

# TREASURY WORKING PAPER

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## New Zealand's Venture Capital Market

Prepared by Infometrics Ltd

### **ABSTRACT**

New Zealand's venture capital market is evolving rapidly as capital markets and associated professional service firms respond to the demand for private equity from businesses looking for capital and expertise to expand. The focus of this paper is on how the venture capital market in New Zealand is developing - the size, number and type of participants, the process of attracting and then selecting investments, expected returns, exit strategies possible gaps, and potential policy changes to assist the development of market. The paper is based on interviews with twenty market participants ranging from conventional venture capital firms to corporates with internal venture operations and professional service firms involved in the grooming of potential business opportunities. The market is still relatively immature and although there are currently gaps in the market they are by no means overwhelming. Furthermore, there is evidence that the market is segmenting and expanding to fill most of the obvious gaps, which tend to centre around information asymmetries.

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# New Zealand's Venture Capital Market

A study commissioned by the  
New Zealand Treasury

Prepared by  
Infometrics Ltd

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# Contents

|   |           |
|---|-----------|
| <b>Executive Summary</b>                                | <b>1</b>  |
| <b>1. Background to this Study</b>                      | <b>4</b>  |
| 1.1 The perceived problem                               | 4         |
| 1.2 Objectives of this study                            | 4         |
| 1.3 What is venture capital?                            | 5         |
| 1.4 The approach  | 5         |
| 1.5 Outline of report                                   | 6         |
| <b>2. Structure of Business in New Zealand</b>          | <b>7</b>  |
| 2.1 Demand for capital                                  | 9         |
| <b>3. The Venture Capital Market</b>                    | <b>11</b> |
| 3.1 Stage of maturity                                   | 11        |
| 3.2 Size of the market                                  | 13        |
| 3.3 Market participants                                 | 14        |
| 3.4 Supply, demand and deal flows                       | 17        |
| 3.5 Returns   | 21        |
| 3.6 Exit and capital gains                              | 22        |
| 3.7 Gaps  | 23        |
| 3.8 Stock of deals versus the flow                      | 25        |
| <b>4. How well is the market working?</b>               | <b>27</b> |
| 4.1 Venture capitalism                                  | 27        |
| 4.2 Market failure, or simply high cost of information? | 29        |
| <b>5. Policy Issues</b>                                 | <b>31</b> |
| 5.1 Information   | 31        |
| 5.2 Capital gains tax                                   | 32        |
| 5.3 Seed/early stage investment, and R&D                | 32        |
| 5.4 Proximity to technology/business frontier           | 33        |
| 5.5 Other models  | 34        |
| <b>Appendix I</b>                                       | <b>36</b> |
| <b>Appendix II</b>                                      | <b>38</b> |
| <b>Appendix III</b>                                     | <b>42</b> |
| <b>Appendix IV</b>                                      | <b>48</b> |

# Executive Summary

1. There is a widespread perception that a lack of venture capital for small businesses constrains their growth, with adverse consequences for the wider economy.
2. New Zealand's business sector is dominated by small businesses with 96% of all enterprises employing fewer than 20 people. There also appears to be a high business birth rate with start-ups in 1999 equivalent to 22.7% of all small private non-agricultural enterprises.
3. Although the high rate of business start-ups points to a potentially strong demand for venture capital, our assessment is that probably fewer than 5% of all small and medium sized firms seek such capital. The majority of small businesses (eg, dairies) do not seek venture capital because they neither require high risk equity, nor offer a sufficient return to equity investors. Generally the strongest demand comes from new (and almost by definition, small) companies looking to develop new products and markets (both involving high levels of risk), for which they require capital as well as good strategic thinking and contacts. Critically, such businesses provide a return that is commensurate to the risk involved in developing them.
4. A growing number of firms are actively helping small businesses and entrepreneurs secure venture capital. The key components of the market are:
  - The entrepreneurs with business propositions looking for capital,
  - Business advisors, ranging from individual practitioners to large professional firms and stockbrokers, who work with entrepreneurs to secure capital.
  - Venture capitalists, including wealthy individuals through to large institutional or corporate funds, specifically oriented to investing in business ventures.
  - Exit options whether an IPO, or trade sale.
5. The supply of capital has increased significantly over the past three years with the entry of new listed venture capitalists, large institutions, banks and corporate venture capital funds. The establishment of the Stock Exchange's New Capital Market has also increased potential funds available.
6. There is no convincing shortage of high quality business propositions to invest in. Most venture capital firms acknowledge (perhaps not surprisingly) a high level of good quality inquiry. In many cases venture capitalists proactively pursue potential deals. There is some concern that inexperienced venture capital firms may be chasing quantity rather than quality, in terms of deals. This would not be unusual during a period of rapid expansion in a capital market.
7. Less than 5% of initial inquiries at most venture capital firms eventually receive capital. Most firms have well-defined appraisal processes. The most common reasons for rejecting deals is that they are at the wrong stage of

business development (normally too early), the product or idea is unlikely to succeed in the proposed market, they lack a credible business plan, or cannot agree on the proposed equity arrangements. Personalities, as well as skills, play a dominant role in determining deals – trust is a vital ingredient.

8. Venture capital firms are generally aiming for, and achieving, returns of between 25% and 40%pa from their portfolio. Venture capitalists do not expect to make these returns on each investment, but use it as a hurdle rate for propositions. In reality, returns on individual investments range from a total loss through to many times the original sum invested. The immaturity of the market makes it difficult to obtain robust investment performance data.
9. Exit strategies are a central part of virtually all venture capital investments. Having a detailed and effective exit plan is regarded by most as fundamental to realising the returns on the time and capital that are invested in business ventures. But where there is a clear intent to sell, venture capitalists are liable to pay tax on their capital returns. It would encourage venture capital investing if the government removed the ambiguity surrounding the treatment of capital returns by making it explicit that venture capital investments are not subject to capital gains tax despite clear exit intentions.
10. There is no clear evidence that there is either a lack of venture capital available for businesses, nor a shortage of good quality business propositions to invest in. Gaps are most likely to exist around the business start-up point, where information is difficult and expensive to find and there is a high level of uncertainty about quality/ performance of the product as well as market prospects. If these gaps do exist, they do not necessarily constitute a market failure. Rather they indicate the difficulty in transacting in a market where information is costly.
11. There is some evidence of entrepreneurs lacking the time, money and skills to put together an effective business proposal. Some venture capitalists argue that if entrepreneurs cannot figure out how to negotiate this first hurdle of business, they may not have the mettle to manage the many other challenges they will face in building their business.
12. The quality of decision making and advisory services within the venture capital market is critical to its medium term performance. Private sector advisors and investors have strong incentives as well as the requisite experience to provide high quality advice and make wise investment decisions. Any involvement by the government in this market should ideally be via existing players rather than standalone public agencies.
13. As for venture capital firms an exit strategy should be a priority for any government programme to assist business development via the venture capital market. The market is maturing steadily – gaps are being closed and the market is segmenting to cater for specific demands. Although this process is slow, the increased number and range of businesses active in the venture capital market over the past five years confirms that progress is being made. It tends to be more difficult for governments to withdraw from programmes than to start them. The more permanent a programme is perceived to be, the more likely it is to distort business behaviour.

14. If profitable projects are being foregone in the venture capital market it most probably relates to information. Differences in the quality and depth of information held by the two parties in most venture capital deals can vary significantly. The time and cost of achieving information symmetry and therefore achieving a mutually acceptable agreement can be prohibitive and therefore no deal is consummated. It is difficult to conclude confidently that such impasses constitute a market failure.
15. The logical point for the government to intervene would be to reduce transaction costs for participants. In the first instance, this is probably best achieved via direct assistance to those already involved in grooming and mentoring prospective businesses. The quality of this work is critical and therefore is best left in the hands of those with a clear incentive to complete the task accurately, promptly and skilfully – generally private sector businesses and individuals.
16. A key issue for any intervention is to avoid distorting the incentives and disciplines that are already becoming established within the venture capital market, and to avoid displacing current and potential players. This is especially important in a market that historically has been quite fragile.
17. New Zealand's venture capital market is maturing. Not fast enough for some and not soundly enough for others. The fundamental issue for this market is to build confidence amongst investors and entrepreneurs that the market will continue to develop effectively. The emergence of well-managed and successful private sector venture capital businesses is an important element in this process. Any government intervention in this market needs to be sensitive to generating distortions that could undermine confidence in the vigour and sustainability of venture capital firms.

# 1. Background to this Study

## 1.1 The perceived problem

Small and medium sized businesses in New Zealand often complain that they find it difficult to secure the capital they require, on suitable terms, to underpin their development and expansion. The presence of such capital constraints would represent a serious handicap to the performance of the New Zealand economy. After an initial establishment period, some of the most rapid growth in firms occurs at the early stages of their development.

From the point of view of many budding businesses, the problem centres on the reluctance of banks and venture capital firms to back business ideas, start ups and expansions. In contrast, investors perceive the problem as being a weak supply of genuinely good business propositions to back.

What is clear, is that there is only a weak consensus on what the real problem is:

- Is the market failing to behave rationally?
- Do firms have unrealistic expectations of their value to potential investors?
- Are there significant information gaps that blunt the effective functioning of the market for business finance?

These are important issues to consider before deciding how to address what might be a major impediment to business development and the performance of the wider economy.

The government may be able to play a useful role in resolving some shortcomings in the business financing market and it has commissioned this study to help improve its understanding of the venture capital market.

## 1.2 Objectives of this study

In this study we focus on areas including:

1. The main characteristics of New Zealand's business sector relevant to the venture capital market.
2. The size and scope of the venture capital market.
3. Possible gaps, in terms of scale and scope, in New Zealand's venture capital market.
4. The nature of the deal flow.
5. Evidence of normal capital rationing and/or market failure.
6. Initiatives the government could take to improve desired outcomes.

The Ministry of Commerce (now Ministry of Economic Development) has undertaken an annual survey of the venture capital market in New Zealand. Their “Sources of capital available to small and medium size firms” reports provide a list of known venture capital firms and details of the firms' capital and investment strategy. They have also carried out a study looking at access to capital for small and medium size firms (SMEs)<sup>1</sup>. These reports are useful background to a more detailed look at New Zealand’s venture capital market.

The central aim of this study is to expand our understanding of the venture capital sector particularly its size, scope, processes, gaps, etc, as a valuable input to policy deliberations.

### **1.3 What is venture capital?**

Venture capital is a subset of the broad capital market, which encompasses all sources of finance that are required to conduct business. Arguably all equity capital is a form of venture capital in the sense that it is risk capital, though clearly the amount of risk varies considerably throughout the equity market.

What generally sets venture capital apart from equity capital as a whole?

- It tends to be relatively illiquid and hence the term patient capital.
- It is more active, or hands-on, capital than equity generally – venture capitalists take more than a passing interest in the business and are expected to offer more than simply money.
- It is accompanied by a clear exit strategy, reflecting the relative illiquidity of the capital investments undertaken.
- It is an investment in real and intangible assets – a business – rather than a financial asset or instrument such as a readily tradable share.

As companies grow and mature they are more likely to access public equity markets and conventional debt markets, highlighting the fact that venture capital is simply the high risk, high return component of the capital market with a few specific characteristics.

### **1.4 The approach**

The approach we have taken to meet the objectives of this study is to conduct both desk-based research and a series of interviews with participants in the venture capital market. We have carried out 13 in-depth face-to-face interviews and seven telephone interviews. Generally interviews have been conducted using one of two guides that are attached as Appendix II to this report. However, in practice the people/ organisations were often quite different and therefore adhering strictly to a set of questions would have defeated one of the main purposes of the study – to gain a better idea of the scope of the venture capital market.

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<sup>1</sup> Finance Scoping Report, Jason Leung-Wai, Ministry of Commerce, December 1999.

The material from the interviews has been used to shape the comments that make up the bulk of this report. Where there are specific points from interviews that highlight, confirm or contradict our observations we have noted them in the form of indented text and using a slightly smaller font. These pieces of text are not the precise words used by interviewees and we have tried to ensure anonymity. Most are based on comments from just one or two people and cannot be regarded as representative. Nonetheless, they are made by some of the most senior and experienced executives within the venture capital market and in our view provide valuable insights. In some cases we have used comments that show the spread of opinion in the market about where potential constraints really lie.

## **1.5 Outline of report**

The core sections of this report are:

- An analysis of the business sector in New Zealand highlighting the particular characteristics that have ramifications for capital markets and particularly the venture capital market – Chapter 2.
- An outline of the venture capital market – its structure, the participants, and size – Chapter 3
- A discussion of what constitutes market failure and the evidence and characteristics of such failure within New Zealand’s venture capital market – Chapter 4.
- A review of the policy issues that arise from this study and some comments on what initiatives might be considered to further enhance the effectiveness of this important part of the capital market – Chapter 5.

