



Growing Pains: New Zealand Qualitative Evidence on Hurdles to Exporting Growth

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D I S C L A I M E R

The views expressed in this Working Paper are those of the author and do not necessarily reflect the views of the New Zealand Treasury. The paper is presented not as policy, but with a view to inform and stimulate wider debate.

Abstract

This paper surveys qualitative evidence with the aim of identifying consistent issues surrounding the growth of New Zealand firms. The available literature is focussed on exporters and raises the possibility of two “hurdles” to growth for New Zealand firms. The first is the fixed-cost hurdle to entering exporting. The second is the hurdle of establishing the offshore distribution channels required for continued growth. While the evidence for these hurdles is far from conclusive, their existence is consistent with many of the available case studies. The hurdle to ongoing growth may explain why so many promising New Zealand companies are sold to foreign firms in the same industry. Overseas ownership by a firm in the same industry often solves the distribution problems of many small New Zealand firms and allows growth to continue. The outcome of overseas ownership is therefore not necessarily bad for New Zealand.

The case study evidence suggests many plausible causes of these hurdles. These include New Zealand’s small market size and distant location and the fluctuating exchange rate. While the evidence on capital markets is mixed, case studies suggest a possible lack of specialised expertise on the part of New Zealand’s small venture capital industry may also be a hurdle to growth.

JEL CLASSIFICATION

D21 - Firm Behaviour

F14 - Country and Industry Studies of Trade

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Patterns of Firm Growth; Exporting

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Growing Pains: New Zealand Qualitative Evidence on Hurdles to Exporting Growth

1 Introduction

This paper analyses the process of firm growth from small and medium sized enterprises (SMEs) to multi-national enterprises (MNEs). It does so by drawing upon an array of New Zealand qualitative research. New Zealand's relatively small domestic market size means that expansion into international markets is a critical factor for firm growth in the tradable sector. This paper therefore places particular emphasis on the move into exporting.

The benchmark for this investigation is whether New Zealand firms face circumstances *vis-a-vis* growth that are different to those faced by firms overseas. This paper will use the term "hurdles to firm growth" as shorthand for any additional difficulties faced by New Zealand firms over overseas firms.

This paper will begin by looking at recent New Zealand firm growth and exporting. It will then discuss fixed costs and risks associated with the move into exporting, and whether these are likely to have any peculiar impact on New Zealand firms. It will then investigate how New Zealand firms move into export markets, comparing this with overseas models. The purpose of this comparison is to see if there are any systematic differences between the strategies of New Zealand and overseas firms during the move into exporting, which may indicate the existence of hurdles unique to New Zealand. This paper will examine possible causes of these supposed hurdles. The paper concludes with a brief discussion of policy implications.

Conclusions in this paper are drawn entirely from qualitative surveys.

Qualitative research ... covers a wide range of approaches, but by definition, none of these approaches relies on numerical measurements. Such work has tended to focus on one or a small number of cases, to use intensive interviews or depth analysis of historical materials, to be discursive in method, and to be concerned with a rounded or comprehensive account of some event or unit.

King, Keohane & Verba (1994) p.4

Qualitative analysis takes a detailed look at many aspects of the subject under investigation. This involves investigating many non-tangible aspects of a firm, as well as strictly numerical, quantifiable aspects. The additional detail offered by qualitative research necessarily entails using a smaller sample than that used for a quantitative

study. However, this is compensated for by the additional detail that qualitative analysis provides. Qualitative analysis can, if done systematically and thoroughly, be as useful as quantitative analysis¹ (King, Keohane & Verba (1994)). This is particularly the case for identifying the *process* around an issue, rather than simply observing the measured outcome.

I find some indication of two key hurdles to exporting, the actual move into exporting, and an ongoing hurdle to expansion. The first hurdle is the fixed costs and risks of entering into exporting. The ongoing hurdle relates to issues of distribution economies, the difficulties of establishing brands, marketing, distribution networks, and an appropriate range of products for a new country. I argue that these issues are more of a problem for New Zealand firms (than overseas firms) because of three key factors. Firstly New Zealand has a small domestic market and is distant from foreign markets. Secondly there are issues with the ability of a capital market to function effectively in New Zealand's small domestic market. Finally, relatively large fluctuations in the real exchange rate may also be an issue.

2 Background

2.1 New Zealand firm size and survival rates

New Zealand is in the lower end of the OECD distribution in terms of average firm size. This is chiefly due to New Zealand's many small firms (below five employees). The proportion of small firms has also been increasing in the 1990's. The predominance of small firms in New Zealand has raised the question of whether there are hurdles to firm growth in New Zealand.

Comparing survival rates² of New Zealand firms (see Figure 1) with international data (Bartlesman, Scarpetta and Schivardi (2001)) indicates that New Zealand firms survival rates are low although not unusual by world standards. Other countries such as Finland, the United Kingdom and Canada also share survival rates of about 40% after four years of business operation³.

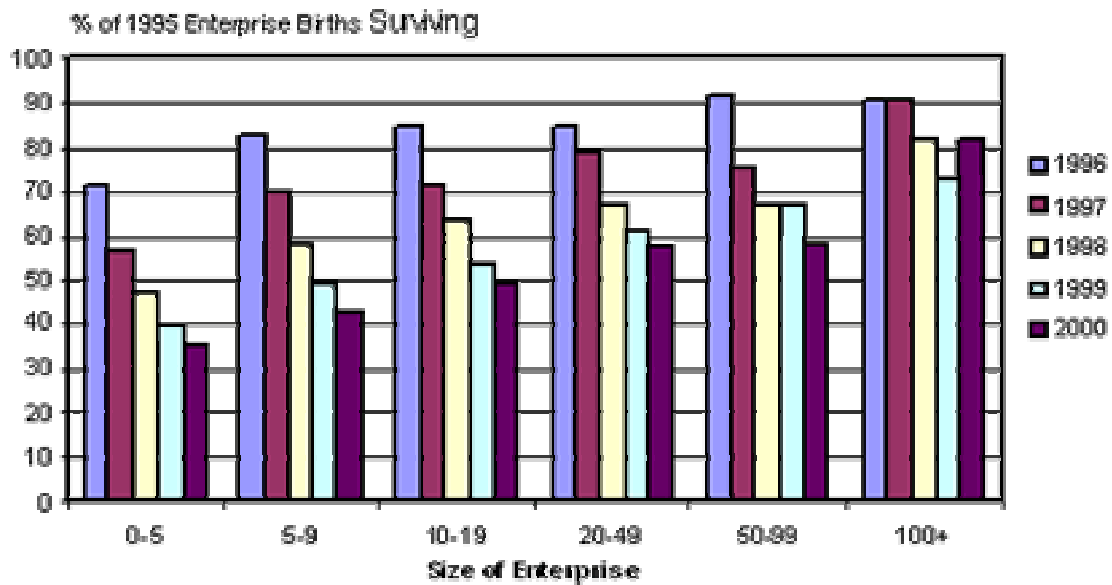
The high proportion of small New Zealand firms does not seem to be caused by unusually low firm survival rates. This implies that the growth rates of firms becomes the most likely cause. If expansion into foreign markets represents a key step towards expansion, then factors influencing the ability of firms to export will have an important influence on the growth process of firms.

¹ Unfortunately this is not usually the case with New Zealand firm related research.

² Survival rates are the percentage of firms that are still in operation a given year after starting up.

³ New Zealand's predominance of small firms must also be taken into consideration. Small firms generally have lower survival rates.

Figure 1: Survival rates of New Zealand firms



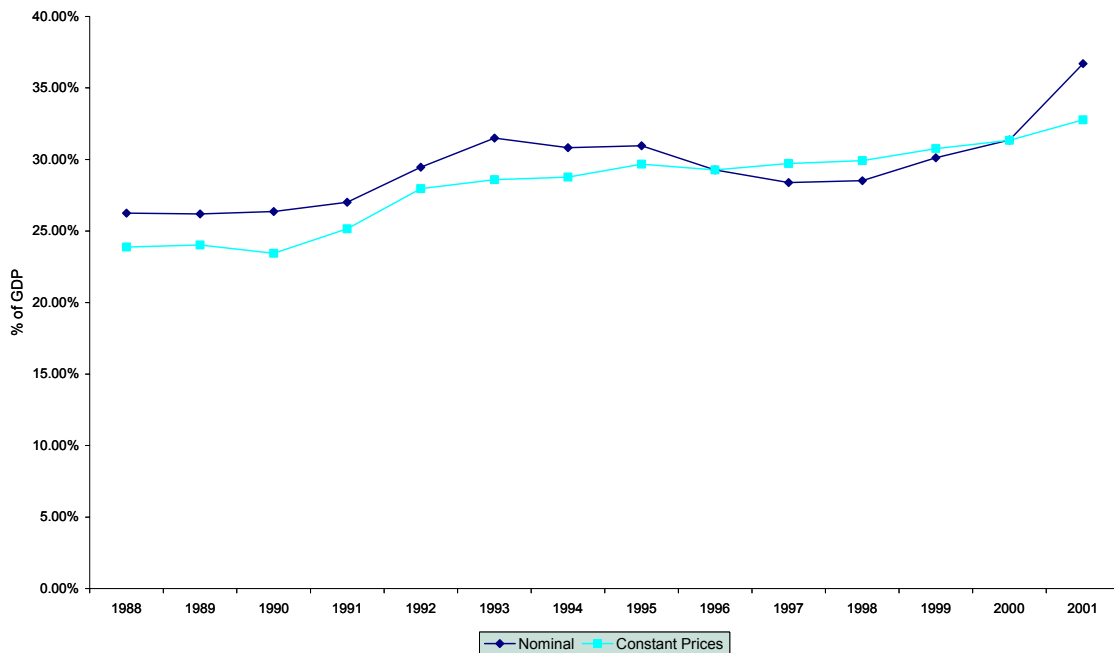
Source: Ministry of Economic Development (2001)

2.2 New Zealand's recent exporting situation

New Zealand nominal value exports of goods and services were 36.7% of nominal GDP in the year ended March 2001. This compares with about 26% of GDP in 1988, and reflects a steady growth in the proportion of exports to GDP since the late 1980's, as illustrated by Figure 2 below. Tradenz and Statistics NZ data indicates that this increase in exporting has come primarily from the very large exporters, rather than small-scale exporters. Much of the increase in exporting since 2000 seems to be due to price effects⁴ (favourable commodity prices and the recent currency depreciation), which is reflected in the difference between nominal and constant price exporting levels.

⁴ Using fixed prices the proportion of exports has only risen from 31.3% to 32.8% - indicating a relatively small volume effect.

