure investment returns perspective, need to be considered in this light.

In terms of sources of portfolio return, 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 extremely 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 2016, NZVIF had invested $168 million into the 216 companies across the VC and SCIF portfolios. There are 10 common companies across both funds. The total value of those investments at 30 June 2016 was $143 million. The no-buyout value is $173 million.

This does not include other economic impacts from these investments - such as leverage effect of private capital to public capital, taxes paid by portfolio companies, employment generated etc.

Table 3: NZVIF Performance – Economic Impacts

Companies with enterprise value of over $50m	13
Annual export revenues of portfolio companies	$790m
Combined annual revenues of portfolio companies	$1.1b
Cumulative taxes (PAYE and income) paid by portfolio companies	$173m
Employment created by portfolio companies	5700
Weighted average growth rate – SCIF companies	53%
Weighted average growth rate – VC companies	37%

NZVIF's portfolio companies are generating $790 million in export revenues out of $1.1 billion of total revenues annually. They are also fast growing – with the VC companies showing a 37 percent weighted average growth rate and the SCIF companies even faster at 53 percent.

While the total amount invested by NZVIF to date is $168 million, the total PAYE tax paid back to the Crown by the companies which the Crown's investment has helped to develop is $173 million.

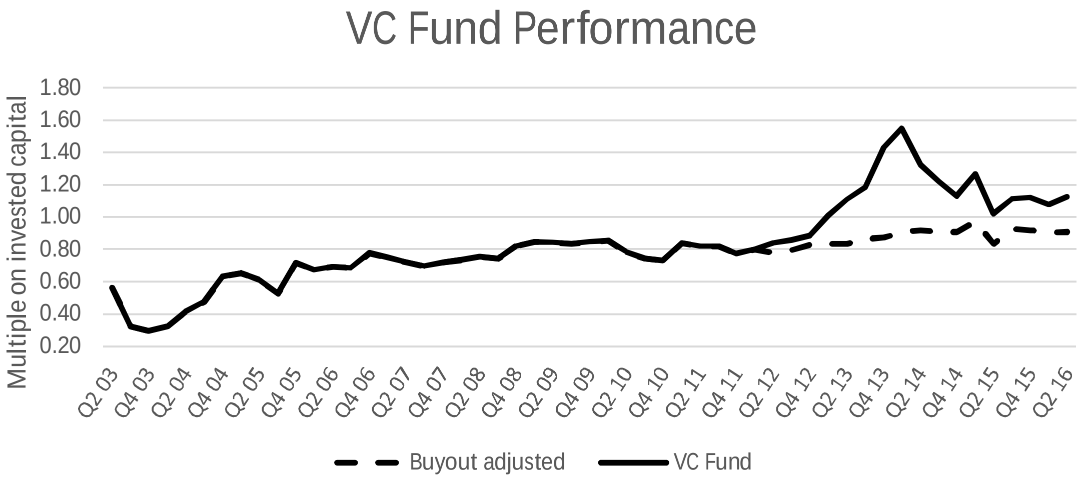
VENTURE CAPITAL FUNDS

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[2]. Furthermore, as the majority of investments are in privately held companies, there are not readily available market prices upon which to base value.

INVESTMENT PERFORMANCE

NZVIF reports its performance based on the aggregated performance of the underlying VC funds as provided by those fund managers operating the domestic VC funds NZVIF has invested in. This performance is expressed as a value per dollar invested (NAV).

Chart 1: VC Fund performance



As at 30 June 2016, the return on investment in the VC Fund was $1.12 for every dollar invested. Of the $1.12, $0.21 is cash returned with the remaining unrealised portfolio amounting to $0.91. This represents an overall IRR (internal rate of return) of 1.39 percent per annum.

At the same time last year, the return was $1.11. The slight increase over the past year has been driven by additional realisation compared to 12 months ago. Around 28 percent of the unrealised portfolio

[2] *Investments are valued using industry standard practice and comply with NZ IFRS. See the appendix for further explanation.*

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.

Factoring in the impact of the buy-out option, NZVIF's return on the Crown's investment to date in domestic VC fund's is $0.91 for every dollar invested. Of the $0.91, $0.21 is cash returned with the remaining unrealised portfolio valued at $0.70.