## 2. Structure of Business in New Zealand

New Zealand is a small economy where business is conducted on a small scale – 96% of enterprises employ 19 or fewer full time staff – small and medium enterprises (SMEs). 84% of enterprises employ five or fewer people – small enterprises.

SMEs dominate the New Zealand business sector to a degree not found in most other countries. In Australia 82% of enterprises employ 19 or fewer people (1994 data), compared to 96% in New Zealand in 1999 (91% in 1994); see details in Figure 2.1 below.

Figure 2.1 – Size Distribution of Manufacturing Industry<sup>2</sup>

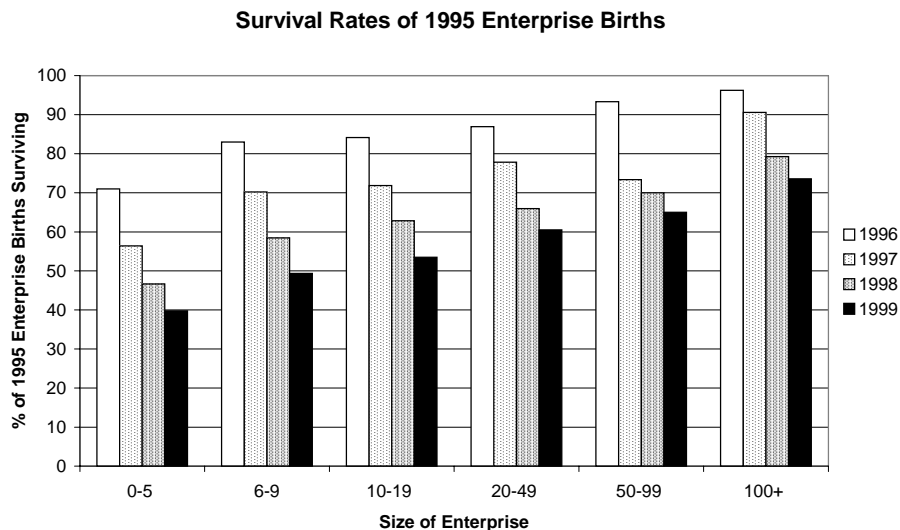
| Country        | Year           | Percentage of Enterprises / Establishments |             |            |            | Percentage of Employment |             |             |             |
|----------------|----------------|--|-------------|------------|------------|--------------------------|-------------|-------------|-------------|
|                |                | Enterprise Size (FTEs)                     |             |            |            | Enterprise Size (FTEs)   |             |             |             |
|                |                | 1-19                                       | 20-99       | 100-499    | 500+       | 1-19                     | 20-99       | 100-499     | 500+        |
| Australia      | 1994           | 82.0                                       | 14.1        | 3.4        | 0.4        | 22.3                     | 27.5        | 32.7        | 17.5        |
| Austria        | 1993           | 43.2                                       | 41.5        | 10.0       | 5.2        | 4.3                      | 26.9        | 23.4        | 45.5        |
| Canada         | 1994           | 50.6                                       | 37.8        | 10.2       | 1.4        | 7.6                      | 27.8        | 39.4        | 25.2        |
| Czech Republic | 1995           | 94.9                                       | 2.9         | 1.6        | 0.5        | 18.0                     | 10.3        | 24.6        | 47.1        |
| Germany        | 1993           | 71.5                                       | 19.4        | 4.1        | 5.0        | 19.9                     | 22.1        | 10.8        | 47.2        |
| Greece         | 1992           | 59.0                                       | 34.3        | 6.0        | 0.7        | 20.4                     | 35.0        | 27.5        | 17.2        |
| Italy          | 1992           | 89.7                                       | 9.0         | 1.2        | 0.2        | 38.7                     | 25.0        | 17.3        | 19.0        |
| Japan          | 1994           | 74.3                                       | 21.6        | 3.6        | 0.5        | 22.4                     | 30.9        | 25.0        | 21.6        |
| Korea          | 1994           | 69.5                                       | 26.1        | 3.0        | 1.3        | 20.5                     | 32.0        | 14.2        | 33.3        |
| Luxembourg     | 1992           | 79.4                                       | 15.0        | 4.7        | 0.9        | 13.0                     | 22.1        | 35.0        | 29.9        |
| Mexico         | 1994           | 80.3                                       | 15.1        | 2.7        | 2.0        | 12.2                     | 21.2        | 15.6        | 51.0        |
| Netherlands    | 1993           | 78.0                                       | 17.2        | 4.3        | 0.6        | 15.7                     | 24.8        | 27.8        | 31.7        |
| New Zealand    | 1994           | 90.6                                       | 7.7         | 1.5        | 0.3        | 27.3                     | 24.7        | 24.0        | 24.0        |
| Norway         | 1994           | 40.2                                       | 47.4        | 7.5        | 4.9        | 9.3                      | 34.9        | 18.2        | 37.6        |
| Portugal       | 1994           | 85.8                                       | 11.8        | 2.2        | 0.2        | 23.5                     | 32.3        | 27.8        | 16.5        |
| Sweden         | 1993           | 44.4                                       | 40.8        | 12.4       | 2.4        | 6.9                      | 23.1        | 35.3        | 34.7        |
| Switzerland    | 1991           | 84.2                                       | 12.3        | 3.1        | 0.4        | 20.2                     | 26.9        | 31.3        | 21.5        |
| Turkey         | 1992           | 36.6                                       | 47.1        | 13.3       | 3.0        | 5.5                      | 22.2        | 32.2        | 40.1        |
| United Kingdom | 1994           | 82.7                                       | 12.9        | 3.7        | 0.8        | 13.2                     | 21.6        | 28.9        | 36.3        |
| United States  | 1993           | 73.7                                       | 19.8        | 5.1        | 1.4        | 7.4                      | 14.6        | 16.5        | 61.5        |
|                | <b>Average</b> | <b>70.5</b>                                | <b>22.7</b> | <b>5.2</b> | <b>1.6</b> | <b>16.4</b>              | <b>25.3</b> | <b>25.4</b> | <b>32.9</b> |

NOTE: Statistical unit – establishment except for the United States, New Zealand, Czech Republic, Italy, Luxembourg, Portugal (enterprises). Size classes differ: Canada, New Zealand: 0-19; Mexico: 1-15, 16-100; Norway: 1-19, 20-99, 100-199, 200+; Czech Republic: 0-24; 25-99.

<sup>2</sup> Ministry of Commerce, SMEs in New Zealand: Structure and Dynamics, Jan 2000, Table 11, p27.

Not surprisingly most business births and deaths occur amongst small firms. In 1999 93% of all start-ups and failures were for enterprises employing five or fewer people<sup>3</sup>. Survival rates vary depending on the initial size of the enterprise – the smaller the business the lower the survival rate, with just 40% of small enterprises still operating under the same owners five years after starting, see Figure 2.2. As the authors of the report from which the graph is taken point out, the survival statistics are perhaps overly stringent in that enterprises are deemed to have failed if they shift location or change ownership.

Figure 2.2<sup>4</sup>



In 1999 business start-ups, or births, accounted for just under a quarter of all non-agriculture SMEs in New Zealand. Although we have not been able to locate comparative figures for other countries we regard this rate of startups as being very high. At least two important issues flow from the relatively high number of start-ups and the small scale of our enterprises:

- There would appear to be a strong demand for seed and startup finance. As we point out below that does not necessarily mean budding entrepreneurs will seek that finance from the venture capital market. They may take on bank debt via their house, invest their own time for little or no remuneration – increasingly common in the new high tech areas where software development is not particularly capital-intensive.
- New Zealand's business culture seems to centre on establishing new businesses and developing them to a size consistent with that of the local market. Companies with international appeal will outgrow the typical New Zealand business, but, more often than not, these businesses are then sold to or taken over by, foreigners. In some cases the founding entrepreneurs begin the process again by becoming angel investors – high profile examples include Doug Myers, Neville Jordan, Dennis Chapman.

<sup>3</sup> Ibid, p 12.

<sup>4</sup> Ibid p14.

## 2.1 Demand for capital

Although SMEs are a dominant part of the New Zealand business sector, they are not necessarily capital hungry, particularly for equity capital, which is the focus of this study.

In a report reviewing Australia's Pooled Development Fund<sup>5</sup> (essentially a scheme to encourage venture capital investment) the authors point to analysis that suggests equity funding is not an issue for the vast majority of SMEs in Australia. The BIE<sup>6</sup> estimated external equity in a sample of small firms at about 4%. The Industries Commission<sup>7</sup> estimated that less than 2% of SMEs with 2 to 19 employees (including the operator) received equity from 'business angels', wealthy individuals not previously associated with a business who directly invest in small firms. The Yellow Pages Small Business Index<sup>8</sup> implied that fewer than 2% of small businesses are seeking equity finance.

The clear impression from the above research is that the proportion of SMEs actively seeking venture capital is probably very small. There are approximately 190,000 small non-agricultural sector businesses in New Zealand. Based on say 30 venture capital firms in New Zealand reviewing on average 200 *independent* requests for capital a year, the number of small enterprises searching for capital is probably somewhere between 5,000 and 10,000, or to be generous, between 3% and 6% of all SMEs.

Another approach is to take the ratio of actual investments to initial appraisals that many venture capital firms put at between 3 to 5% and then apply that to the number of deals actually consummated.

The Australian Venture Capital Journal/ PricewaterhouseCoopers survey of venture capital in Australia and New Zealand estimated 25 new deals were completed in New Zealand over 1999. Even if we were to be generous and argue that 100 venture capital deals were completed in a year, and the conversion rate from deals appraised to deals done was just 2%, it implies a total of 5000 firms actively looking for venture capital, or less than 3% of all non-agriculture SMEs.

The Great New Zealand Business Venture competition looks like receiving around 1400 initial inquiries with over 400 firms going on to prepare a five page business plan. This response is well ahead of what was expected based on experience in other countries. Nonetheless, in the context of the total SME population, 1400 initial inquiries is less than 1% of the total potential population.

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<sup>5</sup> Review of the Pooled Development Funds Programme, a report prepared by officers of the Department of Industry, Science and Resources, Treasury and the Australian Tax Office, 17 June 1998.

<sup>6</sup> Bureau of Industry Economics (1987), Innovative small firms in emerging industries, *Small Business Review 1987*, pp 16-52, AGPS, Canberra.

<sup>7</sup> Industry Commission (1997), *Informal Equity Investment*, Small business research program, AGPS, Canberra.

<sup>8</sup> Yellow Pages Australia (1995), *Small Business Index: A Special Report – Small Business Growth Aspirations and the Role of Exports*.

Most SMEs are not trying to grow and in many cases have little scope to grow – the corner dairy, the lunch bar, service station, etc. Small businesses that are looking to grow will tend to look at retained earnings or debt finance (either formal or informal) secured over their house. Venture capital is not a source of capital that readily springs to mind for the thousands of SMEs that are looking for security rather than adventure. Many are hostile to the idea of having to relinquish some ownership in exchange for capital, even though capital is not all that is being offered. From the perspective of the venture capitalist, these businesses do not provide sufficient scope for growth and therefore profit.

Although, the majority of firms seeking venture capital are small, it is not their size alone that distinguishes them. Their age and their risk are also important characteristics. Firms looking for venture capital are generally young businesses looking to grow and they require both capital and contacts to help develop new products and open up new markets.

The risks for venture capitalists investing in small and young business are generally higher than investing in well-established medium sized businesses. Young companies do not have a track record to judge them by. Small companies struggle to deliver the talent and experience to reassure potential investors they can grow successfully. Hence the focus of many venture capitalists is on well-established medium sized businesses looking to expand. However, overseas experience has shown that as profit opportunities are traded away in this segment, venture capitalists tend to have acquired the experience networks to allow them to push down into earlier stage business investments.

## 3. The Venture Capital Market

There are a number of aspects of the venture capital market that help build a clearer picture of its scale and scope, how it operates, the characteristics of supply and demand, the nature of the flow of deals and where there are potential gaps in the market. In the following sections we discuss these issues, but firstly we set out a brief description of the venture capital market by stage of business development.

### 3.1 Stage of maturity

#### *Seed capital*

Few established venture capital firms get involved in providing seed capital – finance to undertake product research, development of an initial concept and some assessment of market prospects, or the business case.

Typically incubators, local authority matching services, specialist seed capital funds, angel investors<sup>9</sup>, universities and professional business service providers such as accountants and lawyers provide input at this very early stage of business development. Individual entrepreneurs and their friends and family will often be important sources of capital at this start up stage.

Probably the best example of a genuine seed capital fund in New Zealand is UniServices – closely linked to Auckland University.