Figure 2: New Zealand exports as a percentage of GDP

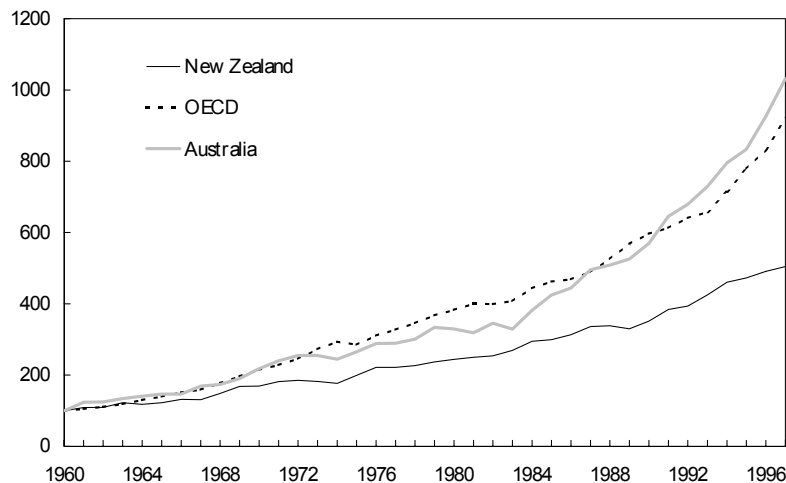


Source: Statistics New Zealand GDP data

Despite these increases, New Zealand's export growth has not matched that of Australia or the rest of the OECD in recent times. Figure 3 below sets out the divergence in performance from 1960 through to the 1990's. Ballingall and Briggs (2001) show that this relatively poor performance may be due to demand being lower in the industries that New Zealand exports traditionally service.

Figure 3 Real export volumes

1990 prices and exchange rates, Index, base 1960 = 100



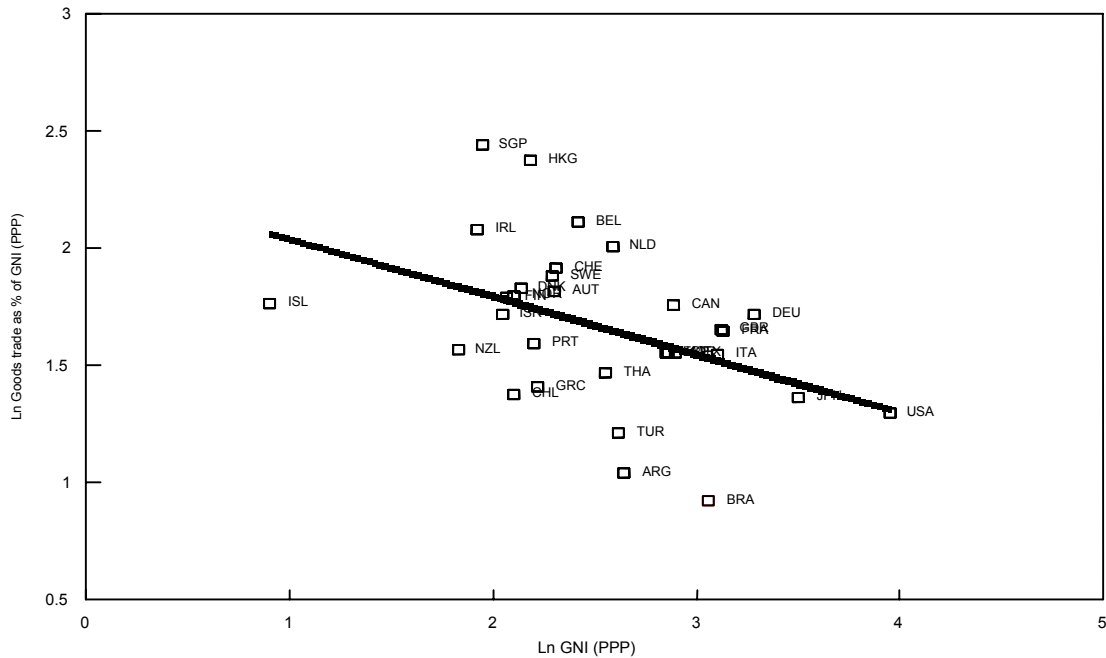
Source: OECD/ Briggs and Ballingall (2001)

How large is New Zealand's share of exports to GDP relative to other countries? There appears to be a relationship between the size of a country and the proportion of GDP that is engaged in international trade. This makes intuitive sense, countries with bigger domestic markets are less likely to need to trade externally.

Figure 4 shows the relationship between the size of a country's economy and the amount of trade (imports and exports) it undertakes. The values have been logged to show a

linear relationship and plotted against Gross National Income⁵ (GNI) on a purchasing power parity (PPP) basis. It shows that smaller economies tend to trade more. Given this apparent relationship, New Zealand's trade share is close to the average. Nevertheless, the better performing small countries tend to have higher trade shares, including Singapore, Hong Kong, Belgium, Ireland and Netherlands.

Figure 4: Relationship between domestic market size and exporting



Source: Walsh (2001)

Despite the rapid increase in the number of New Zealand firms (especially small firms) in the 1990's there is little evidence of increased number of firms participating in exporting. This trend is shown in Table 1, which indicates that the number of exporting businesses as a proportion of total firms and also as a proportion of total manufacturing firms has fallen over the past few years.

⁵ Similar to Gross Domestic Product, but net of profit flows to and from overseas.

Table 1: Proportion of New Zealand firms exporting: 1995-2001

	1995	1996	1997	1998	1999	2000	2001
Total exporting firms	10,207	9,696	9,555	11,094	8,953	8,980	9,306
Total number of firms ⁶	192871	199757	210220	223535	222062	242845	234232
Number of manufacturing firms	19470	19637	19753	20407	19893	21076	20565
Percentage of total firms exporting	5.29%	4.85%	4.55%	4.96%	4.03%	3.70%	3.97%
Percentage of manufacturing firms exporting	52.42%	49.38%	48.37%	54.36%	45.01%	42.61%	45.25%
Firms exporting over \$25m	103	102	109	120	120	136	151
Percentage of firms exporting over \$25m	0.05%	0.05%	0.05%	0.05%	0.05%	0.06%	0.06%
Percentage of manufacturing firms exporting over \$25m ⁷	0.53%	0.52%	0.55%	0.59%	0.60%	0.65%	0.73%
Firms exporting over \$75m	40	36	32	33	35	47	51
Percentage of firms exporting over \$75m	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%
Percentage of manufacturing firms exporting over \$75m	0.21%	0.18%	0.16%	0.16%	0.18%	0.22%	0.25%

Source: Tradenz and Statistics New Zealand

This lack of increase in the number of firms that export is an interesting contrast to the results from surveys indicating an increase in emphasis on exporting by businesses during the 1990's (Campbell-Hunt and Corbett (1996)).

The implication of these statistics is that there has been a growing focus on a small proportion of firms to generate export revenue. This is illustrated in Table 1 which shows the high degree of dependence on a few firms to generate the vast majority of New Zealand exports. In 2001 only 151 firms (0.064% of all firms and less than 1% of manufacturers) exported more than \$25 million of exports, amounting to 78% of exports. At the other end of the scale on average 59% of exporters between 1995-2001 had exports of less than \$50,000. This group is also characterised by high turnover, some 49% of firms in each year were exporting for the first year, and 57% of these did not export in the following year. Larger exporters exhibit a much greater degree of export persistence⁸ and seem to be the source of most of New Zealand's export growth.

Contrast this experience with Australia⁹. Australia has a similar number of exporting firms (4%), however the exporting burden is more evenly spread. Some 3.9% of exporting firms export 76% of Australia's exports, while as we have seen 1.6% of New Zealand exporters export a similar proportion of our exports. Interestingly the growth in Australian exports seems to be coming from firms with less than 20 employees, while exports for the very large companies have fallen.

New Zealand's decreasing proportion of exporters could be a sign of small firms struggling to enter the export arena, which would not be surprising. Internationally and in New Zealand small firms have a far lower propensity to export, as shown by Table 2. This is generally recognised to be because of the fixed costs faced by firms of moving into export markets. The make-up of these fixed costs are discussed later, the important point to note for now is that fixed costs have a disproportionate impact on small firms.

⁶ Based on Business Demographics – only economically significant enterprises (over \$30,000 turnover)

⁷ Assuming that only manufacturing firms export

⁸ The data does give some encouraging signs that this narrow base of large exporters is beginning to widen. The numbers of firms exporting larger amounts (over \$25m and \$75m) have grown in absolute terms and has kept up with the total numbers of firms overall. This indicates that some medium sized firms are growing and expanding their exports.

⁹ All Australian data from the Australian Bureau of Statistics "A Portrait of Australian Exporters" 2000

Table 2: New Zealand average export sales percentages and firm size

Firm Size (employees)	Average export sales as a percentage of total sales
6-10	6%
11-20	7%
21-50	14%
51+	23%

Source: survey of National Bank business clients (they received 409 responses out of 1,500 firms) by Grimes, Holmes and Bowden (2000) page 102.

3 How Do Firms Approach Exporting?

The following sections will explore the issues facing firms as they move into exporting. The first section looks at the fixed costs of moving into exporting. There is some reason to believe that the one-off fixed costs and risks facing New Zealand firms as they move into exporting are comparatively high. The second section shows that the strategies used by some New Zealand firms in entering export markets differ from the international norm. These differences in strategy may indicate differences in the size and nature of hurdles to entering exporting that are faced by New Zealand firms. Whether these hurdles prevent some firms from entering exporting entirely is difficult to tell – it is an area that requires further research.

The third section suggests that New Zealand firms may also face an ongoing hurdle to exporting, preventing them becoming truly global firms. The establishment of truly world-class distribution and marketing networks seems to pose difficulties for most New Zealand firms. It seems to take considerable scale to achieve (which is difficult with a small domestic market), and appears to be beyond the capability of most New Zealand firms, except those involved in resource industries. The absence of large New Zealand multi-national enterprises suggests that this is an issue. Indeed, the weight of evidence for the existence of an ongoing hurdle is reasonably strong.