Table 4: VC Fund portfolio value as at 30 June 2016

	VC Fund	Buy-out adjusted
Capital drawn from Crown for VC Fund	$110m	$110m
Total VC Fund portfolio value[3]	$131m	$100m
NAV (net cash multiple)	1.12	0.91
Net IRR (p.a.)	1.39%	-3.28%
Total invested into Funds	$143m	$143m
Cash returned to NZVIF	$33m	$33m
Number of portfolio companies	74	74
Number of exits (includes write offs)	34 (46% of portfolio)	34

VINTAGE ANALYSIS

VC funds typically have a 10-year life, with the first five years being the 'build' or 'active investment' phase and the second five years being the divestment/selling stage.

We split vintage for following reason:

- Change of mandate – allowed more balanced VC portfolio construction;
- NZVIF undertook its own due diligence on funds rather than relying on an external third party;
- The impact of the GFC on VC funds (i.e. were they harvesting or investing).

NZVIF VC Funds 2003-2006 vintage

There are five funds that were started in the 2003-2006 cohort, representing $67 million of invested capital. A total of $24.3 million has been returned to NZVIF with $10.7 million of unrealised value still held in the portfolio. This represents a return to investors of -5.77 percent per annum and a multiple of 0.52 times. As the buy-out option expired without being exercised, NZVIF has achieved the same result as private investors in these funds.

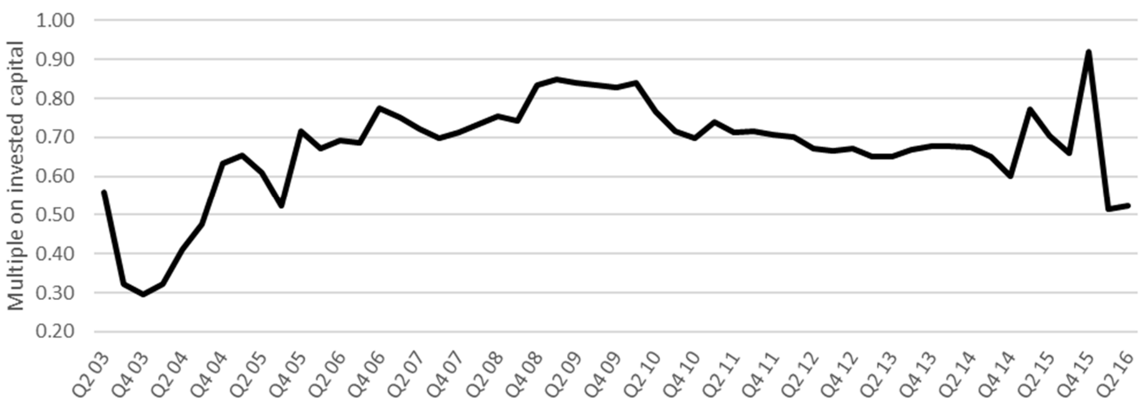
[3] *Includes $8.26m cash held on NZVIF balance sheet from distributions.*

Table 5: VC Fund performance 2003-2006

	IRR (%)	Multiple(x)	Returned Capital	Unrealised Value
VC Funds 2003-05 (net)	-5.77%	0.52	0.36	0.16

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. 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.

Chart 2: VC Fund 2003-2005 fund performance



NZVIF VC Funds 2007-2016 Vintage

There are seven funds in the 2007-2014 cohort (this includes NZVIF's Annex Fund and the GD1 Fund II) representing $76 million of invested capital. Five of these funds are still investing. To date, a total of $6 million has been returned to NZVIF with $89 million of unrealised value.

As at 30 June 2016, the return on investment across those funds was $1.65 for every dollar invested with an IRR of 12.07 percent per annum. Of the $1.65, $0.08 is cash returned with the remaining unrealised portfolio amounting to $1.57.