#### *Start-up capital*

To transform ideas into businesses normally requires capital beyond the means or appetite of core entrepreneurs, who may have funded the business to this point. They will seek additional capital from angel investors and small venture capital firms and assistance from the major public accounting firms. The equity, in the form of capital or uncharged services, will help to get new ventures operating as fledgling businesses, with products, a market and a revenue stream. This stage lays the foundation in the form of information and credibility to attract further capital for growth from traditional venture capital companies at a later stage.

#### *Development, expansion or exit capital*

Many small but well-established business may seek venture capital not just to finance growth, but to provide the networks, markets, strategic vision, etc crucial to effective growth. Traditional venture capital companies offer the sort of active capital that supports the growth of small companies. Funds may be used to finance increased production capacity, market or product development and/or provide additional working capital. Capital provided for turnaround situations is also included in this category, as is the refinancing of bank debt.

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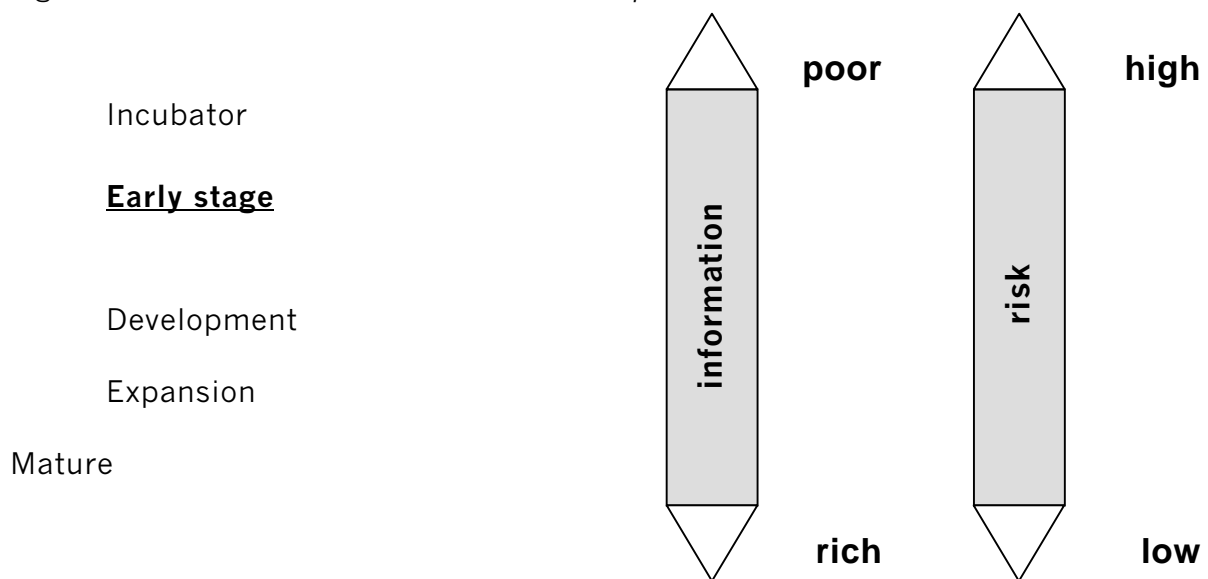
<sup>9</sup> We use the term angel investors in this report to include high net worth individuals. Strictly speaking there is a difference – angel investors can be thought of as active equity investors, whereas high net worth individuals are often passive investors.

In some cases business owners are looking for investors who will enable them to realise at least some of the equity they have built up in their company, and ultimately to arrange a suitable exit for them, via a public listing or trade sales.

***Management buy-outs and buy-ins***

Normally this involves the provision of capital to a team of managers within a relatively mature company to buy out existing owners, or to finance a new management team to take-over an existing owner-operated business. There are specialist MBO firms operating in the New Zealand market that have attracted venture capital from major institutions.

*Figure 3.1 – Characteristics of the venture capital market*



*Characteristics of the market*

The following generalisations highlight some of the issues that small businesses and venture capitalists encounter when interacting with capital markets.

- Potential candidates for venture capital are not generally familiar with what is available from capital markets and what is required to obtain finance.
- Venture capital firms often struggle to cost effectively assess projects. They use specialisation and networks as a course filter for potential projects. Potential investors find it difficult to justify the time and effort involved in pursuing start up opportunities given the small sums involved.
- Some entrepreneurs tend to shun equity finance, which they see as a threat to their ownership. They prefer to mortgage their homes than to share their prospective wealth.
- Most formal investment funds have investment criteria that are generally only loosely adhered to – avoiding investing in property and early stage development appear to be the two criteria most strictly complied with.
- Illiquidity is a serious issue for potential investors, therefore venture capitalists place huge importance on having an effective exit strategy in place before investing.

*US trends*

An increasing share of total venture capital invested in the US is going to early stage business development. Over the December 1999 and March 2000 quarters just under half of all new venture capital invested went to early stage development companies. On average, formative stage companies received just over \$10million – nearly double the average amount invested in these sort of companies a year earlier. These sums are large by New Zealand standards and highlight the generally larger scale of businesses (even at an early stage), and market opportunities compared to here.

### 3.2 Size of the market

It is clear that the number of players in the venture capital market has increased significantly over the past three years. The amount of capital available for investing has also increased substantially as institutions and major companies have become more active in the venture capital market.

Estimates of just how big the venture capital market is in New Zealand are rough, but one private sector estimate is that it is worth in the order of \$2billion, half of which is invested and the other half still available for investing.

That figure is relatively small by comparison to the total value of shareholders/equity in all New Zealand businesses of \$171billion in 1997/98<sup>10</sup>. Even excluding the value of listed equity at around \$50billion, venture capital still only represents less than 2% of all unlisted equity investment.

By comparison with bank (M3 institutions) lending to businesses of just over \$40 billion, the venture capital funds of \$2 billion looks more impressive. Another perspective is to compare bank lending to businesses over 1999 – \$7.3 billion – with an estimate of the value of venture capital deals completed last year – \$135.76 million.<sup>11</sup>

The following table provides some international perspective on the relative significance of venture capital investment within the context of total capital expenditure.

***Value of new venture capital deals as % total private capital investment spending***

|      | US   | Australia | New Zealand |
|------|------|-----------|-------------|
| 1988 | 0.8% |           |             |
| 1999 | 2.4% | 0.8%      | 0.8%        |

<sup>10</sup> Business Activity Statistics, 1999, Statistics New Zealand, Table 4.01.

<sup>11</sup> Australian Venture Capital Journal, March 2000, p6.

### 3.3 Market participants

In this section we outline the range of players in the venture capital market and their objectives – not all participants are focused on the provision of venture capital.

There are three basic players – the entrepreneur with a business proposition, the investor(s), or venture capitalists, and a range of people and organisations crucial in bringing these two parties together efficiently and successfully.

#### *The entrepreneur*

The entrepreneur is both the originator of the idea and the first investor. They are prepared to work on the idea often for no monetary reward. In many cases they will fund development from their own capital resources, including mortgaging their house. In this sense they are the first investors. Over the year ended March 1999, over 43,000 new enterprises were started – equivalent to 22.7% of all small private sector non-agricultural enterprises.

An important issue raised during interviews with participants in the venture capital market was whether the social and economic climate in New Zealand was sufficiently conducive to stimulating entrepreneurial activity, and therefore the supply of budding businesses. Some argue strongly that business risk-taking by individual New Zealanders has been stifled by a culture that condemns failures and despises success. People may form businesses but they are relatively unadventurous – in most cases seeking an income and a lifestyle, rather than steady growth.

There are a host of innovative and clever people who have established their own business, be it a small engineering workshop, or a restaurant, but they are really hobby businesses, rather than wealth creating enterprise. It is the latter type of business we lack, according to some.

The counter view put forward is that the flow of good prospective businesses is not a problem. The high level of initial inquiry for the Great New Zealand Business Venture was cited as evidence of a thriving business culture. According to one significant venture capital investor, the supply of good ideas and good people to back them is not a constraint in New Zealand.

#### *Supporters*

The next group of “investors” in the venture capital process might loosely be referred to as supporters. These are people and organisations that help entrepreneurs to translate their ideas into viable businesses. Assistance ranges from:

- Casual advice from a mentor, friends, business associates, specialist suppliers, etc.
- Facilities to undertake development work – business incubators that provide space and in some cases equipment.

- Basic business advice from local accountants, lawyers and banks, and services such as Bizinfo and local authority economic development agencies.

It was made clear by several firms interviewed that the quality of the advisory services was crucial to the success of any deal. Publicly funded services were regarded as definitely inferior in terms of quality compared to private sector services that more readily drew on deep business experience and extensive personal and business networks.

- Equity capital and professional business participation from angel investors or seed capital funds are also part of the support stage.

There is at least one specialist seed capital fund operating in New Zealand and at least one corporate actively providing seed and start-up capital for business ventures.

- Business strategy and advisory services from major public accounting firms. In some cases these firms are looking at providing services at little or no charge in exchange for equity.

The concept of providing services for free in exchange for equity is alive within New Zealand's venture capital market and is an important rationale for being involved in this market. The major professional accounting firms are looking at ways of achieving a trade-off between their fees for services provided and a stake in the client's business. The practice is common in other countries<sup>12</sup> where these firms operate, but the extent of this type of business in New Zealand makes it difficult for the major professional firms to justify setting up a neatly self contained unit. Running such a scheme as part of the general business advisory services raises major cost allocation and risk issues.

Another important rationale for being involved in supporting business startups is that at least some of these companies become valuable fee paying clients as they grow.

### ***Quality of support***

Several interviewees noted that the quality of the support and mentoring services was crucial in determining whether business ideas were successfully translated into successful businesses. The Bizinfo services were not regarded as being sufficiently sophisticated to launch significant new businesses.

The issue of quality relates to the level of experience, and particularly the contacts and networks, that mentors and advisors could bring to emerging business. The efficiency, in terms of time and resources, with which prospective businesses can identify the appropriate route for their development, can make the difference between success and failure. Two interviewees emphasised that the performance of this part of the venture capital market is crucial. Who you know rather than what you know is clearly a very important element of success in developing businesses.

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<sup>12</sup> Cash? How old economy, The Economist, May 6 2000, p77.

Venture/enterprise competitions – the Great New Zealand Business Venture<sup>13</sup> competition has been successful at demonstrating there is interest from budding entrepreneurs and support from business mentors, professional service firms and angel investors in active equity investment. It has raised the profile of the venture capital market and has also demonstrated the latent pool of both business ideas and the willingness of experienced business people to contribute effectively (and generously) to business development. See Appendix IV for details.

### *Funders*

For the venture capital market to function, there must be people with capital who are prepared to take risks. Venture capitalists do not simply provide equity capital – they play an important role in enhancing business opportunities via their networks, associations and strategic thinking. The importance of networks and contacts is particularly important in the New Zealand venture capital market given the small size of the economy and limited market potential locally. Access to international contacts is a crucial aspect of the more successful venture capital firms in New Zealand.

There is a wide range of venture capital providers, including:

- Angel investors
- Networks of private investors often managed by professional firms and stockbrokers
- Seed capital funds
- Conventional venture capital funds, set up with the specific purpose of active equity investing. The list of businesses involved in venture capital has expanded steadily over the past five years. In 1998 the Ministry of Economic Development<sup>14</sup> identified 11 providers of development capital. Two years later that number has increased to nearly 40.
- Corporates with venture capital units:
- Telecom's joint venture with Advent in a TMT (Technology, Media and Telecommunications) fund being managed independently and advised by Direct Capital Private Equity
  - Fletcher Challenge's Inventure
  - Carter Holt Harvey
  - Lion Nathan also have their own venture funds
  - Stockbroking firms and the New Capital Market (NCM)
  - Superannuation and funds management companies
  - Banks

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<sup>13</sup> A competition based on a model used by McKinsey & Co internationally. The competition, run for the first time in New Zealand this year, has been very successful by comparison with McKinsey's experience in other countries.

<sup>14</sup> Sources of Capital Available to Small and Medium Enterprises, Ministry of Economic Development, latest annual report June 2000.

- Overseas investors – at least two Australian venture capital firms
- The government, through its investment in the Greenstone Fund, established in 1993

From the process of finding relevant people/organisations to interview for this study it is clear that the number of potential sources of venture capital has grown strongly over the past three years. This probably reflects four key trends:

- Poor returns from many listed equity investments (see the ANZ's work on economic value added by New Zealand businesses<sup>15</sup> – savers are looking for better value from their investments).
- The need for good strategic thinking, better business networks and links into international markets has intensified as many small and medium sized businesses realise that to grow they will need to compete in the global market place, rather than just New Zealand.
- The technology/ information revolution has reduced or eliminated entry barriers to many large and valuable markets. Entrepreneurs with the appropriate technical skills can launch relatively low cost businesses. And in some cases their products open up enormous growth potential that must be funded – Swichtec in Christchurch is probably the best recent example of this phenomenon.
- The increase in the number of potential sources of venture capital may also reflect rising demand from the growing number of small/nursery businesses looking to expand. The fact that New Zealand is seen as a relatively untapped business nursery may also have attracted overseas funds into this market.
- Increased demand could also be due to good deals being arbitrated away offshore.