3.1 The existence of fixed costs of entering export markets

The analysis of Roberts and Tybout (1997), Clerides, Lach and Tybout (1998), Castellani (2001) and Bernard & Jensen (2001) all shows that data on exporting firms is consistent with the existence of fixed costs to entering exporting. Bernard and Jensen (2001) show for instance that US firms are 36% more likely to be exporting tomorrow if they are exporting today. When firms do enter and leave exporting, it tends to be for sustained periods. This is consistent with the presence of fixed entry costs to exporting. They also demonstrate that larger firms are more likely to export, and argue that this is because larger firms find it easier to meet the costs of exporting. Clerides, Lach and Tybout (1998) find similar results for Mexico, Colombia and Morocco, showing that exporting firms have larger capital stocks and that exporters are more likely to continue exporting. Castellani (2001) repeats these findings for Italy. In addition, Roberts and Tybout (1997) find a far higher continuance rate from past exporting experience, making a firm 60% more likely to continue exporting. They add that for Colombia's case the "sunk cost" appears to depreciate very quickly. After two years of not exporting a firm is as equally likely to export as other firms.

The fixed cost model has also been used to explain the existence of "hysteresis" in trade flows. Baldwin and Krugman (1989), and Roberts and Tybout (1997) note that firms often display a delayed reaction in trading to movements in the exchange rate. Their

explanation is that the fixed costs of entering foreign markets means that firms are not willing to incur costs to enter the export market for what they perceive to be a brief period of prosperity before exchange rates rise again. Conversely some firms continue to export in times of high exchange rates – seemingly to avoid needing to repeat the sunk cost to re-enter exporting when the exchange rate falls.

The reason for these fixed costs is still unclear. Roberts and Tybout (1997) speculate that the speed with which the fixed cost investment tends to dissipate suggests that it is intangible (probably information) rather than anything tangible. The consensus view appears to be that “*these [fixed costs] might include the cost of information about demand conditions abroad or costs of establishing a distribution system* (Bernard and Jensen (2001)). Information on overseas demand conditions may seem a fairly innocuous concept, but this information often necessitates product changes or the development of new product ranges. This may be due to foreign quality demands, particular tastes, or even regulatory issues such as product safety and registration.

Qualitative research sheds more light on the source of these fixed costs by looking at the experience of firms. The fixed costs of entering foreign markets can be grouped as follows:

- *Cultural differences* – necessitating market research and resultant alterations to products and marketing strategies. This should not be under-estimated, even New Zealand companies moving into Australia are struck by the differences in this regard.
- *Regulatory costs* – each new market has new tariff levels, non-tariff barriers, product registration, differences in safety standards as well as new tax systems.
- *Setting up distribution, marketing & product support* – this involves an investment in arranging transportation networks, warehousing and retail, as well as establishing and maintaining a brand.

3.1.1 Applications for New Zealand firms

Overseas evidence summarised in Campbell-Hunt and Chetty (2001) suggests that firms tend to focus on their domestic market before they move into exporting. Given the small size of the domestic market, it seems likely that New Zealand firms will therefore tend to be smaller than overseas firms when they start exporting. It is also reasonable to expect that they will need to go global at an earlier stage of development than overseas firms. For small firms the fixed costs of finding markets, adjusting products, marketing, establishing distribution channels, and making mistakes are likely to be more serious than they are for larger firms.

There is plenty of anecdotal New Zealand evidence to support the existence of fixed costs related to moving into exporting. One firm in the recent Infometrics Manufacturing Exports survey (Infometrics 2002) took four years of intensive effort to sell their first product in the United States. A total re-design of their product range was required to make them applicable and appealing in the American market. Another firm included in this survey spent 15 years and \$NZ5 million on establishing a distribution network in the United States. Even launching a new product can be expensive – one firm spent \$NZ1 million (on top of all the product development costs) simply to launch a new product in the United States market.

Example: Peterson Portable Sawing

Peterson Portable Sawing Systems Ltd designs and manufactures portable sawmills in New Zealand, and exports these mills to many countries around the world (as well as producing for the New Zealand market). Peterson Portable Sawing has found that each new market they enter has unique portable milling requirements. The company spends six to 18 months researching these new markets and designing products that suit specific local conditions.

Source; NZ Business Dec (2001), p13

The fixed costs associated with the move into exporting, in combination with the small size of New Zealand firms when they begin exporting, could be enough to deter some small firms from making the step.

3.1.2 Risks of the Move into Exporting

Even once overseas orders are secured, the lure of exporting is not without difficulties. For many firms exporting is the only way to expand, however for small firms the rapid expansion required can be a difficult undertaking.

Foreign buyers may also incur fixed costs in switching to a new supplier from a new country. To justify the up front costs of using new suppliers, purchasers (or intermediaries) will often require orders of a reasonable size from the New Zealand firm. Given that the size of overseas markets are far bigger than the domestic market, often these orders are many times larger than a New Zealand firm is used to supplying. This is a consistent message from New Zealand firms moving into exporting.

Campbell-Hunt and Chetty (2001) look at the difficulties of this exporting transition. They emphasise that even once an export order is obtained, the key issue that a firm often faces is a rapid (and proportionately large) capacity increase to cope with the size of the order. This size increase puts pressure simultaneously on many of the company's key areas of competitiveness. Human resources is a key area as there is a need to rapidly hire and train a large amount of people while maintaining the company culture. Firm leadership can be placed under strain – managing a rapid growth spurt challenges the skills of the typical small business owner (see the Gallagher example below). To compensate owners either require bountiful energy or a lot of support. The reputation of the firm can be placed at risk during this difficult phase, mistakes at an early stage can cause reputation damage (reputation is vital in overseas markets where distributors want reliable supply). Also production often requires scaling up and this in turn can drain the firm's working capital.

This expansion is likely to be proportionately larger for New Zealand firms, and as such the impact on the firms is likely to be greater. Qualitative evidence suggests that the impact of this rapid expansion should not be underestimated. Many firms put their competitive advantage down to a package of key subtle elements, for example, learning culture, service, dynamic leadership and devoted employees. While rapid expansion is not impossible (obviously many companies have successfully managed the process), smaller firms are likely to find these issues more difficult to deal with. As such, some or all of the company's advantages could easily be destroyed, leaving the firm stripped of the key competencies that it originally displayed. Slow and steadier expansion is more likely to leave the firms competencies intact, however it is difficult to achieve as exporting begins.

Having a more tangible competitive advantage, namely a world-beating product, may improve the firm's chances of surviving this rapid expansion. This is consistent with the

work of Campbell-Hunt and CANZ¹⁰ (most global firms they surveyed had an innovative product).

Example: Scott Technology

Scott Technology specialises exclusively in the design and manufacture of large-scale automation systems for the major domestic appliance industries of the world. Scott Technology's first export order outside Australasia was 20 times greater than anything the firm had yet completed, and represented several years' worth of revenue. This order stretched the company beyond its current capability. As a result the order was delivered one year late. Fortunately this did not damage their reputation over the long term.

Source; Campbell-Hunt/ CANZ (2001)

Example: New Zealand's fastest growing exporters

The New Zealand Business Survey shows nine exporters with export revenues growing at over an average of 100% for the past three years. Some of these are from a low base. Others, such as Frucor Beverages (now owned by the French company Danone), have been around for much longer (since 1965) yet still shown export growth in excess of 500% for the past three years, propelling it into the top 100 New Zealand exporters in terms of value exported. In many ways this kind of growth should not be surprising coming from a small domestic market. However, the impact of this growth on a firm in terms of organisational change is still large.

Source; NZ Business Dec (2001), p24

Example: Gallagher

Gallagher made some key innovations in the area of electric fencing – in 1969 it developed a commercially viable electric fence energiser. Using DFC finance Bill Gallagher moved quickly to exploit his company's innovations in fencing. He built a European distribution network (of independent dealers) and negotiated standards access to all major European markets in 3-4 years. This period of effort provided the foundation for Gallagher's expansion. Over the next few years the company moved out of general agricultural machinery to focus on the expanding fence business.

Source; Campbell-Hunt/ CANZ (2001)

For some firms the risks of this rapid expansion are enough to deter them from reaping the full benefits of their innovation. Despite a world-beating product they take a more gradual approach to exporting expansion¹¹.

¹⁰ CANZ – Competitive Advantage New Zealand

¹¹ Such decisions may naturally be influenced by a culture that has objectives other than firm growth.

Example: PEC

PEC is a Marton based company (now part of the Advantage Group), which produces point of sale systems for petrol retailers, as well as electronic petrol pumps and card security. PEC was the first company in the world to develop an electronically controlled petrol pump. PEC Management assessed the risks in taking this world beating innovation to the global market. The CEO knew that it meant focussing the company's product range and placing the company under stress due to the rapid expansion. PEC chose to avoid going global, instead developing its whole product range on a purely regional scale. This strategy put their first mover advantage in their innovative product market at risk.

Source; Campbell-Hunt/ CANZ (2001)

3.1.3 Impact of Fixed Costs on New Zealand Firms' Export Strategies

The export strategies of New Zealand firms *vis a vis* international firms can give some clue to whether these fixed costs have a more significant impact on New Zealand firms.

The most established international model of exporting is one of gradualism, known as the "stages" model. This model has been developed over several international studies, and is summarised in Campbell-Hunt and Chetty (2001). Firms tend to begin by gradually expanding by exporting to neighbouring and culturally similar countries, initially using agents before developing direct sales representation (especially if the firm is small). Production is focussed at home until international scale is achieved. Production then begins to move offshore. Product-diversified firms have a wider global scope, as they tend to have greater resources and can leverage economies of scope. Focus on innovation increases with internationalisation, but falls with product diversity.

Some interesting work has come from Campbell-Hunt and CANZ (2001) on how New Zealand firms move into exporting. This work shows some differences between strategies used by New Zealand firms and the standard stages model of exporting. The existence of different strategies is consistent with the different circumstances faced by NZ firms, as discussed above. Campbell-Hunt and CANZ (2001) examined the strategies developed by 10 successful exporting firms. Interestingly they found that the firms with a greater exporting focus displayed some similar characteristics. These companies (dubbed "global leaders", including Gallagher Group, Tait Electronics, Svedala Barmac and Scott Technology), all share similar characteristics despite their different fields.

The "global leader" firms all focus their resources on one product during the move overseas. This directly contradicts the accepted international norms where more product diversified firms are more internationally focussed. In a situation of fixed cost hurdles to exporting however, this focussed strategy makes sense. Focussing limited resources on exporting one product makes the fixed cost hurdle easier to overcome, while larger overseas firms can afford to move offshore with a diversified product range.

The "global leaders" utilise indirect means of market representation. In contrast the stages model suggests that the more international companies will move into providing their own distribution networks. The high fixed costs of setting up distribution channels (especially with only one niche product) makes this strategy rational in the New Zealand context. As will be argued in the next section this strategy can have drawbacks over time if the firm is seeking ongoing expansion.