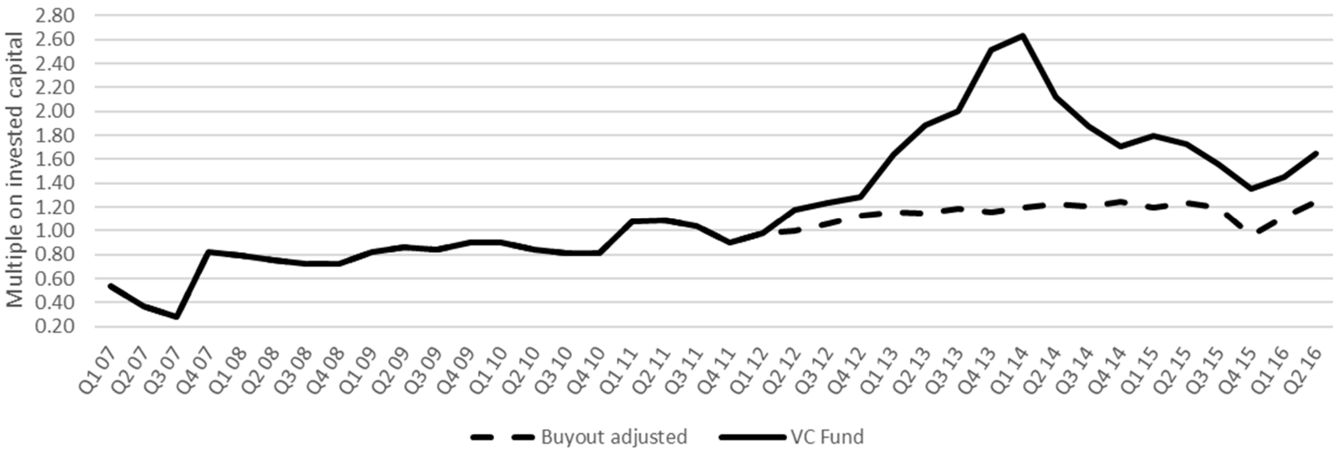
Factoring in the impact of the buy-out option, NZVIF's return to date is $1.25 for every dollar invested with an IRR of 4.25 percent per annum. Of the $1.25, 8 cents are cash returned with the remaining unrealised portfolio valued at $1.17.

Table 6: VC Fund performance 2007 onwards

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
VC Funds 2007-16	12.07%	1.65	0.08	1.57
VC Funds 2007-16 (buy-out adjusted)	4.25%	1.25	0.08	1.17

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, Martin Aircraft, SLI Systems and Orion Health). NZVIF anticipates that the returns from this cohort of funds will meet investors' expectations.

Chart 3: VC Fund 2007 onwards fund performance



NZVIF VC FUND COMPANIES BY SECTOR

As at 30 June 2016, the VC Fund's 76 companies had achieved an overall return multiple of $1.80 and IRR of 8.87 percent[4]. Of the $1.80, $0.25 is cash returned with the remaining unrealised portfolio amounting to $1.55.

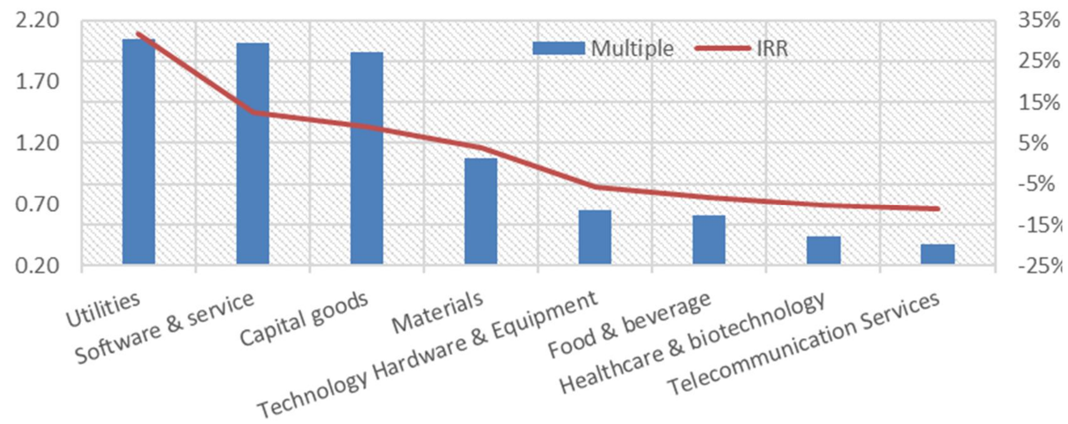
Breaking down the portfolio into sectors, the top performing sectors are utilities, software & services and capital goods, which first two sectors both achieved double digital IRR. Utilities – which involved one company in the clean energy sector - returned $2 for every dollar invested with a full exit.