### 3.4 Supply, demand and deal flows

#### *Supply*

The supply of venture capital has undoubtedly increased over the past three to five years, not just because of an increase in the number of players in the market but also because of who these players are. The entry of corporates, banks and fund managers has substantially increased the amount of capital *potentially* available.

Some specialist venture capital companies have also established overseas relationships that have the potential to provide more capital. The steady development of a recognised and reliable infrastructure within the venture capital market has helped wealthy individuals to access potential investments and has attracted more money to this part of the capital market.

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<sup>15</sup> The EVA Forum, The Shareholder Value Performance of Corporate New Zealand, Joseph Healy, ANZ Investment Bank, 24 February 2000.

The launch of the stock exchange's New Capital Market early this year has further expanded the potential supply of equity capital to small businesses. Two companies have listed on the NCM since the stock exchange began accepting applications on 10 March 2000, and there was one new listing pending as at mid June 2000.

There was no suggestion from those we interviewed that the supply of capital was a problem for the New Zealand venture capital market. Even those seeking venture capital conceded that supply of capital was much less of an issue than it had been—there were more options available.

Some participants perceived that while the supply of money was not a problem, venture capital businesses acted more like bankers than risk capital investors. Another issue raised by at least one interviewee was the lack of urgency venture capitalist showed in dealing with fast moving technology businesses.

A general point raised by one participant, but also alluded to by several others, was the state of the economy, which for the past two years or so has favoured investors in terms of subduing business valuations. This is significant in determining medium term returns from investing and therefore the flow of capital to the market.

Besides capital, the availability of skilled people to manage the appraisal, decision making and strategic thinking processes is crucial to the effective functioning of venture capital businesses. Although the requisite skills are not readily available, several of those interviewed noted that it is possible to attract salaried executives with the appropriate skills and experience to the venture capital business. The attraction for these people seems to be the greater excitement offered in building businesses as opposed to simply managing them, and also the prospect of an equity stake in what they are doing.

The rapid growth in the number of venture capital firms over the past three years suggests a dearth of genuinely experienced people within venture capital businesses. Although firms may well be correct in arguing that skilled people can be attracted into this sector, it is difficult to believe these people have the requisite experience to meet the demands of venture capital investing. However, as more projects move through the investment cycle, more individuals will gain experience, contributing to the pool of potential venture capitalists.

### *Criteria*

Most companies had some criteria they used to guide their investment policy. Generally, though, the criteria concentrated on what was excluded rather than included. Many avoided investing in start-ups and early stage businesses. Virtually all excluded investing in property ventures. Otherwise the investment strategy appeared to be very flexible.

Some venture capital firms were tightly focused on technology, and in the case of corporate venture capitalists, there was a reasonably clear focus on strategic fit. An experienced angel investor had two clear tests he applied to any prospective investment and a third fundamental issue:

- Does the entrepreneur insist on retaining control – holding at least 50% of the business? Although that is not necessarily an issue for the investor at the initial stage it is a warning sign that the business's ability to expand will be limited by the entrepreneur.
- How entrepreneurs want to exit their business – if they haven't thought about this then they are in love with their idea rather than any concept of business.
- The person is crucial. The entrepreneur is investigated in considerable depth because this angel investor would rather do a less than ideal deal with the right person, than a great deal with the wrong person.

The steady segmentation of the supply of venture capital indicates that the market is maturing. It also highlights the fact that the market does respond over time to demand signals.

### *Demand*

The very high rate of business start-ups in New Zealand (43,000 last year) suggests that there is no shortage of potential investment prospects. But as we discussed in section 2.1 only a small proportion of all small businesses actually require equity capital, or are prepared to accept it.

From interviews with around 20 participants within the venture capital market the supply of deals is generally not seen as a problem in terms of quantity. Although some expressed concerns about the quality of deals available, the general consensus was that the supply of good deals backed by good people was not a problem. One investor stated that he had turned down some good propositions that didn't fall within his criteria.

One of the important sources of new entrepreneurs appears to be from within high growth companies. Where owner-executives in these companies can achieve a suitable exit they will often turn around and set up new businesses, or directly assist others to do so. This spawning, or seeding, process was particularly clear from at least two interviews with individuals who have exited successful and fast growing companies within the last three years. Interestingly, in both cases, exits, in the form of trade sales or public listings, were a crucial catalyst in spurring the seeding process. This emphasises the value of a dynamic equity and venture capital market.

### *Quantity versus quality*

The issue for the New Zealand venture capital market, particularly given its relative immaturity, is not the volume of deals available, but the quality of the deals that are closed.

Several of those people interviewed for this study pointed out that few participants in the market have deep experience of venture capital investing. Furthermore, many were in the early stages of completing investments and were yet to encounter the consequences of poor investment decisions.

As the economy moves through a complete business cycle the pressure on venture capital businesses (particularly new firms) to perform will increase. This process will squeeze out poorer operators and force those surviving to raise their skills – an outcome that is consistent with a maturing market.

New venture capital firms are almost compelled to pursue volume in the early stages, to get funds invested, to build a reputation for doing deals and to obtain a spread of risk in their portfolio.

Certainly it was the view of at least one experienced investor that many newcomers to the market have yet to face the challenge of dealing with investments that begin to struggle.

As two who have had to deal with struggling businesses have admitted, there is real pressure on them to rescue their dud investments to protect their reputation, at least in the short term. Their track record of successful investment is crucial in securing funding – failures call into question their competence to analyse accurately and make the right calls. But there is little or no commercial justification for the time and resources involved, and they concede that as they become more established, as venture capitalists, they will be more ruthless at ditching dud businesses. Most venture capital companies we interviewed had fewer than ten live investments. The more active investments a business has, the easier it is to dump poor performers – it makes less difference to the overall investment portfolio.

Interestingly those raising concerns about the quality of the deal flow tended to be amongst the more experienced venture capitalists. That may reflect genuine concerns about the robustness of the investment propositions being backed and the wider reputation of the market, or it could be dismissed as established players reacting to increased competition for deals. A third explanation is that the more established venture capitalists tend to focus on fewer but larger deals, where quality is everything.

The quality of decision-making in the venture capital market will improve over time as people in this market gain experience through the number and range of transactions undertaken. The venture capital process involves a number of stages – selection, investment, management, exit – which can take at least five years to complete. Genuine experience, therefore takes time to acquire. The majority of venture capital firms currently operating in New Zealand have not yet been through the full cycle from selection to exit. They may appear to be successful on the basis of the number of deals they are investing in. But most are yet to face the real test – delivering on the “active” component of their investment, achieving an exit and calculating the final returns. That experience is likely to prove sobering for many, and will be a real test of the robustness of the industry.

### *Deal flow*

An important aspect of the interviews was to establish the characteristics of the deal flows.

Probably the most striking feature from most of those actively involved in providing venture capital was the high volume of potential deals firms were handling. Generally firms claimed deal flows of between 3 to 15 per week depending on the size of the business. It is important to remember that for young venture capital firms their focus will be on securing new investments. As they mature the emphasis of their business will tend to shift to managing investments and looking for exits, rather than seeking potential deals.

Most formal proposals for capital will get at least a brief (up to half a day) appraisal, and either be rejected with some constructive advice, referred to professional advisors for more work (grooming or scrubbing up), referred to other venture capital firms, or investigated further. The increasing number of venture capital firms provides more scope for individual proposals to find an appropriate match between entrepreneurs and the venture capitalists.

The number of deals that can be considered seriously at any one time appears to be between 5 to 12, again depending on the size of the firm. The majority of venture capital firms have between two and four principals who have the experience and expertise to sign-off appraisals and manage investments. There is considerable pressure to cull investment proposals sooner rather than later to avoid overhead costs swamping prospective revenues.

There is also an incentive for venture capital firms to build up their portfolio of investments relatively quickly to spread their risk. Clearly every deal they do must satisfy their risk return requirements, but the more live investments the broader their spread of risk. Co-investing is another method of reducing risk by spreading the number of investments and sharing the appraisal costs and expertise.

The process firms go through in appraising deals is probably best illustrated by two formal procedures outlined in company documents available to businesses seeking venture capital. They are presented in Appendix III at the back of this report.

### **3.5 Returns**

The prime motivation of venture capitalists is to make money. That means they are looking for investments that provide returns commensurate with the risks they are taking. The majority of their returns come from the rise in the value of the equity they invest and so exit is a key issue. Some investors also generate fee income from advisory work as they develop the deal and seek co-funding.

Expected returns vary considerably through the industry, depending what point of the risk/ return curve they are operating at. Firms investing in the startup or early stage of business development are looking for returns ranging from 40% to 100%, whereas firms focused on the expansion, or buyout stage will tend to seek returns of between 20% and 40%. Those companies with an established track record are generating returns within their expected range. In some cases early stage investors are setting their return targets in terms of multiples of their original investment. Star performers within venture capital portfolios can produce spectacular returns, with one indicating gains of 22 times the original investment in less than three years.

There are investors who are not solely focused on equity returns. Corporate venture capitalists have a strong strategic element to their investing – ensuring the new businesses they invest in have a good fit with their own business or reduce competitor activity. In the case of banks and stockbrokers, active equity investing in a small, or young, company potentially offers a valuable long-term relationship to generate service fees. This relationship is often a precondition of initial equity funding.

Several venture capitalists pointed out that overall returns were heavily influenced by the "vintage year" of the investment – the year in which the investment was made. Essentially, the argument is that investing in difficult economic times is more likely to generate some attractively-priced investments as firms struggle to find finance and perceptions of value are pessimistic. Thus the state of economic conditions at the time of investment, and exit, has an important bearing on overall returns.

It seems clear that company valuations in New Zealand, even for tech-oriented firms with good global product, has lagged well behind the sort of valuations applied to start-up and early stage US businesses. Indeed a significant part of one New Zealand venture capital company's rationale is the substantial difference in business valuations between New Zealand and other countries.

### **3.6 Exit and capital gains**

A fundamental aspect of venture capital investing is securing an exit from each investment. Not until this stage has been completed is there a concrete return for the venture capital company.

Time and again venture capitalists emphasised the importance of a well established exit strategy. Several viewed the exit strategy as one of the key issues to resolve before investing in a business. In many cases the timing, the prospective buyer (if it is intended to be a trade sale), the product range and financial performance of the business are all determined as part of achieving a successful exit. In this sense it is a meticulously planned process.

An important issue is exposure to tax on capital gains. The priority given to having a well defined exit from any investment clearly demonstrates an intention to sell at the time money is invested. This then makes them liable to pay tax on any capital gains they make. Some venture capital businesses avoided the issue of exiting out of concern for the tax implications. And one venture capitalist had been advised to pay tax on their total returns.

The question of tax on capital gains is a very important issue for the venture capital market. At the moment most firms operate on the assumption they will not be subject to tax on the capital gains achieved in their investments. This approach simply adds to the risks involved in venture capital investing. For major institutions keen to protect their reputation the issue of capital gains tax is particularly vexing – it appears that they tend to err on the safe side and pay tax on their capital gains therefore increasing the returns they require before investing.

In Appendix I we reproduce an Infometrics article first published in June 2000 discussing the implications of the lack of a capital gains tax for New Zealand's corporate behaviour. The gist of the article is that entrepreneurs may be persuaded to sell rather than expand their business because of the relative risks and benefits relating to each option.

### 3.7 Gaps

In simple terms the gap in the venture capital market will always be between budding businesses seeking finance and the willingness of venture capitalists to provide it. This so-called funding gap does not necessarily mean that the market is not operating efficiently in this area. The fact that many potential ventures are unsuccessful in securing finance may simply reflect a realistic assessment of their prospects. The gap, then, is between funding and prospects.

In essence it is a gap in perceptions of risks and rewards and may boil down to information and the cost of obtaining what is required to bridge the gap in perceptions. If there is an information gap then there would seem to be an opportunity for the market to fill it.

Major professional accounting firms and a significant number of smaller venture capital businesses are looking to do just that. The process of grooming, or scrubbing up, business plans to present to potential investors is being undertaken by these firms in an attempt to reduce the perceived risks and information shortfalls that constantly threaten to sink deals.