Finally all the firms in this group have an innovative niche product. Indeed, New Zealand manufactured exports are characterised by a niche products. Again, this niche and

innovation focus is understandable given the issues facing New Zealand firms. Innovative and niche products are easier to distribute (often customers approach the producers), and tend to have higher margins. These higher margins make the fixed cost hurdles easier to overcome. Niche industries are also by nature restricted in production scale, and hence New Zealand firms find it easier to compete on cost. Given the limited product demand in these industries however New Zealand firms often supply the world from a New Zealand manufacturing base.

The work of Campbell-Hunt and CANZ (2001) demonstrates that the strategies of global leaders are often conscious decisions made by companies to get around the hurdle of fixed costs and risks in entering exporting. The global leader strategy differs from that set out in standard international exporting firm theory, however this strategy seems rational in the context faced by New Zealand firms. Unfortunately, the sample used in the Campbell Hunt and CANZ study was not representative of firms facing the move into exporting, and it is difficult to generalise these results. Clearly, this is by no means the only strategy that firms use. However, it is a useful illustration of how New Zealand firms adapt to seemingly unique hurdles.

There are other examples of strategies used by New Zealand firms to reduce the fixed costs of the move into exporting. As an extension to the use of innovative niche products, some companies specialise in large customised products for individual customers. This overcomes most cultural, regulatory and distribution issues, because only a handful of customers are needed and they sometimes approach the producers directly (the classic “stumbling into exporting” story). Scott Technology and the boat building industry are good examples of this.

A selection of firms overcome some of the distribution and marketing costs of exporting by carefully targeting a few large specialised purchasers. These firms may be supplying intermediate goods to overseas producers, or even final goods to be branded by overseas firms. This strategy still has distribution issues (in terms of transporting the product) but finding customers is relatively easy. However, the company is left very vulnerable to the whim of this one customer. They can also lose the ability to develop their own brand overseas.

3.1.4 Summary

There is international evidence of fixed costs and risks facing firms in the move into exporting. These costs are mainly informational in nature – developing local knowledge about tastes and regulations and investing in distribution, marketing and branding.

Logically, these costs and risks should have a proportionately bigger impact on small firms. Given the small size of New Zealand’s domestic market, it is reasonable to expect many firms to be relatively small when they begin exporting. As such, there is a reasonable premise that New Zealand firms face comparatively high hurdles to entering exporting.

Whether such hurdles do exist, and exactly how these fixed costs and risks impinge on New Zealand firms is difficult to tell without systematic research. There is however some circumstantial evidence of comparatively high hurdles. The strategies of the New Zealand firms analysed by the available literature are consistent with firms attempting to overcome hurdles to entering exporting.

3.2 Is There a Hurdle to Ongoing Export Growth?

Much of the information for this section has come from the Infometrics Manufacturing Export Survey. Over the decade that the Infometrics survey has been running, it has

accumulated information on the issues facing a selection of New Zealand non-resource based¹² manufacturing exporters. Around thirty firms have been interviewed in this survey every two years since 1991. The sample group has changed over the decade of the surveys, and in the latest survey 16 firms were interviewed for the fifth or sixth time. The survey is not a random sample of New Zealand exporters. Firms chosen depend on the willingness of management to discuss issues surrounding their business, as well as changes in the industry composition over the decade.

Despite these limitations, the survey covers a considerable proportion of New Zealand's non-resource based exports by volume. The thirty firms studied in the 2002 study accounted for a third of the increase in exports in non-resource based manufacturing sectors between 1998 and 2001. The firms surveyed are certainly not a random sample, but make up a considerable proportion of New Zealand's non-resource manufacturing export growth.

The firms in the Infometrics Manufacturing Export Survey are all established exporters looking to grow their exports, and therefore their experiences are relevant to the issue of an ongoing hurdle to export growth. Many experience similar problems, while others provide useful exceptions. However due to reasons of commercial confidentiality, case studies in this section are limited to publicly available knowledge. Often the full extent of examples behind each concept cannot be disclosed.

A great deal of attention has been drawn to the seeming inability of New Zealand firms to continue growing once they reach international SME status (Yeabsley 2001). The emerging question from the case study literature is whether there are ongoing hurdles to internationalisation. Once established as an international SME, only resource-based New Zealand firms seem to be able to continue growing indefinitely, eventually reaching Multinational Enterprise (MNE) status.

Not all firms want to achieve MNE status, and MNEs are not appropriate in all industries. The lack of non-resourced based MNEs is a symptom of a potential issue, rather than an issue unto itself. This section does not cast any normative judgement on whether New Zealand needs more MNEs. The issue under investigation is whether there are any unique difficulties facing New Zealand firms from ongoing export growth.

According to Cartwright (1998), the defining factor of the MNE is that it "manages value-producing activities in several countries". Using this definition, Cartwright (1998) claims that all New Zealand MNEs are resource based¹³. These include Fonterra, Fletcher Challenge (no longer in existence, but the forest and building arms are still operating under New Zealand ownership), firms in the meat industry and orchard fruit (Zespri and ENZA). Lion Nathan was also emerging as another MNE prior to its sale to Japanese interests.

In actuality, there are several other examples of New Zealand companies that meet Cartwright's criteria (i.e. managing foreign value adding activities such as manufacturing) but are not included in Cartwright's list. None of these excluded firms is very large in comparison to the resource firms, suggesting that they have been omitted because of lack of materiality. If we introduce materiality as another criteria Cartwright's characterisation holds. The New Zealand Stock Exchange confirms that most big New Zealand firms operating internationally are resource based. As shown by Table 3, only one of the top 20 firms by market capitalisation is a non-resource based exporter. Also, Figure 5 shows that the majority of exports are resource based (mainly in the form of food manufactures).

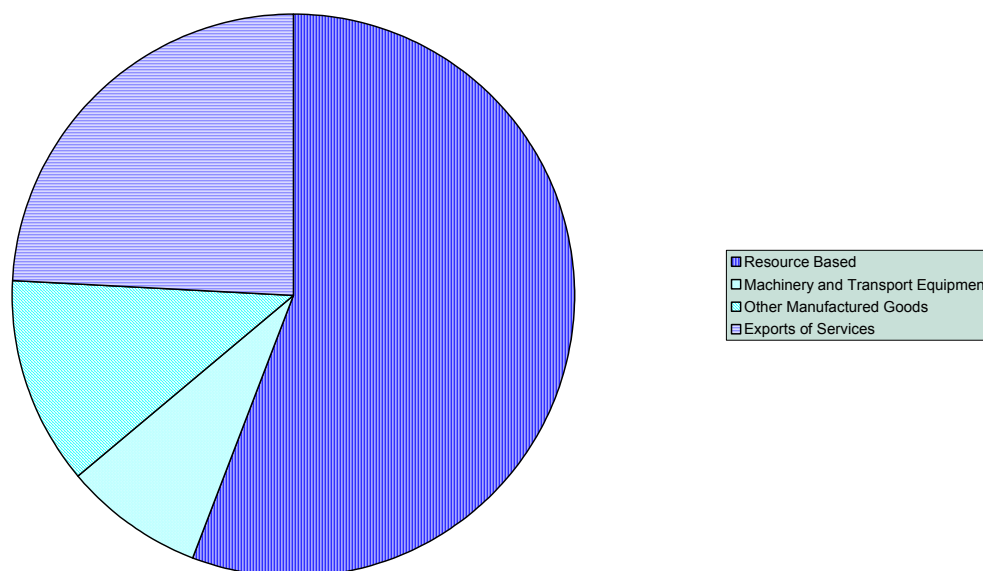
¹² Defined as Harmonised System (HS) categories 30-96 excluding wood and wood products, casein, wool, hides and skins, gold and aluminium

¹³ In other words, are dependent on New Zealand's comparative advantage in agriculture, forestry and fishing.

Table 3: Top 20 companies on New Zealand stock exchange by capitalisation

Company name	Market Capitalisation (\$000)
Telecom Corporation of New Zealand Ltd	8461968
Fletcher Challenge Energy Shares	3001171
Carter Holt Harvey Ltd	2847977
Warehouse Group Ltd, The	1821446
Contact Energy Ltd	1529630
Auckland International Airport Ltd	1318800
Independent Newspapers Ltd	1244601
UnitedNetworks Ltd	1204181
Sky Network Television Ltd	1157327
Natural Gas Corporation Holdings Ltd	1154122
Baycorp Holdings Ltd	1010459
Fisher & Paykel Industries Ltd	942527
Montana Group (NZ) Ltd	847909
Air New Zealand Ltd B Ordinary Shares	834395
WestpacTrust Investments Ltd	832218
Sky City Ltd	801422
Tower Ltd	771119
AMP Investments' World Index Fund	739293
Fletcher Challenge Building Shares	675300
Air New Zealand Ltd A Ordinary Shares	605987

Figure 5: Composition of New Zealand's exports¹⁴



Source Statistics New Zealand 2001

The key to the success of the resource-based exporters appears to be based partly on the exploitation of New Zealand's comparative advantage. More importantly however these companies had the scale to invest and create a market presence overseas, leverage linkages with consumers and suppliers and customise/ differentiate their products accordingly. Some of these resource industries have done well at diversifying markets and altering products to match¹⁵.

It appears that by beginning with bulk products (which originally require little differentiation, distribution or marketing effort) these firms amassed the scale and cashflow necessary to continue their expansion and become truly global. Links to the United Kingdom also provided useful cashflow for some of our resource industries. New Zealand's comparative cost advantage in agriculture gave these firms an immediate entry into a mass market. This allowed a smoother growth path by providing the accumulation of cashflow and scale. Once a firm has built up some scale this can be used to finance moves into increasingly differentiated markets that require higher investment in distribution and marketing.

Many non-resource based firms put down difficulties in ongoing expansion to a lack of scale. Campbell-Hunt and CANZ (2001) state *"firms with a small domestic market have less chance of achieving economies of scale in research and development, manufacturing and marketing."* As will be shown in the following sections, marketing and distribution seems to be particularly important.

¹⁴ Definition of "Resource Based" Exports includes Dairy Products, Meat and Meat Products, Seafood, Other Food and Beverages, Wood and Wood Products & Crude Materials.

¹⁵ In 1998, the Dairy Board had some 70% of its exports in differentiated products, some of which "are based on highly sophisticated manufacturing" (Cartwright 1998). This may be one of the causes of the dairy industry overtaking the meat industry in exporting terms.

Example: Nokia - The Importance of Scale?