Table 7: VC Fund performance by sector

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
Utilities	31.67%	2.05X	$2.05	$0
Software & Service	12.47%	2.02X	$0.44	$1.58
Capital goods	8.90%	1.94X	$0.13	$1.81

The Software & Service sector is, to date, the second best performing by IRR (12.47 percent) and is achieving the multiple (2.02 times). However, mostly unrealised value dominated by listed assets. Examples of Software & Service companies in which the VC Fund is an investor include Xero, Orion Health and SLI Systems.

Chart 4: VC fund performance by sector



[4] *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

SCIF has entered into 19 angel investment partnerships across 15 angel networks and made equity investments into 150 companies.

Among these 150 companies, 27 percent are sourced from universities and Crown Research Institutes, and another 25 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 risk capital to enable validation of a commercial opportunity – and are recognised as being very high risk.

SCIF invests alongside its angel investment partners on the same commercial terms. Among the SCIF investee companies, the average size of total capital raised by each start-up company is $1.9 million, with 68 percent of these deals being syndicated between multiple angel groups, among which on average $300,240 is funded by SCIF and the rest comes from angel investors (both SCIF partners and other private investors).

Table 8: Seed Co-investment Fund investment activity as at 30 June 2016

Number of Angel Partnerships entered into	15
Number of active Angel Partnerships (invested in past year)	11
SCIF Investment in Companies	$45m
Total Amount Invested (SCIF + all private)	$294m
Proportion of syndicated deals	68%
Number of Companies Funded	150
Average size of total capital raised per company	$1.9m
Average SCIF Investment per Company	$300,240

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.

INVESTMENT PERFORMANCE

As at 30 June 2016, SCIF had invested $45 million. The total value of the SCIF portfolio (including cash returned) was $52 million.

The valuation of the SCIF portfolio, like the VC Fund, is approached conservatively (see appendix). As at 30 June 2016, 17 of the 150 companies – 11 percent - in the portfolio had their holding values written down to zero. 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. 18 companies or 12 parentages have formally been liquidated or entirely ceased to operate.

The top 15 unrealised companies in SCIF's portfolio (10%) account for 52 percent of the total unrealised portfolio value. Among those 15 companies, 34 percent by value are software & service companies and 25 percent are healthcare and biotechnology companies. Currently, these are the top two performing sectors in the SCIF portfolio.

Table 9: SCIF portfolio performance as at 30 June 2016

	SCIF
Total no. of investments	150
Amount invested	$45m
Holding value of investments in portfolio companies	$52m
Amount received from exits	$4.8m
Total portfolio value (including cash)	$56.8m
Investment multiple	1.26
Portfolio IRR since inception	6.72%
Median age of investment	42 months
No. of exits	31 (21% of portfolio)
No. of write-offs	17 (11% of portfolio)

Overall, the SCIF funds achieved IRR of 6.72% as at June 2016 – a significant rise on the 1.04% IRR recorded last year. This improvement in IRR is largely due to the significant valuation uplift of several high growth SCIF companies. It is 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.

The investment return showed much more divergence among different angel partners compared with last year, with the highest IRR of over 200 percent and multiple of 4.36 times. There are 9 angel funds or networks generating positive IRR and multiples above 1 times.

Of the $1.26 investment multiple, $0.11 is cash returned with the remaining unrealised portfolio amounting to $1.15 given the median investment holding period is only 42 months.

SCIF FUND PERFORMANCE BY SECTOR

Software companies are becoming increasingly popular for investment. Other popular sectors are pharmaceuticals/life sciences, and technology hardware. The portfolio's diversification – it is one of the largest and most diversified angel portfolios - significantly increases the probability of it generating positive investment returns over time.