The main problem, though, is the cost of undertaking this work, especially given the risk for the business advisory firm of not receiving any rewards for the work undertaken, or for the entrepreneur paying for services that still do not get him the money.

Some venture capital and professional services firms are prepared to share these risks by making fees dependent on the success in raising the required capital.

There are at least two information hurdles to overcome: firstly getting the details of the proposed business clear. This means understanding the idea, building an accurate picture of the entrepreneur (trust is crucial) and establishing the financial/business credentials. Clearly the entrepreneur generally has a better handle on this information than the venture capitalist. The second key area of information is the potential success of the concept in the market place. Entrepreneurs are often poorly informed about market prospects and pricing. In contrast venture capitalists, with their networks, are generally better placed to assess the commercial viability of the concept than the entrepreneur.

The concern expressed by a number of venture capitalists was that many business proposals lacked the level and robustness of detail required to make it worthwhile progressing. The inference is that the costs that would have to be incurred by the venture capitalist to assemble and verify the required information, in relation to the size of these sort of deals, made them uneconomic to pursue.

Our conclusion is that an information gap does exist, and that the market is addressing the gap, with specialist "grooming" services trying to find innovative ways of bridging the information economically. Nonetheless, the costs of "grooming" relative to the size of deals on offer is an inevitable constraint to the market addressing this issue more effectively for many small businesses. The Great New Zealand Business Venture competition has highlighted the information gap and to a degree has helped address it by offering the sorts of "grooming" services required for free.

Transaction costs (information, negotiation and contracting) are a significant part of venture capital investing especially given the intangible nature of the assets, and the volatile and unproven returns. Although transaction costs are unavoidable well functioning market intermediaries will minimise them via specialisation and segmentation. Evidence of both is appearing in the New Zealand venture capital market.

A useful discussion of perceived risks, and the cost of information in relation to scale is provided in a review of Australia's Pooled Development Fund<sup>16</sup> (PDF) programme.

*In some circumstances information flows cannot overcome perceptions about risk. The concepts of asymmetric information and moral hazard are central to many discussions about small business finance. External investors are often held to have less information about the business than the owner. (The reverse is also possible for start-up businesses where professional external investors may have a better idea of the business environment than the owner.)*

*This information differential between insiders and outside investors clearly exists for large and small businesses alike. However, the transaction costs for external investors discovering the relevant information about a small investment opportunity are proportionally larger than for a large investment opportunity. There may be fixed costs or declining marginal costs associated with doing due diligence research. Further, information about large (listed) firms can be of benefit to a large number of investors so they are each prepared to pay a broker who can recoup the costs of information from a large number of investors (a price-excludable public good). A large existing firm has a history, which can relatively easily be evaluated by external investors. A new small firm has no history.*

*The insider may therefore have a different view of the risks associated with investment in the small enterprise than the outsider who is less certain about the information they hold. The outsider may judge it economically unprofitable to seek out expensive information about small investment opportunities. In these circumstances a perceived gap arises between the supply and demand for finance at any given price. Small entrepreneurs believe that external investors are excessively risk adverse and investors believe that entrepreneurs have an unrealistic expectation about the cost and availability of capital.*

*In addition, the external investor faces a moral hazard problem that contributes to the perceived funding gap. The projects that entrepreneurs are wholly confident about are the least likely to be offered to investors. This means that expensive due diligence exercises are required by external equity investors. Equity participation enables an external investor to participate in the success of a project, but without the safety net of collateral. There are only imperfect guarantees about the actions of the SME once the investment is made, thus it is unlikely that the investor can value a deal in the same way that the equity seeker will. This difference in valuation will appear as an equity gap to SMEs.*

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<sup>16</sup> Review of the Pooled Development Funds Programme, a report prepared by officers of the Department of Industry, Science and Resources, Treasury and the Australian Tax Office, 17 June 1998, p 29.

*However, this does not mean that there is an equity gap that can be overcome by government action. Different information sets and the existence of moral hazard or risk are not issues that can be overcome without cost. These costs of discovering information are real and do not constitute a market failure. Simply transferring these costs to taxpayers would not improve the economic efficiency of capital markets.*

The above tends to confirm our view that the paucity, and cost, of information associated with considering investment in small businesses, and particularly at an early stage of development, are a major constraint within the venture capital market. Specialist firms are aware of the opportunity that exists to reduce the information/risk gap, but doing so at reasonable cost is a key issue.

One partial solution to the risks and information costs involved in venture investing is the practice of co-investing. This appears to be common in New Zealand. Investors share the costs of investing and the risks involved. It speeds up the creation of a balanced portfolio, which is important in reducing risks. It also provides access to subsequent capital calls from the same business – these will tend to be significantly more cost effective given the accumulated knowledge about the business and its ability to succeed. Co-investing also increases the network of contacts to help the company succeed.

### **3.8 Stock of deals versus the flow**

The rapid growth in the venture capital sector in New Zealand over the past three or four years may simply reflect the market catching up with an opportunity that has been staring them in the face for some years. The increasing availability of venture capital and associated services may well be encouraging previously disillusioned entrepreneurs to offer their ideas. There will be, of course, deals that are relatively time sensitive. IT oriented business proposals are likely to age quickly and would therefore not be part of a potential stock of deals that may have accumulated over the past five or so years.

If there is a significant stock of deals that is available to invest in then there are some important implications for venture capital firms over the next five years:

- It has been a relatively easy time for venture capitalists to find good deals over the past three years as they have worked their way through a backlog of deals
- The strong deal flow may not continue
- The number of good quality deals will decline as the market moves to rely on the underlying flow of new deals

These pressures may begin to bite just as some of the deals they have taken up over the past two years or so start to wobble. As long as the skills and resources required to appraise deals can be shifted into managing problem businesses, venture capital firms will remain busy.

The surge in venture capital activity over the past three to five years may also reflect returning confidence in this area of investment. As investors become more confident that there is a robust venture capital operating they will be willing to apply

funds to it. Furthermore entrepreneurs and a host of support services will be keen to tap into the market.

Market confidence is fundamental to the development of a viable market. New Zealand had a thriving venture capital market in the mid-1980s, but the share market crash in 1987, and some high-profile failures in the early 1990s (the Skellerup MBO) has made it difficult to restore the level of confidence required for a vigorous market. But current activity in the venture capital market suggests real progress is being achieved.

## 4. How Well is the Market Working?

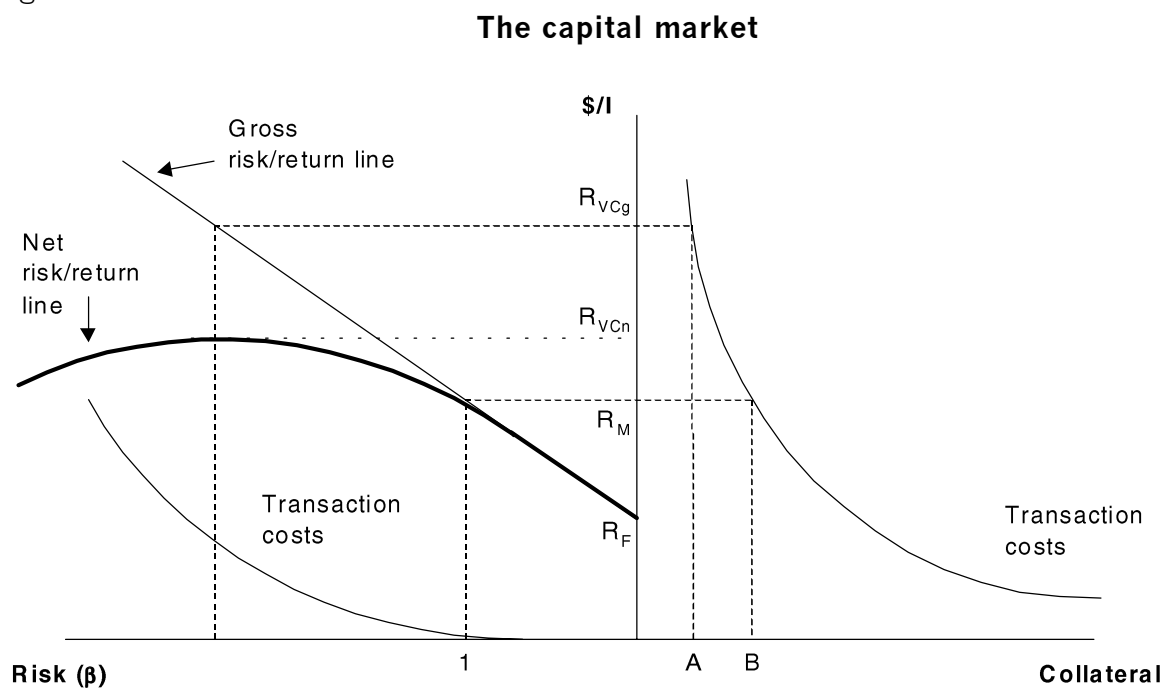
In this chapter we take a more theoretical look at how the capital market works with a particular focus on the tensions relevant to the venture capital market. Our aim is to illustrate how the information gap discussed above actually impacts on the functioning of the venture capital market and how it may constitute a market failure.

The key messages from this more technical analysis of the venture capital market are set out at the end of this section.

### 4.1 Venture capitalism

An investor contemplating different investment projects will be trading off the potential risks and returns associated with each project. As the perception of risk rises the investor will seek a higher rate of return to justify taking that risk. The risk/return line on the left-hand side of Figure 4.1 represents this trade off between risk and return.

Figure 4.1



The expected rate of return (gross) for any investment,  $R_{VCg}$ , can be defined (ignoring tax impacts) as:

$$R_{VCg} = R_F + \beta(R_M - R_F)$$

$R_{VCg}$ , is equal to the risk-free rate of return,  $R_F$ , plus the perceived riskiness of the investment,  $\beta$ , multiplied by the difference between the average market rate of return,  $R_M$ , and the risk free rate.

By definition the perceived risk of the average market investment is equal to unity. Projects with higher than average levels of risk associated with them will need to offer investors proportionally higher rates of return to attract sufficient funds to

undertake the projects. The gross risk/return line in Figure 4.1 represents this trade-off.

Investors contemplating an investment will undertake some form of due diligence before committing their funds. Such investigation is not costless, though for many low risk investments the costs are likely to be small. As perceptions of riskiness increase – generally a function of uncertainty and paucity of information – the costs of undertaking due diligence will also increase. These transaction costs (TC) must be deducted from the gross returns, thus producing the net risk return line, which can be defined as:

$$R_{VCn} = R_F + \beta(R_M - R_F) - TC$$

It seems reasonable to conclude that due diligence costs will increase more than proportionately as risk increases. There will come a point where the costs of assessing and supervising the performance of prospective investments will generate no extra return – the point where the net risk/return line is horizontal.

Investment projects that have transaction and management costs that exceed the expected risk adjusted returns will not be undertaken. As illustrated in Figure 4.1,  $R_{VCg}$ , represents the maximum rate of return that a financier will be prepared to finance a project at. Beyond that point transaction and management costs will more than outweigh the additional prospective returns available, so in net terms, returns begin to decline as risks increase. No sensible investor will stray into this territory.

We can assume that projects with interest costs of  $R_M$  or less will generally be financed using traditional bank debt, corporate bonds, or the stock market. For riskier projects, more active supervision is required. We also assume that perceptions of risk will be directly related to company size and experience.

#### *Business collateral – credibility, experience*

We have attempted to capture this concept on the right hand side of Figure 4.1, by relating the transaction costs of undertaking due diligence and managing investment projects to the amount of company collateral or credibility. We use the term collateral in a very broad sense to include intangible factors as well as the tangible financial position of companies. For example, an individual with a track record of successfully developing new businesses is likely to have greater sway with financiers than a simple analysis of her current assets might suggest.

The transaction costs of assessing someone, or a business proposal, with high collateral will be lower than for a proposal or individual with low collateral or credibility. In practice, business collateral will be generally higher in larger and well-established businesses, than in small and early stage ones. Furthermore, when dealing with a large company, as long as the company is financially secure, the performance of the specific project will not necessarily harm the security or returns of the financier. For a small firm, the viability of the project is everything. This relationship is represented by the transaction cost curve on the right hand side of Figure 4.1.

An interesting point arising relevant to the above point was the strategy of a business focusing on the IT sector with respect to potential, or actual, failures. The key resource (collateral) in these firms tends to be the intellectual capital, particularly in the area of software development. These resources are relatively transferable, as well as being relatively scarce. The strategy to minimise downside risks is to ensure these IT skills can be transferred to other venture companies within their portfolio. In this sense the collateral is retained and redeployed.