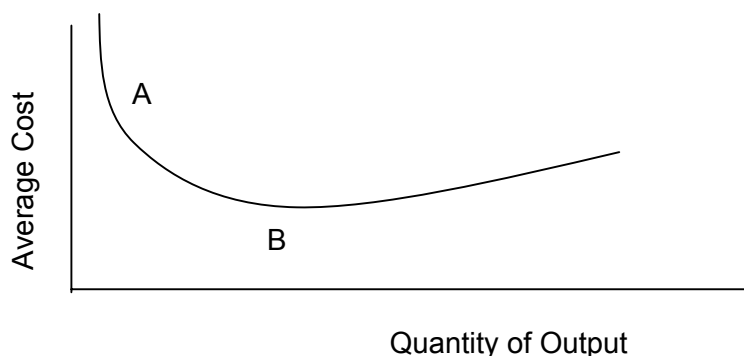
Nokia was originally a forestry company that grew from Finland's comparative advantage in growing trees. Its established size allowed it to finance considerable investment in mobile communications R&D in the 1960's and 1970's. At this time Nokia gained a competitive advantage that it has not since relinquished. Given this investment and its initial size endowment, Nokia was well placed to meet the global boom in telecommunications when it arrived.

Source; Frame (2000)

3.2.1 Production Economies

Internal economies of scale relate to the firm's production process. A stylised representation of these economies of scale is shown on Figure 6 below. The average cost line on Figure 6 demonstrates that for a given fixed capital investment a firm's average costs will generally fall as production increases to the optimal capacity of the capital employed. This is because the fixed costs of the capital investment are being spread over a greater output. The least cost capacity is shown by Point B on Figure 6. In New Zealand's case the small domestic market may not offer firms enough opportunity to expand production to the optimal capacity of the firm – even with minimal capital employed. As such, New Zealand firms serving the domestic market may be stuck in the high cost position of Point A in Figure 6. This may make it relatively unprofitable to set up business in certain industries, unless immediate overseas expansion is possible.

Figure 6: A Theoretical Example of Sub-Scale Production Economies



Evidence of firms trapped under minimum efficient scale is difficult to find. This may be because the concept has vastly different applications in each industry, or because it is simply untrue. Production technologies in each industry are constantly changing and shifting as production technologies and product differentiation evolves. This makes any practical application of the theoretical concept difficult, and has prevented qualitative or quantitative measurement in all but the largest standardised industries (such as Utilities).

Many New Zealand firms avoid the issue of minimum efficient scale by focussing on differentiation, customisation or targeting niche markets. This means that production economies may have little importance for New Zealand, except in encouraging firms to target certain niche industries over mass markets.

3.2.2 Distribution Economies

The proposition behind the existence of distribution economies is that large companies find it easier to set up distribution channels and market their products. Distribution

economies have a broad definition that is expanded more fully in the following paragraphs, including an explanation of why scale is important in these areas.

The actual physical distribution system is important, and includes transportation, warehousing and either owning or having links with retail outlets. Scale improves time to market for products and can also reduce the unit costs of transport and warehousing. At the retailing end, scale can increase the prominence of goods in retail outlets.

The concept of distribution economies also includes the costs of marketing products to buyers and the creation of channels for feedback on customer preferences. Preparing a line of products for a new market usually involves an up-front and ongoing investment in products based on the preferences of locals, which large firms can afford more easily. Creating and maintaining a market presence also involves fixed costs, which are more easily borne by large firms.

In tandem with marketing is the issue of establishing brand and reputation. This is important to consumers and many large overseas customers who are seeking secure and trustworthy suppliers. Large-scale firms instantly have greater credibility and can afford to make the fixed cost investment in brand promotion.

In some markets providing a range of products is also important. Many MNEs offer a wide range of products. This gives three advantages - a complete solution to clients, greater exposure for the brand, and it also allows the distribution costs to be spread over a wider range of products. Scale also appears to aid ongoing investment in R&D to create new products.

All of these factors require investment, often before any return is achieved. Firms interviewed in the Infometrics survey report spending several years and millions of dollars dealing with these issues. Such investment requires significant retained earnings, debt, or outside equity. As will be shown in the next section, for many firms the easiest way of achieving all of these things is by becoming part of a foreign MNE.

As has been shown in the previous section, New Zealand firms entering exporting use different strategies to get around the fixed costs of moving into exporting (including producing niche products, using independent distributors, and focussing on one product). However, these approaches are of limited value in building an MNE. Focussing resources on one product prevents firms developing a broad product range to offer customers. Similarly, niche markets are quickly satisfied and firms must look for related applications of their technology (or completely new industries) to continue expansion. The use of distributors by New Zealand firms has two problems. Independent distributors do not focus on the firm's product, and also have relatively high margins, making only the most profitable niche products are worth selling through these channels. Selling to one or a few large overseas firms can also be risky as the loss of one customer has a huge impact on the business. Large overseas companies also often use their own brand on the final product, preventing the New Zealand firm from developing a brand identity overseas. Brand development appears to be important for becoming an MNE.

To become continue growing New Zealand firms need to build brands and distribution systems so that they can effectively move into mass product markets. However, it is difficult to invest in such systems and brands without significant revenue. Capital markets can help this process, but they are likely to under-invest until the potential of a certain product or brand is proven. As a result, New Zealand firms find ongoing growth difficult. The next section will explore the ongoing growth strategies of non-resource based New Zealand firms. This will show how many firms form their strategy around overcoming the hurdle of achieving distribution economies.

3.2.3 Production or Distribution Economies?

Which has the strongest impact, production or distribution economies? In many ways, this is a chicken and egg question, and as production economies may prevent some products being made, counterfactuals are difficult to determine. However, the key observable issue is the ability to sell a product, rather than make it. Distribution economies seem to be more important.

Infometrics (1999) notes that some New Zealand firms are contracting out manufacturing entirely (usually overseas) so that they can concentrate on product development, distribution and marketing. The report argues that this is an issue of task specialisation (i.e. management wanting to focus on the most important part of the business), rather than simply cost cutting. The key exception to this is in low-skilled, labour-intensive industries where lower labour costs (again, rather than scale *per se*) probably are the key driver of manufacturing shifting overseas.

The ongoing hurdle facing New Zealand firms does not appear to be caused by traditional production economies.

“New Zealand manufacturing costs are relatively low and there is no reason why we cannot build production lines to world scale for particular products... Distribution is where real economies of scale exist, but our view is that few New Zealand companies have the sales volumes to capitalise on the true potential of distribution and marketing companies”.

Infometrics (1999)

New Zealand does in fact have world scale production facilities in certain industries. In looking at the case-study evidence (as in the next section) it seems that distribution economies are a hurdle to ongoing growth.

3.3 How Do Firms Deal With The Hurdle to Ongoing Expansion?

By examining the strategies of New Zealand firms attempting ongoing expansion we can get a sense of the issues they are facing. The striking theme coming out of surveys and case studies is how, for many firms, distribution economies are a key element to further expansion. For most firms it is a hurdle that is too high to hurdle with many firms seeking foreign owners or partners to leverage their brands and distribution networks. Some firms go it alone and pursue both organic expansion or expansion by acquisition. New Zealand has some famous examples of failure in this area, but there are also a handful of firms that have worked very hard at overcoming this hurdle and could in the future experience uninterrupted growth – perhaps even becoming New Zealand’s next generation of MNEs.

Regardless of the firm’s strategy, all New Zealand firms aiming to be MNEs grapple with the issues of distribution economies. There are five key strategies used by New Zealand firms to deal with this ongoing hurdle, including organic growth & acquisition of distribution businesses, international alliances with MNEs, local alliances, or “clustering”, licensing the production and distribution of new products to overseas firms and “merging” or more likely being bought out by a foreign MNE.

3.3.1 Organic Growth & Acquisition

The acquisition strategies of New Zealand firms hint at the central importance of distribution economies. The Infometrics study (1999) states *“most common successful acquisitions appear to be the purchase of relatively small foreign distribution and retail companies.”* This allows companies to expand their overseas sales. However the net impact of this on expansion of exports is small. SMEs do not have the financial clout to purchase significant distribution companies. No firms outside of the commodity producers have managed to achieve MNE status through organic growth and acquisition to date, and it is likely to take considerable time and effort to do. Foreign acquisitions may also be risky for New Zealand firms in some industries, as foreign operations may be large in comparison with their home base.

That said, there are some signs of high performing New Zealand firms emerging with effective distribution systems (sometimes world class - largely helped by sophisticated information technology). This “new generation” of firms (while still SMEs) have recognised the importance of distribution economies and made considerable investments in their brands and distribution systems. These firms now need to push more products through these systems to truly achieve world-class scale. If these firms are successful, they would show that this hurdle to ongoing expansion can be overcome. They may also provide vital skills and motivation for New Zealand firms wishing to emulate their success.

3.3.2 International Alliances

A few firms leverage international alliances to continue expansion. Again, the driving motivation for such alliances is product development, distribution, and marketing. The most difficult part of this strategy is building these alliances. Courting prospective allies can be expensive, risky and time consuming. The greatest risk of this approach is in the information exchange with prospective allies. It is not unusual for prospective allies to suddenly become prospective owners, with discussions of partnership turning into discussions of takeover bids. Once successfully established however, the alliance approach is a promising strategy. It allows the use of other firms’ distribution channels and brands without loss of control.

Example: Montana

Montana’s international strategy is a good example of leveraging international alliances. They have used overseas brands (Deutz and Cordier) to increase sales, and have entered joint alliances for research and development. Montana have even made use of European designers to make their labels appealing to the foreign eye - helping to overcome some of the informational difficulties of the distance from consumers.

Source: Campbell-Hunt and CANZ (2001)

3.3.3 Clustering

A third strategy for ongoing growth is the clustering approach. Clusters are (based on the Porter definition) geographically grouped firms in related industries. They are sometimes used as a way of pooling finance, networks and expertise to obtain distribution economies.

Example: Wellington Media Cluster

Creative Capital is a consortium of over 30 Wellington based companies specialising in various aspects of information presentation and entertainment. Creative Capital has secured \$1million worth of museum exhibition work in Singapore. The group worked together to make a bid to re-develop the national museum in Singapore. When they failed to win this contract, they were offered a smaller project as a "consolation prize".

"While we are happily accepting these "smaller" contracts, our eye continues to remain on the big prize - entire museum developments. We are currently pursuing seven of these projects in both Singapore and Hong Kong." say Emily Loughnan (co-chair and Click Suite director).

Source: http://www.smartwellington.co.nz/smart_news/pd_2_x.asp?ID=163

Example: Jemco

The Jemco story is an example of many of the issues that pertain to distribution economies. It is also an interesting example of clustering to overcome those issues.