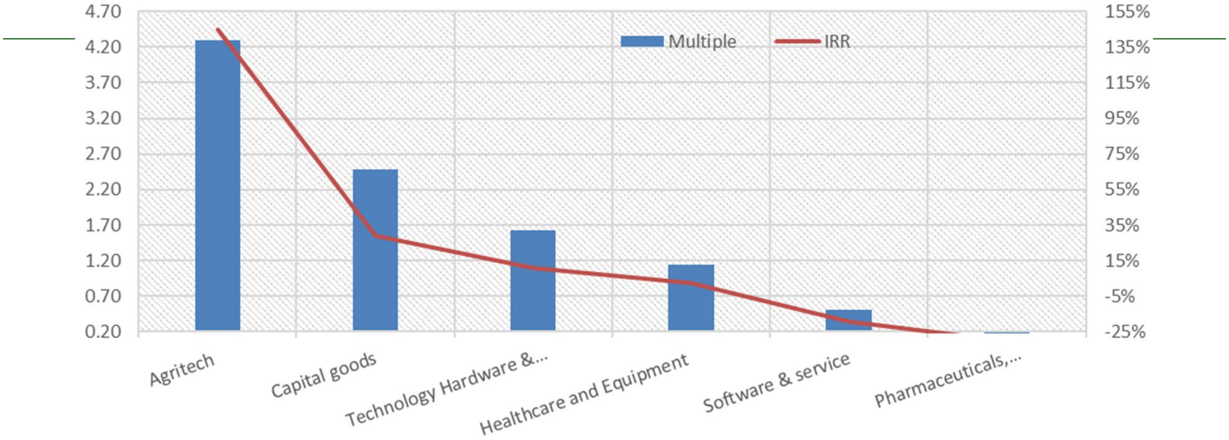
Breaking down the portfolio into sectors, the top performing sectors are agritech, capital goods and technology hardware & equipment, among which agritech achieved triple digit IRR. A number of companies are achieving significant business growth and are now attracting great interest from both local and international investors.

Table 10: SCIF Fund performance by sector

	IRR (%)	Multiple (x)	Returned Capital	Unrealised Value
Agritech	144.97%	4.29X	$0	$4.29
Capital goods	29.12%	2.49X	$0.68	$1.81
Technology hardware & equipment	10.89%	1.63X	$0.16	$1.47

The Capital goods sector has the highest returned capital and is one of top performing sectors in both SCIF and VC portfolio.

Chart 4: Sector performance - SCIF



CONCLUSION

The overall investment performance to 30 June 2016 highlights both the volatility of early stage investing and the reliance on a few 'outlier' investments to generate the bulk of the returns.

NZVIF's overall portfolio result is based on a very conservative valuation assessment. The marked improvement in the performance of SCIF was largely offset by the lower result of the VC fund (SCIF is a third the size of the VC fund). The VC Fund's result was due mainly to the volatility of listed portfolio companies, which now comprise about 20 percent of the value of NZVIF's portfolio.

New Zealand's venture capital and angel investment sector is still at relatively early stages of development. Perhaps the most glaring absence from our market is a VC fund of real scale - $300 million to $400 million – with significant backing from local institutions. Funds of this size have the capacity to invest in and develop growth companies with the ambition of becoming large companies while remaining in New Zealand. Addressing this should be a priority.

The $1.9b of private investment into NZVIF's portfolio companies since its establishment reflects New Zealand's relatively low level of domestic VC investment by international standards. The Global Innovation Index ranks New Zealand 21st compared to other economies in terms of venture capital investment, behind Latvia, Lithuania, and Lebanon.[5] This is a significant issue for NZ Inc when we consider the Government's aspiration to develop our technology sector as a key plank in a 21st century economy beyond agriculture and tourism.

The fact that 63% of private investment is from offshore reflects both the lack of available domestic capital, as well as the internationally focused nature of NZ growth companies. The small size of the local market means that our growth companies need to develop offshore markets (unlike, say, a California start-up who have a large domestic market opportunity available to them). Offshore investors can also help develop access to markets and networks as well as providing growth capital.

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. SCIF-backed companies have averaged 53 percent annual revenue growth and VC Fund-backed companies have achieved an average 37 percent annual revenue growth.

We are aware of quite a few companies in both SCIF fund and VC fund are in advanced discussions (some are under due diligence) for either going public via an IPO or trade sale. We look forward to providing some positive news in the next year's report.

[5] *See Global Innovation Index, Cornell University, Table 4.2.4 - https://www.globalinnovationindex.org/analysis-indicator*

APPENDIX

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 but are not 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 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.

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