By our assumptions, firms or individuals who have collateral in excess of B, will tend to have their projects financed by the traditional financial markets (banks, etc) in a fairly hands-off way. Firms or individuals with less collateral than B, but more than A, will be serviced by venture capital firms (or the venture capital arms of financial firms). Firms or individuals with less collateral than A will not have their projects financed – the costs associated with analysing the risks are too high to justify financial support. That these projects are not being financed does not represent a market failure – they simply do not represent good business opportunities.

## 4.2 Market failure, or simply high cost of information?

Market failure in capital markets typically occurs when participants make decisions based on inadequate or inappropriate information, which leads to suboptimal resource allocation. The venture capital market is characterised by significant information asymmetries. This is unavoidable given the nature of the assets involved. These asymmetries make transacting in this market risky and difficult. The particular institutional structures that have evolved around venture capital counter the asymmetries to a certain extent although they are not a complete solution.

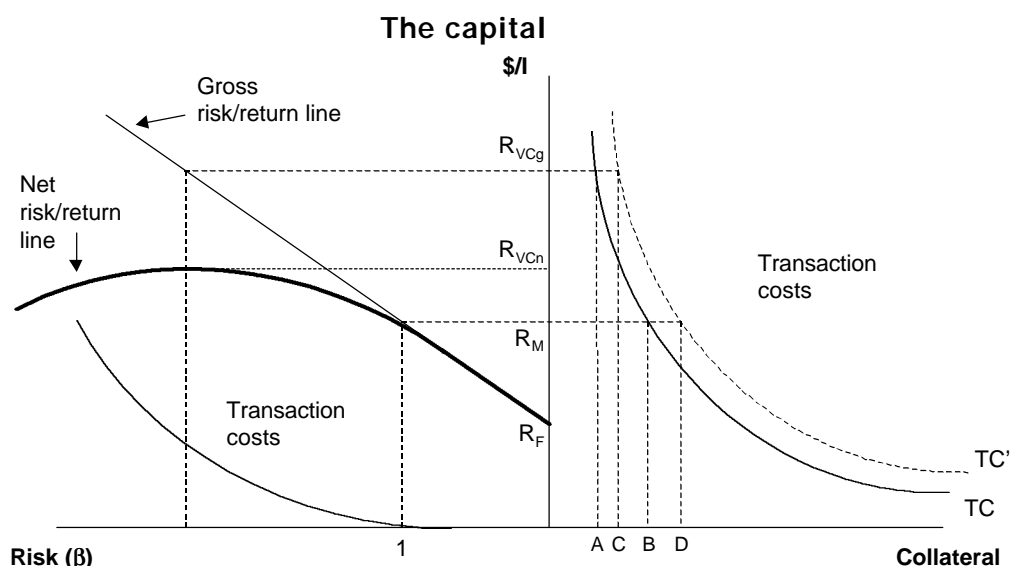
An example of a potential market failure and its consequences is illustrated in Figure 4.2. Figure 4.2 is similar to Figure 4.1, except we have assumed that information asymmetries result in an increase in the transaction costs of assessing investment projects. This is represented by an outward shift in the transaction cost curve from the solid line, TC, to the dashed line, TC'.

Such an increase in costs would change perceptions about the riskiness of different projects and would therefore change the preparedness of financiers to offer funds<sup>17</sup>. The traditional finance sector would now only be prepared to offer funds to firms with collateral of D and over (thus reducing their market by D–B). Venture capitalists would be prepared to fund these projects, but, with higher due diligence costs, they would also demand a higher level of collateral from potential creditors. The venture capital market now finances firms with collateral between C and D. The net loss is experienced by firms with collateral between A and C.

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<sup>17</sup> This example is not a comprehensive explanation of how market failure impacts on the financial market. For example, one would also expect to see a shift in the transaction cost curve on the left-hand side, but this was avoided to simplify the presentation in Figure 4.2. Obviously once there was a change on the left hand side we would also expect to see changes in project rates of return.

Figure 4.2



market

**The key messages from this analysis are:**

- The inability of some entrepreneurs to access finance does not necessarily constitute a market failure. It could merely reflect a rational assessment of the project's merits in light of the costs likely to be incurred assembling the required information.
- If market failures do exist, they are likely to disadvantage entrepreneurs with lower levels of collateral, but they will also reduce the market share of the "formal" finance market.
- It is not obvious whether venture capitalists would necessarily benefit from a reduction in due diligence costs. They might simply have a change in their client base.
- If market failures do *not* exist, market interventions that promote venture capital activities would potentially impose net costs on the economy as the money spent would be on the high risk projects that rational agents would not support on their own volition.

Risk aversion and the existence of risk per se are not market failures. It is sometimes argued that governments are better able to pool risks than the private sector because of their longer time horizon and access to funds. However, this argument only carries weight for high value risky investments. For the relatively small investments relevant to the New Zealand venture capital market, the private sector is probably capable of providing the necessary risk pooling mechanisms, such as co-investing.

## 5. Policy Issues

Those small and medium sized businesses backed by good venture capitalists, will arguably perform better than other businesses in terms of job creation, exports, growth, and the take-up of technology. To the extent this proposition is true, there is a case for focusing government policy on ensuring the venture capital market works well.

From the interviews conducted as part of this study and our analysis set out in this report there are at least four important conclusions that have implications for policy development:

- The venture capital market is still relatively immature in New Zealand. As it broadens and deepens some of the bottlenecks that currently appear to exist may well be resolved.
- There is no clear evidence that a lack of venture capital for existing small businesses wanting to expand is a major constraint to the growth of small and medium sized enterprises.
- Nor is there a consensus within the venture capital market that there is a lack of good business proposals backed by good people; that is, the supply of good ideas is not a problem.
- The cost and paucity of information is the major constraint to funding business ventures, especially those around the start up stage.
- The market is historically fragile and therefore any policy intervention needs to be carefully considered.

### 5.1 Information

In section 4.2 above we postulated that information issues probably lie at the root of any perceived gap or constraint in the venture capital market. Difficulty in obtaining accurate information about:

- Individuals – how they will respond to constant and severe business challenges.
- Products, concepts – their ease of production, reliability, etc.
- Markets – how they may change, competitive pressures, pricing, opening up new markets.

Uncertainty about the future presents a cocktail of risks that must be set against the potential rewards that the project offers. Often the time and cost of reconciling these two factors will be too high for the deal to be considered in any great depth.

The cost of gathering and assessing information is by no means borne solely by the venture capitalists. It is clear that many entrepreneurs find it difficult to fund the cost of presenting a credible business plan – either they don't have the time, resources or skills to do it themselves, or they can't afford to have their proposal developed by a professional service firm.

Venture capital firms cannot justify pursuing too many deals in depth that may fail at the last hurdle. The cost of assessments that are eventually dumped substantially adds to the costs that must be recovered from successful deals.

***Policy implication*** – given that information costs and asymmetries are potential sources of market failure in the venture capital market, action to lower the costs of information gathering and presentation may improve desired outcomes.

There is already a range of firms and individuals providing "grooming" services for the venture capital market. The Great New Zealand Business Venture has demonstrated both the latent demand for grooming services amongst budding entrepreneurs and the willingness (and generosity) of the business community to nurture young businesses. Arguably, therefore, the market is solving the information divide.

A programme that underwrites the search and appraisal costs based on a maximum number per venture capital business, and a maximum dollar amount per appraisal, would help resolve some of the information problems that are inevitable in the venture capital market. Where deals are successfully funded no money would be available. Essentially it would lower the risks involved in deal searches and therefore increase the number of deals that are seriously considered.

It is important to leave the information gathering and appraisal to the market to ensure speed and quality of service – both are crucial. Comments from the interviews about experienced executives being keen to work in venture capital businesses suggest that the skill base required to process more business proposals could be expanded, but probably not rapidly. Having the resources and skills available to undertake the work is clearly an important precondition to providing what amounts to subsidy for transaction costs.

## **5.2 Capital gains tax**

The question of whether venture capital investors are subject to tax on their capital gains is an important issue given the priority many give to having a clear exit strategy for each of their investments. Taxing capital returns would significantly alter the risk reward trade-off that many venture capital companies are currently working with. The outcome would be a reduction in the number of deals completed and the amount of venture capital available.

***Policy implication*** – the current situation simply adds to the level of uncertainty some venture capital companies have to cope with. A clear ruling, or specific legislation would remove uncertainty for investors. Rules surrounding venture capital investing are more explicit, see below.

## **5.3 Seed/early stage investment, and R&D**

The risks and information difficulties are most intense at the very early stages of business development. There are few private, stand alone organisations that provide funding for pre-market product research and development.

Nonetheless, there is clear evidence that many medium to large businesses are investing in product research and development of their own, emphasising that venture capitalism is more widespread than specialist venture capital companies.

The central issue here is how to commercialise more of the nation's publicly funded R&D expenditure. Although this was not a focus of this study, comments from several of those interviewed pointed to some dissatisfaction with how the Crown Research Institutes interfaced with businesses, and concern about the lack of infrastructure for "laboratory" ideas to be managed through to commercialisation.

A related point raised by at least three of those interviewed was the apparent lack of commitment by the government and public institutions to developing technology intensive businesses. Their worry is that technological progress is accelerating and if New Zealand tech businesses want to secure funding, potential investors will need to be convinced that the economy has the depth of talent and infrastructure to support them. These sentiments are based, to a significant degree, on what these businesses see happening in Asian countries. They are concerned that New Zealand will continue to become a business backwater.

***Policy implication*** – consider changing the way the government's science and research funding is deployed with specific attention given to the idea of taking a proportion of public expenditure on research and development and apply it on a co-investment basis to start-up and pre start-up businesses. If the aim of government involvement in providing R&D funding is to stimulate the commercialisation of technology then co-investing in private sector seed businesses alongside private seed/venture capitalists is perhaps the least distorting approach.

## 5.4 Proximity to technology/business frontier

Government funded business assistance programmes will be most effective when businesses are operating well below best business practice standards.

Huang and Xu<sup>18</sup> argue that the potential success of government sponsorship of industrial development depends critically on the state of technological advancement in an economy. At low technology levels, most R&D projects can be characterised as imitating successful ideas from abroad. The risks of such projects are low and growth can be promoted by encouraging greater amounts of investment (ie capital deepening is the name of the game).

As a nation's technology advances, and approaches knowledge frontiers, the uncertainty of success from R&D projects increases. The ability of R&D projects (and investment projects in general) to promote growth hinges more and more on the selection of projects rather than on their scale or volume. Huang and Xu contend that financiers operating in competitive capital markets are more likely to select winning projects than government sponsorship – not necessarily because their selection processes are any better, but because they will be more ruthless in terminating bad projects.

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<sup>18</sup> Institutions, Innovations, and Growth, Huang H and Xu C, IMF Working Paper, WP/99/34, International Monetary Fund, 1999.

**Policy implication:** An acceptance of the Huang and Xu arguments implies that governments need to be cautious about jumping into the venture capital market. New Zealand businesses may be operating well within the best business practice frontier, implying there is a reasonable prospect of net benefits flowing from government intervention. As the market matures, though, the priority for the market is the quality of decision-making rather than the quantity of capital available. Like the venture capitalists, the government needs a clear exit strategy.

## 5.5 Other models

### *Australia*

The following paragraph highlights the rationale behind Australia's Pooled Development Fund (PDF) programme detailed below.

*Given the importance of SMEs in the Australian economy, and the widespread perception that SMEs have an unduly difficult time in accessing equity finance, there may be a role for government in educating the market about unexploited opportunities, especially for high-growth SMEs. There may also be a role to develop and deepen the venture capital market by encouraging new entrants if this can accelerate the attainment of economies of scale and scope by venture capitalists and other investors in the analysis of investment opportunities. On this rationale the purpose of the PDF scheme would be to encourage SME investments that would otherwise not occur. The resultant greater experience of both SMEs and investors with equity financing would see the development of increased awareness of market opportunities, increased skills and reduced costs in evaluating such opportunities and lead to a greater participation. Once this point had been reached the program would have achieved its purpose and could be wound up.*

The main features of Australia's PDF programme are:

- PDFs must invest in newly issued ordinary shares in Australian companies with total assets of less than \$50 million. This new equity must be used to establish a new business, substantially expand capacity, or expand or develop markets;
- PDFs cannot invest in companies whose primary activity is retailing or property development;
- There is no limit to the number of companies that can be registered as PDFs, but all must first be approved by the PDF Registration Board. In general terms, an applicant for PDF status needs to convince the Board that it has a good strategy for raising money and for using that capital to purchase new equity in Australian companies in a manner consistent with the intent of the programme. The applicant also needs to show that it has the resources and expertise to implement that strategy;
- A PDF can invest up to 30% of its issued capital in any one investee business. But the PDF Registration Board has discretion to allow PDFs to exceed this limit under conditions agreed in advance by the Board;
- PDF profits from investee companies are taxed at 15%, while profits from all other sources (essentially interest income on funds not yet invested) are taxed at 25%;

- Investors in PDFs are exempt from capital gains tax on the sale of their share in a PDF, and consequently there is no deduction for capital losses. Unfranked PDF dividends are tax exempt in the hands of the investors. Franked PDF dividends are also free of tax in the hands of investors unless the investor elects to be taxed, in which case they can use the imputation credits attached to the dividend at the corporate tax rate of 36% to offset other tax obligations. The election to have franked dividends taxed through the imputation system can be attractive to investors with a marginal tax rate below the company tax rate, eg superannuation funds;
- A shareholder (together with associates) may own up to 30% of a PDF, except for banks and life offices for which there is no limit. The PDF Registration Board has the discretion to vary this rule.