Four oyster companies had all tried to enter the Asian market and had failed. Despite the possibilities available in the Asian market, New Zealand business commonly struggle to establish footholds. This may be related to cultural difference, and often requires the ability (and finance) to learn from mistakes. These four oyster producing companies (representing 70% of New Zealand's Pacific oyster production) and marketing company CSI Seafood formed a joint venture in 1999 called Jemco. The group invested in the name, logo and colours for its key product – a frozen half-shell oyster for raw consumption. This strategy has proven to be very successful. The group has had average annual sales growth of 175% for the past three years and is predicting similar growth for the future.

Source: NZ Business (Dec 2001)

There is very little evidence on the existence or effectiveness of clusters in the New Zealand context. One question that is often raised is whether increased clustering could benefit New Zealand SMEs, but that our individualistic culture hinders their formation.

3.3.4 Licensing the production and distribution of new products to overseas firms

Some firms have very recently started using licensing to allow overseas firms to produce and distribute their products. This means that ownership of the innovation is retained in New Zealand, while overcoming problems with production and distribution. Whether this allows for more of the economic rents of the innovation to be captured compared with selling the idea completely depends on details of the deal.

The approach is not completely flawless however. Licensing deals are complicated, and involve some fixed costs in their formation. They also rely on the firm having a patentable form of competitive advantage. This is not possible for many subtler innovations, or for firms that compete on areas other than product innovation.

Example: Formway

Formway designs and manufactures office furniture. In 2000, Bretford Manufacturing began selling Formway furniture under license in the US market.

Source: <http://www.formway.co.nz/us/formway.html>

3.3.5 Selling To Overseas Purchasers

The final strategy of selling to overseas purchasers may help explain the pattern of New Zealand firms being sold on the threshold of becoming global firms.

“We suspect that the reason why a number of successful New Zealand manufacturing companies have ended up being foreign owned is because the new owners have real distribution and marketing clout that allow local plants to survive and expand.”

Infometrics (1999)

This sentiment is echoed by Cartwright (1998) who claims that foreign MNEs sometimes purchase New Zealand firms to “*nurture the capabilities in New Zealand and to increase productivity by linking these firms to the offshore units and channels of the MNE.*” The importance of distribution economies as a motivation for sale to overseas buyers is echoed in many firm based examples.

Example: Interlock

Interlock manufactures and distributes window and door security hardware in New Zealand, and exports to Japan, UK and the US. Interlock has sales of NZ\$ 60 million, and more than 50% of sales are exported. It employs around 420 people.

On 01 November 2001, the shareholders sold the trading assets of Interlock Limited to Assa Abloy. The existing management team and employees continue to trade as Interlock Group. The change in ownership opens up many international marketing opportunities within the group.

The Assa Abloy Group is the world's leading manufacturer and supplier of locking solutions. Current sales for the Group are in excess of SEK 20 billion (approximately US \$2 billion) and the number of employees is more than 25,000.

Interlock sees its strength in its innovative product and production technologies, which will contribute to “*Assa Abloy’s philosophies of cross learning, benchmarking and cross-selling*”. In short, this move seems to be to the joint benefit of both companies in terms of sales growth and cross fertilisation of ideas.

Sources; <http://www.interlock.co.nz/about/index.html> and <http://www.bit.se/bitonline/2001/09/28/20010928BIT00400/09280040.htm>

Example: Andrew NZ (formerly Deltec)

Deltec provided mobile phone network operators with base station antennas. The firm's key innovation was the Teletilt™ product range, which could be remotely reconfigured to handle changing network demand. In 2000, Deltec was named New Zealand's Hi-Tech Growth Company of the Year and the winner of New Zealand's Supreme Hi-Tech Award. On July 20, 2001 the United States company Andrew Corporation acquired Deltec, mainly to acquire the Teletilt™ innovation. Andrew Corporation's presence in Asia and Australasia now includes manufacturing facilities in Australia, China, and New Zealand, and a network of sales offices in Australia, China, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, Singapore, and Taiwan. Worldwide, the company now has 72 locations in 28 countries.

"The Teletilt™ range perfectly complements our existing... portfolio. We will develop the Wellington facility into a center of excellence for advanced antenna systems that complements our existing antenna products and enhances our strong global reach." said Jim Giacobazzi, Andrew Corp's Vice President.

"Andrew has the global scale and reach to take Teletilt™ technology and use it to take a significant share of the global mobile telecommunications market," said former Deltec CEO Jim Donovan.

Source: <http://www.deltec.co.nz/>

Example: PDL

PDL develops and produces electrical products. In the year to 31 March 2001 it had revenue of \$351 million and a profit of \$2.3 million. In 2001 it was bought out by Schneider Electric. The Stewart family were majority shareholders of PDL. Former CEO Mark Stewart said that the family were determined to see PDL become a successful international company. *"Being part of the Schneider group will provide PDL with many new opportunities that would not be possible in this increasingly globalised world if the Company were to power on alone."*

Schneider assured the sellers that they would continue to develop PDL and accelerate management's plan for increased distribution by providing access for the PDL's products to Schneider's sales and distribution resources.

Schneider Electric is a leading global participant in the low and middle voltage electrical markets as well as in industrial controls and automation. It has sales of Euro 9.7 billion (NZ\$19.6 billion) and a sharemarket capitalisation of Euro 10.3 billion (NZ\$20.8 billion).

Source: <http://www.pdl.co.nz/>

Once exposed to the distribution networks, brand and credibility that come from being part of a large MNE, New Zealand firms often seem to expand their sales. This allows for production increases, greater exploitation of scale (where applicable) and greater certainty for the firm's finances. Depending on the buyer, there also may be greater access to capital. In short, the sale of a firm to a foreign MNE can be a strongly positive experience for the firm.

Example: Svedala Barmac

The New Zealand firm Barmac has manufactured a revolutionary rock crusher since the 1970's. By the 1980's the company was making some progress in the American export market. However the volatility in sales left it with financial problems in 1989. The Swedish company Svedala stepped in to buy the Matamata based firm. Since then the company has focussed on producing and servicing the Barmac rock crusher, while leveraging the distribution agents and retail channels of its parent firm. This produced a decade of uninterrupted growth in the 1990's. The new parent company was also a major source of capital in the early 1990's, allowing considerable expansion.

Source; Campbell-Hunt and CANZ (2001)

No evidence exists that conclusively links type of ownership to business success. However the case studies from the Infometrics survey show that type of ownership can in some circumstances play a critical part in a company's ongoing expansion. Most importantly ownership needs to be aligned with the company's strategy.

Many New Zealand firms are created and grown by owner operators. This is often appropriate at the outset of a firm, but can have implications for the ongoing expansion of the firm. Owner operator firms tend to find it more difficult to access capital, and firms tend to grow organically from reinvesting profits. This seems to make radical and risky changes in business strategy (which may require exceptional amounts of capital) difficult to finance. Problems with capital can also make difficult periods more dangerous for the firm.

The interests of some owner operators may diverge over time from growing the company. Lifestyle concerns or risk aversion can set in over time, which can limit the company's growth. There are also some examples of owner operators failing to put succession plans in place. This can cause critical leadership issues for a company.

Ownership changes are often required to support a growing firm. Often this outside ownership comes in the form of a foreign purchaser in the same industry. Some argue that this is due to some failure in the New Zealand capital market, but this paper offers another interpretation. Foreign firms not only offer capital, they offer distribution channels, networks, brands and credibility.

A foreign takeover may not always be a positive experience. The strategy of the purchase may be to move the unique characteristics of a firm overseas, eliminate the threat that the New Zealand company is posing, or use the firm as a revenue source.

The net benefit of foreign firms purchasing New Zealand firms should be the subject of further research. Specifically, more systematic case study or unit level research on what happens to New Zealand firms post purchase would be interesting in order to track the fate of firms over time.

If indeed the sales are for the best of all concerned, this raises the possibility that New Zealand is a nursery economy – optimally designed for nurturing new ideas and small businesses that then are fully exploited offshore. This may be an area of comparative advantage for New Zealand given our unique set of skills.

Overall, selling out to foreign firms in the same industry seems to be a popular way of overcoming the hurdles of distribution economies. The net effect of this on New Zealand seems to depend on the circumstances of the purchase.

3.3.6 Summary

Establishing distribution economies, that is investment in branding, marketing and distribution, is important to entering mass markets and becoming an MNE. Importantly, the strategies used by New Zealand firms to reduce the initial hurdles to exporting do not help in the quest for ongoing firm growth.

The strategies for growth used by many established New Zealand firms reflect the importance of distribution economies, and the difficulties of achieving them without significant investment and risk. The most popular (and seemingly the simplest) way around these difficulties is by becoming part of a foreign MNE.

These issues help explain why New Zealand has no MNEs outside the resource based sector. It is unlikely that this hurdle is insurmountable however, as there are a handful of firms that appear to be on the edge of breaking through the hurdle to MNE status.

4 What Are The Causes of These Hurdles?

Small domestic market size and distant location and exchange rate volatility appear to be the chief causes of the first hurdle. Capital markets are also often blamed for these hurdles, however there is little consistent evidence to confirm this.

4.1 The impact of domestic market size and location

The impact of distance is the subject of considerable investigation in economic geography literature. Leamer and Storper (2001) argue that a countries' exporting performance can largely be accounted for by location, specifically the effect of distance from trading partners. In fact, when this is taken into account, Smith (2001) shows that New Zealand seems to perform relatively well. The issue that arises from this is how distance flows through to have a negative impact on a firm's ability to export.

The qualitative research canvassed in this paper suggests that New Zealand's market size and distance from trading partners has a major impact on both the hurdle to entering exporting and the ongoing hurdle to exporting.

The impact of size and distance on the first hurdle to exporting, and firm's export strategies as a result, is common in the case-study literature. The key issue here is that New Zealand's small domestic market forces firms to export while they are still comparatively small if they wish to expand sales. This was discussed in section 2 above, and will not be repeated here.

New Zealand's location and distance from major markets - customers, competitors and suppliers - also affects the flow of information (on tastes, standards and other regulations, innovations and competitiveness) to firms. Scouting missions or even local representation in a market are needed to test and stay in touch with consumer demands. This adds to the fixed costs of the move into exporting, and also increases the risks of costly mistakes. As discussed, fixed costs are bigger issues for a smaller firm.

The distance and size of the domestic economy combined also seem to raise some serious credibility issues for New Zealand firms. Greater distance increases time to

market.¹⁶ Also the smaller size of New Zealand firms and distance from markets raises credibility issues with overseas customers, for whom reliable supply is crucial.