### *Germany*

The German government assists the venture capital industry by investing alongside private sector investors and also offering them two options:

- Put option: In the event that an investment turns sour, the co-investor can sell back its equity share to the government at a guaranteed minimum price level of 40% below face value.
- Call option: In the case of star performers, the co-investor can buy out the government for a 25% premium over face value. This, in effect, caps the government's upside, handing it over to the private sector.

Not surprisingly this scheme is regarded as having been instrumental in jump starting the German venture capital market.

### *Netherlands*

A report prepared<sup>19</sup> for the Netherlands' Ministry of Economic Affairs argues for a seed/start-up fund backed entirely by the government because of the unattractive risk/return profile of such investments. The case for such direct government involvement rests on research that shows that:

- There is a need for capital at the seed stage.
- Provision of this capital is high risk, and unlikely to be profitable.
- The private sector in the Netherlands is unprepared to fill this gap.
- Existing seed/start-up funds are insufficient to meet the needs of entrepreneurs.

Our view is that these are not particularly robust arguments for such decisive intervention.

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<sup>19</sup> Netherlands' ICT Twinning Centres and Investment Funds, Ministry of Economic Affairs, report prepared by Booz, Allen & Hamilton, February 1998.

### ***Has the lack of a capital gains tax hindered corporate development?***

Many firms established in New Zealand have been innovative and successful, but very few (if any) have kicked on to be successful, innovative, large and New Zealand owned corporations. A typical scenario is for a company to be established by a talented individual who through a combination of innovative ideas, good management, hard work and perhaps an ounce of luck, expands the company into a successful medium sized company (by New Zealand standards). This company might have a multi-million dollar turnover, but the founder remains the heart of the company. However, there comes a stage in the company's development where further expansion requires a large incremental capital injection and a comprehensive change in management structures.

This expansion represents a high-risk proposition for the owner/founder. If the expansion does not work the founder risks losing everything they built up over many years. Although the rewards from the expansion could be considerable, the owner may still place a bigger weight on each potential dollar lost compared with every potential dollar gained.

The owner/founder may also resist taking advantage of potential expansion possibilities for non-financial reasons. For example, they may not want to reduce their control over the company, either through handing control to new shareholders or through the delegation of responsibilities in a larger management team. Alternatively there may be lifestyle or company culture issues that could be put at risk with a large expansion. Indeed many firms have not survived the departure of their founder.

Thus a firm in this position has three possible responses:

- To manage the proposed expansion, perhaps through a public listing
- To maintain operations at current levels, or
- To sell the company – either to be amalgamated within the corporate structure of an existing large scale business within the industry or to an organisation that is better placed to manage the expansion.

A concern we have is that New Zealand's tax system, in particular a lack of a comprehensive capital gains tax (CGT), may be encouraging owners to prefer the third option (or alternatively the second option with an intention to sell eventually). A preponderance of such decisions could be contributing to a scarcity of home-bred corporate management skills in New Zealand, as evidenced by the poor performance of listed companies in New Zealand.

The market valuation of a company will include a valuation of its capital assets and also a valuation of its future prospects. Such valuations will include many intangible factors such as:

- brand values,
- company reputations,
- economies of scope,
- human capital and
- the impact of expected market developments.

In principle taking these factors into account should be equivalent to the net present value of the future earning power of the company – given current information and expectations and providing for a normal return for any potential purchaser. As such the company valuation will incorporate an allowance for future income growth. If the owner chooses to sell he or she will realise today a proportion of the company's future income potential, ie they will earn a capital gain.

There is nothing wrong with the owner making this capital gain; it is a fair return on past effort and innovation. However, is it fair that they pay no tax on this income? The lack of a capital gains tax is likely to skew owners towards deciding to sell rather than risk carrying out an expansion themselves. By selling they can realise a share of future income growth, without taking the risk and with a lower tax burden. Not only does the current owner achieve a risk-free share of future expansion prospects (s)he also receives a tax break for doing so.

The interview guides

### ***Deal flows/performance***

*Establish what funds the firm/enterprise has available to invest:*

- MED's venture capital firm report provides initial guide
- Is capital all paid up – weight of money problems for fund managers
- Or available to be called up from investors formally or informally
- Backed by related party balance sheets – if successful plenty more available
  
- *What rules govern use of the funds – sector, nationality, domestic/export, single amounts*
  
- *Level and characteristics of demand*
  - How many prospective investment targets do they normally have on record at any one time
  - Number that are inactive, active, top of the investment committee agenda
  - Number that are rejected almost immediately
  - Time and resources involved per deal
  
- *What channels does your firm use to identify/attract potential ventures*
  - Active search and direct approach
  - Brokers – accountants, banks, stock-brokers, etc
  
- *Deal drop-off rate*
  - What stages of analysis/consideration do deals go through
  - What is the drop-off rate at each stage
  - What percentage of firms initially considered, actually receive funding
  - What common factors if any are there in those propositions that are rejected
  
- *Investment criteria*
  - What are the firm's investment criteria – size, industry, equity only, period
  - How strictly does the firm stick with the criteria?

- *Size and structure of deals*
  - What is the average size of a deal
  - How is it normally structured equity, debt, options, etc
  - Are firms simply looking for capital or are marketing connections, management expertise, etc crucial ingredients
  - Board representation, reporting
  - Any consistency across industries/activities, company sizes
- *What stage of development are potential recipient firms at in practice and ideally*
- *Failure rate*
  - Of the investments made how many have not returned anything and are unlikely to
  - How many have return less than was invested and how do you retrieve that money
  - What were the main reasons for investments failing – poor judgement by investor, unforeseen technical problems, talent changes, economic conditions, etc.
  - How many provide an inadequate return
  - How many provide expected, or better than expected, returns

Given the immature state of the market it might be difficult to get good quality answers to these questions.
- *Rate of return*
  - What rate of return do you look for when investing, and in practice what is the range of returns you are currently looking at
  - What is the typical length of investment
- *Common problems/mistakes associated with actual investments – unrealistic budgets, people problems, poor information flows.*
- *Exit strategy*
  - What exits have been achieved
  - What are the options – conventional, innovative

***Gaps analysis – information, skills, funding***

1. What role do you see your organisation filling in the venture capital market?
  - Scrubbing up proposals
  - Brokering deals
  - Providing capital
  - Establishing important relationships between businesses and individuals
  
2. What expertise do you bring to the venture capital market?
  - Financial and accounting knowledge/skills
  - Technical knowledge
  - General business skills and experience
  - Marketing experience to refine strategy and build effective contacts
  - Good network for raising capital
  
3. What returns/rewards are you seeking from your input to the venture capital market? – what’s your business case or strategy?
  - Straight financial return on time and money invested
  - Long term capital gains – (what tax implications are there?)
  - New customers
  
4. Where is the major constraint to growth for your venture capital related business?
  - The number or quality of firms seeking funding
  - Capital to invest
  - Appropriate expertise to develop successful proposals
  
5. How much capital have you been directly involved in investing? How many firms have you “satisfied”?
  - Want a feel for the volume of business being conducted

6. Where do you get your capital from?
  - Private individuals – angel investors
  - Family and friends
  - Pooled private funds
  - Existing venture capital companies
  - Related businesses/ corporate investors
  - Other
  
7. Where do you see the main gaps in the venture capital market?
  - Are these gaps being closed by new firms entering the market/existing firms changing their business?
  - Do you perceive any role for government in addressing existing gaps – if so what role?
  - Have any gaps been filled over the past five years – which ones?
  
8. What relationships do you have that are crucial in performing your business?
  - Lawyers/accountants
  - Banks
  - Other venture capital companies
  - Individuals with specific technical business expertise
  - Crown research agencies
  - International businesses looking for local partners

Deal appraisal process

*Craig & Co*

## ***Process***

### **1. Enquiry**

- Respond – Outlining Craig & Co process
  - Terms of engagement
  - Investor requirements
  - Confidentiality undertaking

### **2. Complete Memorandum of Understanding**

- SME responsibility
- Craig & Co role
- Information Requirements – by who
  - when
- Fee Structure

### **3. Evaluation Process**

- Questionnaire
- Independent opinions and assessments
- Valuations
- Recommendations

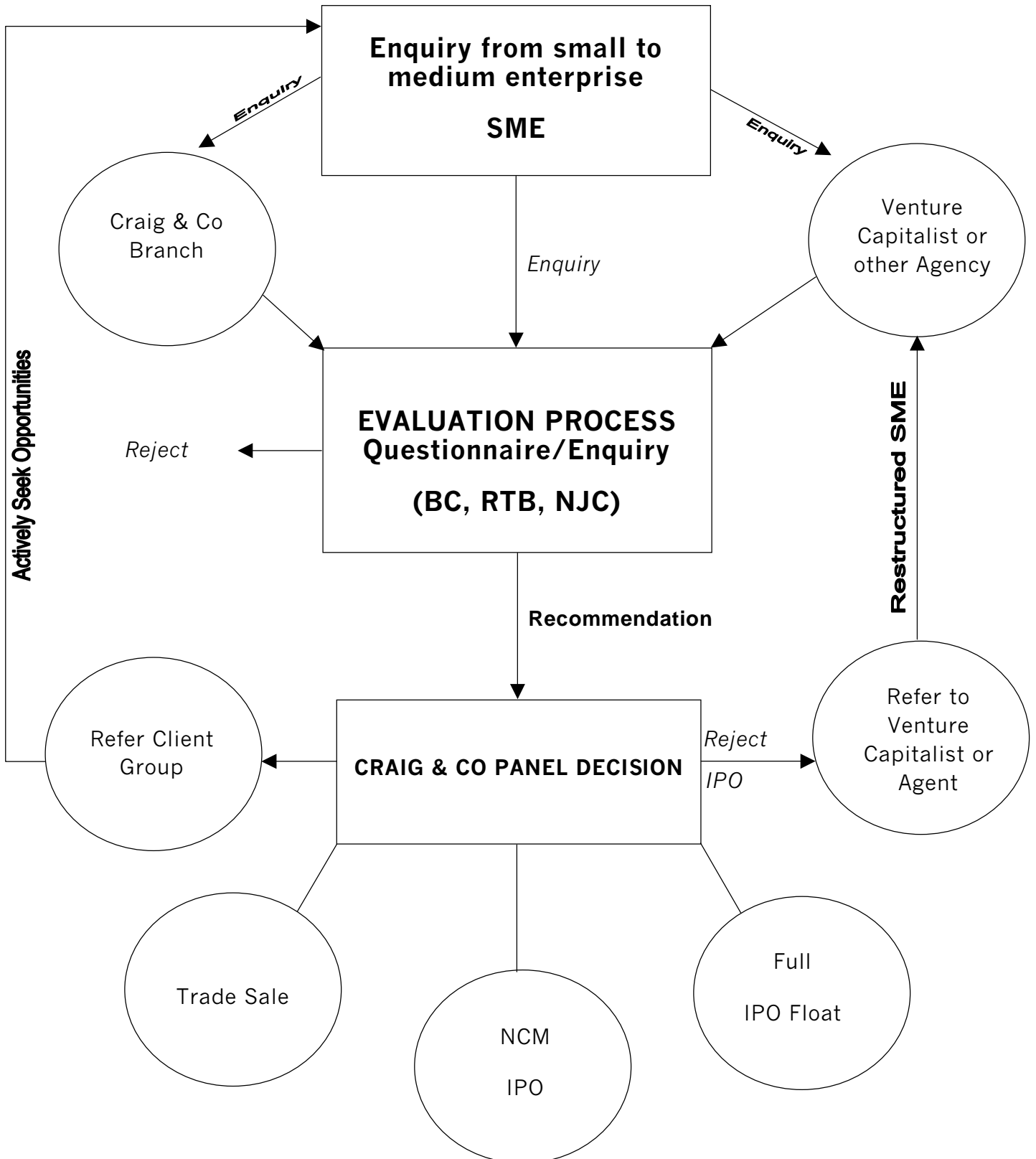
### **4. Panel Opinion**

- Reject SCM – IPO
- Refer Venture Capitalist
- Full IPO
- Trade Sale
- Proceed SCM-IPO

### **5. SCM**

- IPO PROCESS

**NEW CAPITAL MARKETS**  
Overview of Craig & Co Process



## CALTECH Investment process

### *Introduction*

Caltech has developed a comprehensive investment process involving a three phase screen. The process is designed to minimise the risk of CDCF Group investing in portfolio entities which are unable to achieve CDCF Group's return objectives. A preliminary assessment of the company is carried out in phase one. Phase two involves application of the comprehensive Bell-Mason investment diagnostic. Further analysis, including discussions with external parties relevant to each dimension, is undertaken in phase three.