The impact of size and distance on distribution economies (the ongoing hurdle) are more subtle. Investment in distribution and marketing takes capital. Greater scale allows the firm more resources to undertake such an investment, and often means the firm has a broader product range across which it can spread the relatively fixed costs of the investment. New Zealand's small domestic market and the strategies used by New Zealand firms to circumvent the first hurdle to exporting means that firms often struggle to reach the necessary scale.

In the case of distribution economies it is easier to discount the impact of elements other than sheer scale. It is more difficult to blame poor management or lack of skills – many of these small firms are recognised world leaders in their speciality, and are profitable enough to attract the skills needed. In some cases, owners may sell out purely for lifestyle reasons although this is certainly not the case in many firms where the former owners continue to work in the company. When a New Zealand business is sold to overseas interests it typically goes to a foreign business in the same field. Why is this? If this move were not overcoming some sort of problem faced by the business (i.e. the exploitation of distribution economies) and were simply a matter of additional finance for expansion, the sales would just as likely take the form of a public listing on the stock exchange.

If this theory is correct, one remaining question is why specialised trading houses have not developed in New Zealand to overcome the distribution problem? It could be that the industries that New Zealand firms are involved in outside of agriculture are too diverse and small to effectively manage as a whole.

Overall, it seems that market size and location have an important part to play in explaining the hurdles to exporting. It is worth reiterating here that further systematic research is needed to confirm the existence of this first hurdle. Other factors may be important such as culture or management skills, although it is difficult to draw conclusions in these areas.

4.2 Domestic market size and location can sometimes help...

In some cases a small domestic market and distance may be an opportunity rather than a constraint. Strategies developed to deal with these issues have become a major source of competitive advantage for certain firms. There are several reasons for this, and these are discussed below.

For some firms, the experience in producing for the small domestic market forces the development of expertise in flexible manufacturing. This skill lends itself to the growing practise of customisation. There are many examples of this advantage in the firms surveyed in the Infometrics Manufacturing Export Survey.

Isolation may also means that New Zealand's culture and intellect are relatively unencumbered by many overseas paradigms. This is frequently mentioned as a positive attribute of New Zealand R&D staff, engineers and designers. Similarly, isolation often forces do-it-yourself problem solving. This "tinkering" stimulates alterations to standardised products, often creating niche products.

¹⁶ Improved transportation times and IT have helped, however just in time inventory systems have had a countervailing effect. Case studies suggest that this is still an issue for many New Zealand firms.

The feeling of isolation from foreign ideas can also cause a disproportionate effort in response. Some firms report that their feeling of isolation has created a culture of curiosity about the outside world which leads to them being more well informed than their overseas counterparts (especially now that codified information moves so easily).

Having smaller firms forces the few employees in a firm to have a broad, generalised knowledge. While this can have its drawbacks (especially if specialised knowledge is needed), in some cases this seems to lead to better service and even improved innovation from the cross fertilisation of ideas. As a result of this generalised knowledge, smaller companies can be very responsive to customer demands and general change.

The informality of small firms can also improve innovation (there is some evidence indicating that smaller firms are more efficient innovators, despite the proportional R&D spend being lower for small firms (see Watt (2001)).

These factors seem to lend weight to the idea that New Zealand is a nursery economy for niche products. New Zealand firms are well suited to developing innovative niche or customised products. Due to distribution economies however, local firms may struggle to fully capitalise on these ideas internationally.

Example: PEC

During the 1980's John Williams of PEC outsourced many of the company's functions in an effort to maintain staff numbers below 100. He feared losing the intimacy of the company, which he believed was the source of its "innovative culture". This strategy had to be revisited as sales continued to grow.

Source; Campbell-Hunt/ CANZ (2001)

Example: Nuplex

Nuplex is a New Zealand based company with operations in Australia and Vietnam. The company manufactures and markets resins, polymers, construction materials and offers services for the treatment of special wastes. Global resin manufacturers have tended to specialise in an increasingly narrow range of products. Being in a small firm, Nuplex staff are forced to keep abreast of a wide range of products. Nuplex believes this has enhanced their service to the customer, as the staff have a wider knowledge base and can tailor solutions to the customer. Nuplex begins "by seeking to understand the customer's need, whereas larger and more specialised competitors often begin and end with their one and only solution."

Source; Campbell-Hunt and CANZ (2001)

4.3 Capital Market Failure

Limited access to capital is often blamed for the problems of New Zealand business. This section looks at the issues around the formal capital market¹⁷ and finds little evidence that this is an issue. New Zealand capital markets seem to show signs of improvement over recent years. The key issues appear to be expertise and information rather than simple finance.

What is capital market failure? In theory it is the inability to access finance for an economically valuable purpose. In practise it is very difficult to demonstrate. The possible causes of capital market failure are varied – lack of information, poor judgements or even

¹⁷ It does not consider the informal capital market – existing outside institutions – as there is little research on this.

discrimination. Several studies have been conducted on small business finance in New Zealand and the picture is complex. Many of these past studies have been summarised in Cameron and Massey (1999), while some more recent studies also have some perspectives on the issue. All of these studies are drawn on here.

It is important to begin with a few definitions of different types of capital. Debt finance is given in return for interest payments. It is usually in the form of a loan from a bank, backed up by collateral from the borrower. Equity finance is given in return for a portion of the ownership of the business. This includes a right to future profits. Seed capital is money needed to get a new venture off the ground. Venture capital on the other hand would become involved once a product is established and is starting to be sold. Venture capital is given in exchange for equity, whereas seed capital may be funded by debt or equity.

4.3.1 Debt Finance

There is strong evidence of a statistical difference between interest rates on loans to businesses of different sizes in Australia, and some evidence of similar circumstances here in New Zealand. Cameron and Massey (1999) argue that this is related to the higher administrative costs and risks of lending to small businesses. Small businesses seem to have difficulties providing business plans, accurate information and security for the loan. However, banks are becoming more flexible with regards to the security that is offered.

Financial deregulation appears to have improved the ability and desire of banks to lend to business. This increased flexibility has led to a much greater use of debt financing by business, especially by larger companies.

4.3.2 Venture Capital

On the demand side of venture capital (businesses seeking venture capital), some common stories come through. Similar to debt finance, small businesses seem to have a poor idea of what is needed to get people to invest in their business (i.e. business plans). However recent increases in access to specialist services (such as business mentoring) should help in this regard.

Entrepreneurs also reportedly have problems with the idea of giving up equity, and consequently favour debt. Similar stories are not uncommon overseas, so it is difficult to tell to what degree New Zealand is unusual in this respect.

On the supply side (companies supplying venture capital), New Zealand's venture capital market may have come under more criticism than is justifiable.

Campbell-Hunt and CANZ (2001) questions the adequacy of New Zealand's venture capital markets, not only in their ability to provide finance, but also to provide expertise and advice. The focus of this study is on global leaders, especially the phase of going global with a new product simultaneously in many markets. Campbell-Hunt and CANZ (2001) note that many of the exemplar firms that they investigated in this category had received contributions from the Development Finance Corporation¹⁸ (DFC) during this critical move into exporting. According to Wally and Brian Smaill of Criterion "*The DFC for us is the reason we are here.*" The difficulty with the Campbell-Hunt and CANZ (2001) conclusions is that they come from studying companies that are quite old. As such this work has limited application when drawing conclusions about today's capital market.

¹⁸ The Development Finance Corporation was a Government company aimed at improving capital access for firms – it administered several Government programmes including loans and grants for capital required to enter exporting.

In terms of finance New Zealand's venture capital market seems to be showing encouraging signs. Watt (1999) argues that a fledgling venture capital industry developed in New Zealand in the 1980's, partly encouraged by the involvement of the Development Finance Corporation (DFC). The venture capital market suffered a huge set-back in 1987, with the high-risk enterprises involving venture capital being wiped out in the stock market crash. Cameron and Massey (1999) claim that the venture capital industry in New Zealand has not yet recovered from this setback. There are, however, some signs that this recovery is starting to happen. New Zealand is now spawning a few true venture capital firms.

On the other hand, the provision of information, networks and expertise to firms may be a real problem for the New Zealand venture capital market. This role is as important as providing finance. Unavoidably some knowledge about the industry is needed to make a positive impact (often in the form of expertise and networks). In the United States, venture capital firms (and the analysts within them) are focussed on certain industries (Watt, 2000). Given the small size of most New Zealand businesses and the diverse nature of their products, New Zealand venture capital firms cannot afford to do this. Some New Zealand entrepreneurs complain that as a result they cannot get the information they need from venture capitalists. New Zealand may therefore be a comparatively difficult place for a venture capital market to function perfectly.

This information/expertise/networks issue may link to the ongoing hurdle to exporting. If New Zealand firms cannot find home grown sources of expertise and networks (and specialised tacit knowledge is an important issue in their industry), perhaps they need to look to offshore partners or buyers in the same industry. This information/ expertise issue is worthy of further research, as it is consistent with the observation that New Zealand firms tend to look to foreign firms in the same industry to acquire distribution economies.

4.3.3 Seed Capital

Cameron and Massey (1999) state that *"there will always be a gap in the supply of such capital in New Zealand for amounts less than about \$250,000."* Their arguments are basically that professional venture capital is run as a high margin, low volume business. Before investing, venture capitalists undertake research into the company's status and prospects (due diligence). As this process is a fixed cost, venture capital companies often cannot afford to look at small start-up companies. Instead they *"tend to limit their resources to funding established businesses and large projects such as management buyouts"* (Cameron & Massey (1999)). Start-up finance is also unlikely to come from banks (due to the risks of an undeveloped product) unless security is given. Traditionally this early finance area has in the past come from friends, family and networks of business "angel" investors.

The Government's Venture Investment Fund¹⁹ (VIF) is intervening in this area attempting to improve the access to capital for start-ups. By providing matching funds for venture capitalists to engage in this area, the aim is that private sector expertise in dealing with these firms will grow, and a seed capital industry will be spawned. It will be interesting to see if the skills emerge and the seed capital market proves to be viable, or if Cameron and Massey's (1999) view on fixed costs prove correct and the area is unable to yield returns.

4.3.4 Public Listing

Commentators consistently make the following observation about the use of the sharemarket to obtain capital in New Zealand. Even companies with growth ambitions

¹⁹ See www.nzvif.com

tend to have high dividend policies, relying on debt for expansion. This leaves the companies exposed to increased risk when things go wrong.

4.3.5 Conclusion

Overall, the evidence on capital market imperfections is inconclusive. There is little evidence that the capital market in New Zealand functions less effectively than anywhere else. This is an area with considerable profile - much of it negative - without a lot of substantive evidence to back it up. Two factors about New Zealand appear to make the job of capital markets more difficult in New Zealand than overseas. Firstly, the high proportion of small firms may cause difficulties for the capital market. Capital markets all over the world do not finance many small firms due to the fixed costs and risk involved. Small firms traditionally rely on owner or angel capital. This point is consistent with the high proportion of angel financing in New Zealand shown by the GEM report (2001). Secondly, the small domestic market may lead to a lack of specialised expertise in the New Zealand venture capital market rather than lack of capital *per se*. This may be a contributing factor behind firms turning to foreign purchasers in the same industry for expertise and networks.

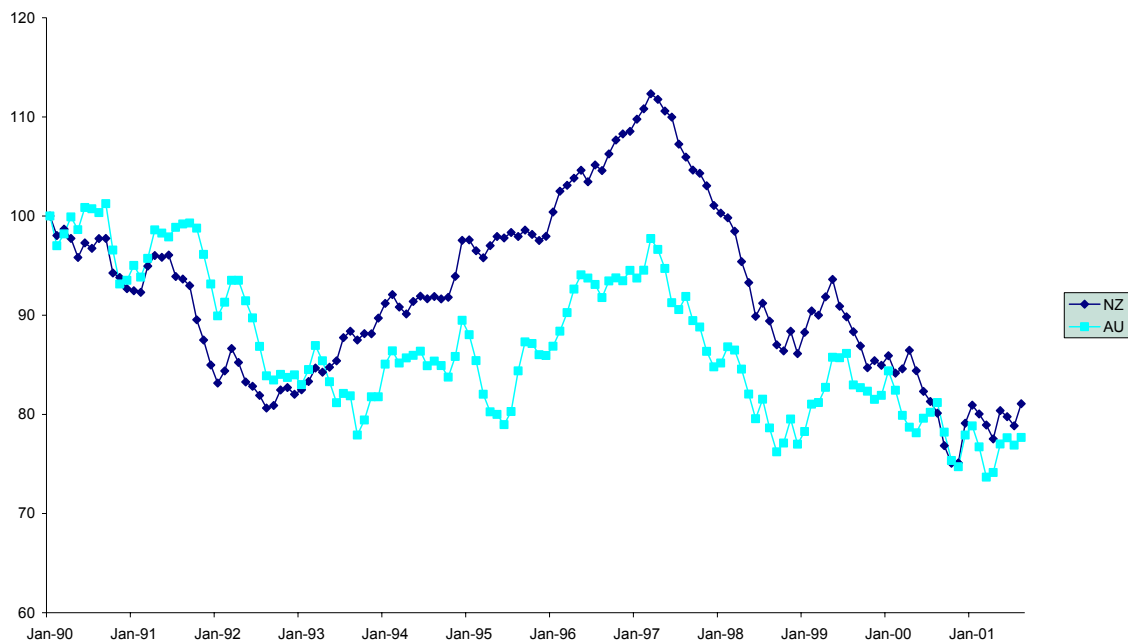
4.4 Exchange Rate Fluctuations Are A Persistent Issue

A consistent issue raised by business in past years of the Infometrics survey is the exchange rate. The exchange rate level is not the key issue *per se*, it is the amount of fluctuation. These findings are backed by a survey in Grimes, Holmes and Bowden (2000). Their survey showed that the average level of the exchange rate in the 1990's favoured some groups and disadvantaged others, overall producing a largely neutral effect. According to that survey, exchange rate fluctuations caused adverse conditions for the majority of firms (80%) surveyed.

Another interesting result from the Grimes, Holmes and Bowden (2000) survey is that firms with 11-20 employees seem to favour currency union most strongly. The authors argue this is because these firms are on the brink of exporting, but do not yet have the size to afford hedging against exchange rate fluctuations. They point to a few key facts to back up this up. Recalling Table 2 in Section 2.2, there seems to be an increase in exporting activity after the firm grows beyond 20 employees. The survey also shows that only 20% of firms with less than 25 employees and significant exports have some hedging, compared to 93% of firms with over 50 employees. This lack of take-up may be related to relatively high fixed costs of hedging for small firms. In short, exchange rate fluctuations, along with the other costs and risks of moving into exporting discussed previously, may well impinge on SMEs the most.

The 1990's were a period of considerable exchange rate movements in New Zealand, both real and on a nominal basis. Figure 7 shows how New Zealand's real exchange rate (weighed according to our trading partners) moved proportionately more than Australia's over the entire period of the 1990's.

Figure 7: New Zealand and Australia Real Exchange Rates (Jan 1990=100)



Source: IMF New Zealand and Australia trade weighted real exchange rates, both indexed to 100 for 1990.²⁰

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Between the New Zealand dollar’s high in March 1997 and low in October 2000, the real exchange rate lost 33% of its value. It is difficult to hedge for fluctuations of this size over this timeframe. In comparison the Australian dollar lost 27% of its value over a much longer timeframe – September 1990 to March 2001.

The exchange rate may be an easy scapegoat for exporters and may therefore get undue levels of attention. However, any factor that can move costs (through imports) and revenues by up to 33% over a period of 3½ years can potentially alter a firm’s export strategy.

Example: Criterion Ltd

Criterion is Australasia’s largest manufacturer of ready-to-assemble furniture. Criterion’s exporting strategy is heavily influenced by the exchange rate. With a strong New Zealand dollar, the profitability of marginal markets is reduced, and the company narrows its overseas focus while broadening the product range offered there. A low dollar prompts an increase in market coverage with fewer, more profitable products. This is one example of how New Zealand companies adapt and cope with different exchange rate levels, and as such levels are not a serious issue. Change is not costless however, and exchange rate uncertainty makes strategic decisions difficult.

Source; Campbell-Hunt and CANZ (2001)

In short, a fluctuating exchange rate has the potential to cause considerable problems, especially for small firms. It increases the risks of moving into exporting, and provides ongoing risks for exporting firms. The risks and costs associated with hedging are also likely to be proportionately greater for the smaller firm. This complements the analysis on the first hurdle to exporting by compounding the risks faced by small firms in this move.

²⁰ Thanks to Richard Downing of the Treasury for this data

5 Policy Implications

While New Zealand's regulatory hurdles to firms start-ups and growth may be low compared to overseas in absolute terms²¹, they may have a high relative impact due to New Zealand's unique characteristics. Regulation often adds to fixed costs. As has been discussed, fixed costs tend to have disproportionate impact on small firms. In recognition of this fact, many overseas countries exempt small businesses from certain regulations. Given the predominance of small firms in New Zealand, and given the problems we have already seen small business facing, it seems likely that any such regulatory hurdles are more important here than overseas.

The existence of fixed costs in the move into exporting and their disproportionate impact on small firms has other important implications for government policy. The existence of fixed costs of finding information about foreign markets is presumably part of the rationale for the existence of Tradenz.

The difficulties of small firms dealing with fixed costs means that any attempts to assist these firms need to be simple, well designed and have low compliance costs to have the maximum impact. A recent survey by the University of Waikato indicates that

"...71.6 percent [of respondents] are not aware of the services provided by Industry New Zealand and 84 percent don't have any professed knowledge of the assistance available from the Foundation for Research Science and Technology. Trade New Zealand is faring marginally better with a 43.7 percent awareness rating".

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6 Summary and Conclusions

Firm growth, particularly for New Zealand's large number of small firms, is a key issue in the story of New Zealand's economic growth. Many factors are important to firm growth in New Zealand. Given New Zealand's small domestic market size however, the move into exporting is especially important for firms in the tradable sector.

There is some evidence to support the existence of hurdles to exporting. The first hurdle is related to the small size of many firms that need to begin exporting in order to expand. This in turn is related to the small size of the domestic market. There seem to be fixed costs associated with the move to exporting, which is likely to have a disproportionate impact on small firms. The fluctuating real exchange rate, government regulation and tax compliance costs may add to these fixed costs of expansion²². Firms use a number of strategies to circumvent such problems, including focussing their resources on one product, specialising in a niche industry and using independent foreign distributors. At this stage the existence of a hurdle to entering exporting is simply conjecture backed by anecdote - systematic evidence around the firms move into exporting is not available. In terms of explaining New Zealand's predominance of small firms (and low levels of exporting), it is also difficult to disentangle the impact of these fixed costs from other factors, namely culture, or falling transaction costs leading to smaller firms.

Interestingly, there seems to be some evidence of a hurdle to ongoing expansion that may prevent the formation of New Zealand MNEs outside of the resource sector. This ongoing

²¹ According to most international surveys, regulatory hurdles to starting up businesses in New Zealand are low. Out of 29 countries the GEM report rated New Zealand 4th on both low regulation and taxation burden and low hurdles to market entry.

²² Although New Zealand's tax and regulation levels are not too dissimilar to overseas, the predominance of small firms means that these fixed costs may have a larger impact.

hurdle seems chiefly due to firms' lacking scale in marketing and distribution. The strategies used by firms indicate the importance of this hurdle. The most popular strategy to deal with this hurdle appears to be selling to large overseas firms in the same industry. Whether this is optimal for New Zealand depends on the strategy behind the purchase. This ongoing hurdle may not be insurmountable, there are some firms that appear to be developing their own distribution networks and approaching MNE status.

Resource firms appear to have achieved MNE status on the back of bulk standardised products. This has given them the scale to invest further in developing distribution networks and branding for more differentiated products.

The small size of the New Zealand market seems to be a crucial element in the existence of the hurdle to ongoing firm growth. New Zealand firms that are sold to overseas firms do not seem to be lacking skills, or an achievement-oriented culture. Most of these firms have proven themselves to be world leaders in their product area. However, due to problems around distribution and marketing, these companies find it difficult to achieve global status alone.

While it seems that New Zealand's size and location create and compound the first and ongoing hurdles to exporting, this does not give a complete picture of the issue. There are many clever ways firms can find to circumvent the problems of size and location, depending on the circumstances. Indeed in some instances firms have turned the size and location of New Zealand into a competitive advantage.

I also recommend further research into the certain areas. There needs to be systematic research into small firms to draw out the issues of moving into exporting, and if the firms face hurdles in making this step. Some work should be done on the impact of foreign ownership of New Zealand's successful businesses, both from the businesses perspective as well as that of New Zealand as a whole. More work should be done on the issue of distribution economies, including the reasons why New Zealand firms struggle to build their own distribution networks or why we do not observe the emergence of specialised distributors. Finally, some thought needs to be given to access to expertise and networks through the venture capital industry in New Zealand.

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