### *First screen – The CALTECH*

Phase one assesses potential investees against the CALTECH preliminary screening criteria. These criteria seek to establish the likelihood of the venture achieving rapid growth. Areas examined to determine the economic viability of the business and its potential to contribute to CDCF's investment strategy and return objectives are:

|                              |  |
|------------------------------|--|
| <b>Competitive Advantage</b> | uniqueness of the products, ownership of intellectual property             |
| <b>Alliances</b>             | strategic alliances, endorsements from clients, board members              |
| <b>Limit of market</b>       | market and segment sizing, competition, pathway to market                  |
| <b>Team</b>                  | calibre and skills of the management team                                  |
| <b>Entrepreneur</b>          | track record and ability of the chief executive                            |
| <b>Capital</b>               | capital requirements, burn rate and valuation of the venture               |
| <b>History</b>               | milestones achieved, financial performance, and successful capital raising |

### *Second screen – The Bell-Mason Diagnostic*

Phase two involves application of a comprehensive diagnostic methodology across each of twelve business dimensions being technology, product, manufacturing, business plan, sales, marketing, chief executive, team, board, cash, financeability and controls. The diagnostic is the Bell-Mason Diagnostic and is detailed on pages 17 and 18 of this Memorandum. The result of applying the diagnostic is a graph which illustrates a gap analysis benchmarked against a database of six hundred successful high growth companies.

### *Terms sheet*

The term sheet is the handshake "agreement" between CDCF Group and the investee company and accomplishes the following purposes:

- it reflects the agreed valuation of the business and the proposed allocation of that value between the existing shareholders and CDCF Group;
- it summarises the key financial and legal terms of the transaction which will serve as the basis for preparing definitive legal documents;

- on occasion, the terms sheet will impose legal obligations on the parties, such as requiring payment of expenses in the event the investment does not occur or prohibiting negotiations with other parties pending the completion of the transaction.

Above all, the terms sheet is used by CDCF Group to elicit those concerns of investee company management which, if unaddressed and unresolved, might later develop into “deal killers”. Typically, the CDCF Group term sheet covers:

- the structure and form of the investment in terms of form of security, conversion, pre-emptive and voting rights;
- board representation and minority protections;
- warranties and indemnities;
- employee contract requirements and restraint of trade provisions;
- conditions including due diligence; and
- workable procedures for divestment.

### ***The third screen***

Phase three involves an in depth analysis and discussion with external parties on key aspects of each dimension. Review of documentation providing intellectual property protection, discussions with manufacturers or key component suppliers, testing of consistency in strategic and operational plans, discussions with customers and licensed distributors, discussions with past employers, review of employment documentation including restraint of trade agreements and profit share agreements, analysis of board meeting procedures and minutes, assessment of cash requirements measured against accumulated liabilities and burn rates, review of capital structure and return objectives and review of key control systems are undertaken.

### ***Legal documents***

Legal documents will typically include an investment agreement, which will detail the terms of purchase and the provisions of the securities being acquired. All obligations or limited obligations debentures and loan agreements may be required. A minority shareholders agreement will document restrictions upon the transfer and voting of securities. An employee share purchase agreement which governs any current or future allocation of equity in the business to key employees may form a separate legal document or form a part of the investment agreement. Additionally, employee confidentiality and proprietary rights agreements assuring the retention by the investee company of its intellectual property may form part of legal documents.

## ***Caltech – the Bell-Mason diagnostic***

### ***Proven evaluation methodology developed over fifteen years***

The Bell-Mason Diagnostic is an evaluation methodology renowned in the United States. Caltech has adopted it as part of its evaluation process of CDCF Group portfolio companies. The methodology is an expert system which provides a rigorous and structured approach to assessing a proposed investment against recognised benchmarks.

The analytical approach of the Bell-Mason Diagnostic is based upon evaluation rules which have been generated from in excess of six hundred actual cases over fifteen years. By comparing the investee company to the pool of experience, the diagnostic provides a consistent and objective methodology for analysing and comparing companies.

Although the diagnostic was originally designed to serve high growth companies the guidelines are equally useful for large company intrapreneurs and it is used by corporations such as Mitsubishi, Motorola, DEC and Philips. Executives within these large corporations must deal with the same issues as entrepreneurs.

The system assesses the health of any business at each stage of its development from concept through to achieving a steady state in the market development stage.

### ***Relational graphic output***

One of the features of the Bell-Mason Diagnostic is the way it depicts the results of the analysis by use of a relational graph. This enables Caltech to assess a company by examining twelve critical dimensions at a given stage. The shape of the ideal investment has been formed by observation and testing.

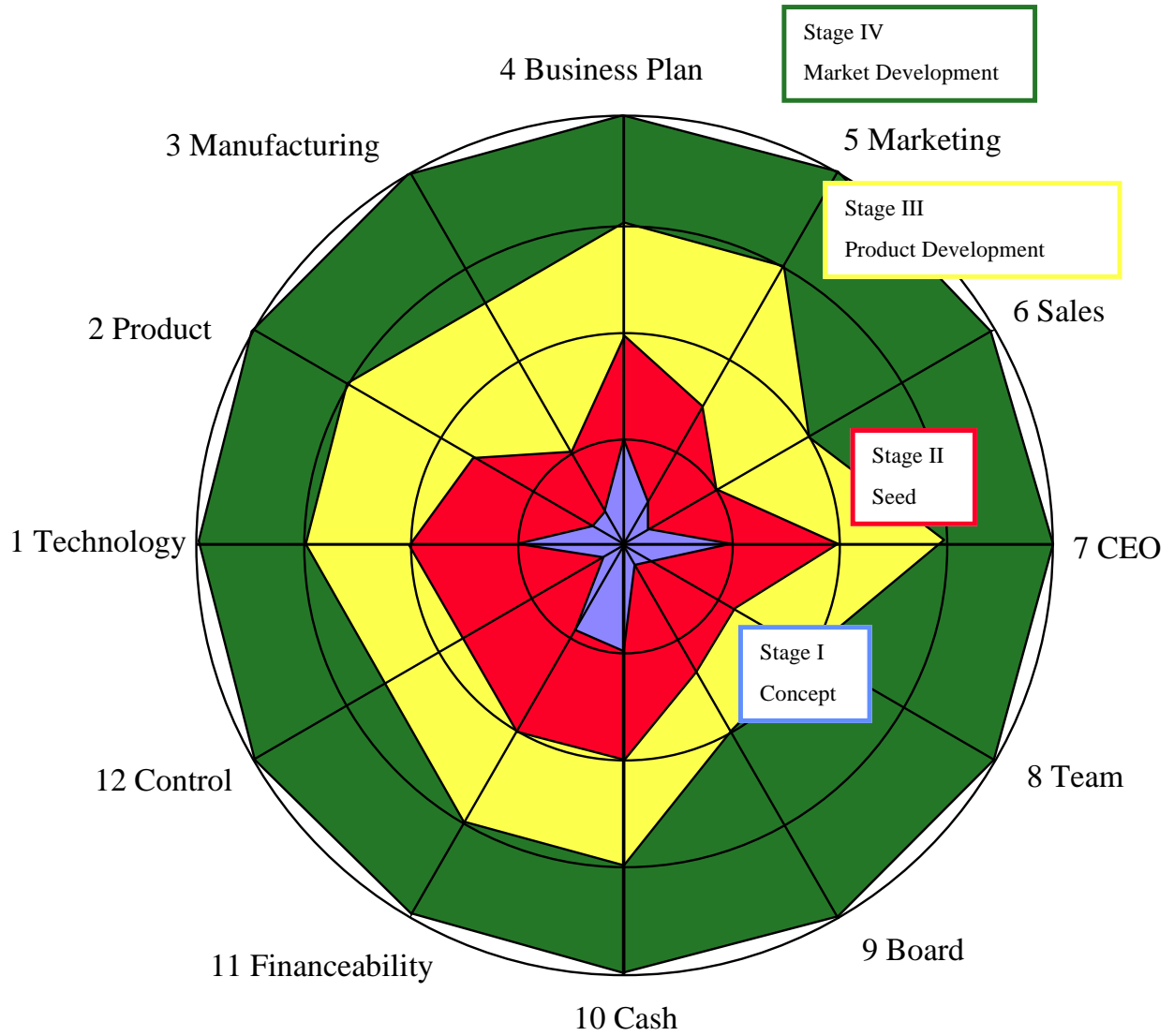
The four concentric circles on the graph denote the development stage of the company. The twelve business dimensions are plotted on the graph for the investee company. At every stage, the value for every dimension should lie in the range between the circles for the previous and current stages. Since a company may not have completed all of the current requirements for a particular stage, it is possible that the value for one or more dimensions may lie somewhere within a previous stage. Such a discrepancy indicates that the firm is underdeveloped in some dimensions for the stage at which it purports to be.

Points plotted at the circumference of the circle for a given stage represent the dimensions of greatest importance at that stage. For instance, at the concept stage, the four dimensions that form the axes – the business plan, CEO, cash, and technology – are the most critical. All dimensions should be fully evolved and lie on the outer circle by the time the company becomes an established business.

### ***Objective assessment across twelve dimensions***

Application of the diagnostic assists in ensuring that the Manager is not captured by subjective assessments in two or three dimensions of a company but has an objective assessment across twelve dimensions of each company. Portfolio companies are not expected to demonstrate perfect profiles. Rather, the diagnostic provides a clear assessment of where and how Caltech is able to add value to portfolio companies.

# The Bell-Mason Diagnostic Output Graph



The Bell-Mason Group Inc.  
Systems For Enterprise Development  
Copyright 1992

### ***The Great New Zealand Business Venture: Stimulating Innovative Business Growth in New Zealand***

The Great New Zealand Business Venture is designed to stimulate entrepreneurial activity and to enhance the development of networks in which innovative businesses will thrive. The initiative is based on a proven format which has been successfully implemented by McKinsey in several US and European states in recent years. It represents a high-impact, popular and cost-effective method of mobilising New Zealand's dormant entrepreneurial potential, and will run from early March through until September 2000.

The primary aim of the programme is to build a strong culture of entrepreneurship within New Zealand. Its specific objectives are:

- To create multiple viable new businesses
- To enhance the development of networks of entrepreneurs, professional advisers and venture capitalists focused around the "concept to company" phase.

The initiative is essentially a business plan awards programme in which participants will progress through a three-stage process to complete a full-scale business plan.

A high-profile public launch will be held in each of the three main centres – Auckland, Wellington and Christchurch – in the week beginning 6 March. The competition has three phases:

Phase 1 (commencing 6 March): Preparation of a business idea.

Phase 2 (commencing 8 May): Preparation of a business case (including analysis of the market, production processes, capital requirements and marketing strategy).

Phase 3 (commencing 10 July): Preparation of a detailed business plan.

Coaching and mentoring opportunities will be provided to contestants (free of charge) by many of New Zealand's major service firms. Entry will be open, but there will be a particular emphasis on new technology businesses (for example e-commerce, biotechnology and hi-tech business) with a focus on start-ups and growth phase businesses.

At each phase of the competition a panel of judges (venture capitalists and entrepreneurs) will evaluate entries. Prizes described as "seed capital" will be awarded at the conclusion of each phase with total prize money of \$360,000 available. All participants who complete a phase will be eligible to progress through to the next phase of the competition.

Similar business plan awards programmes overseas have been highly successful in creating viable new businesses and a long-term infrastructure. A month after the first awards programmes in Germany, Switzerland and the Netherlands, 200 new businesses had been formed. The 5-year targets for these businesses are revenues

in excess of NZ\$7 billion and 8,000 jobs. Early indications suggest that the programmes create genuinely new businesses with improved chances of success.

The Great New Zealand Business Venture has been established as a Charitable Trust. John Hood, Vice Chancellor of the University of Auckland, is an advisor to the project. The Chief Executive is Bridget Wickham and she is supported by a core team of prominent New Zealand business people: Andrew Grant, Jon Hartley, Paul Lockey and Scott Perkins.

|                 |  |
|-----------------|--|
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