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HĪKINA WHAKATUTUKI

Barriers to generating international income:

Evidence from the Business Operations Survey

January 2017

New Zealand Government

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Abstract

This note draws out data from the International Engagement module of the Business Operations Survey 2011. The module was designed to capture information on the international activities of a large, representative sample of New Zealand firms, including the types of activities they are involved in and the barriers they encounter. The note focuses on the level of interest that firms show in becoming internationally engaged, and how the barriers they perceive in entering and maintaining a place in international markets differ by their level of interest and experience. It also considers the extent to which interest in overseas income as reported in both the 2007 and the 2011 International Engagement modules translates to export market entry in later years, and how future entry propensity differs according to the barriers, motivations and strategies reported by the firm.

JEL Classification: D22, F10

Keywords: *export barriers, firms, overseas income, international engagement, Business Operations Survey*

Executive summary

The ability of New Zealand firms to operate internationally is consistently raised as a key factor influencing the country's productivity performance and prosperity. Improving the connectedness of our firms can enhance productivity through increasing scale, enhancing competition and improving access to world-class ideas and technologies. While there are many aspects of international connectedness which are relevant for New Zealand's economic performance, policy interest has often focused on improving our export performance. In this regard, a key concern of policy makers is to establish whether there are specific factors that are holding firms back from overseas income generation, and whether these barriers may be amenable to policy intervention.

This note draws on data from the International Engagement module of the Business Operations Survey 2011 (BOS11) to examine the level of interest in earning international income among the population of New Zealand firms, and how the barriers that firms perceive in entering and maintaining a place in international markets differ by their level of interest and experience. It also considers the extent to which reported interest in earning overseas income translates into realised export activity in future years, through the incorporation of data from annual BOS surveys from 2007 to 2014.

The data shows that across the population of firms that are not already generating overseas income, there is little appetite to move towards greater international engagement. Over 90 percent of non-engaged firms state that they are either not interested in, or not suitable for, overseas income generation. Common reasons cited for this lack of interest are a need for physical proximity to customers, or satisfaction with the opportunities available in the domestic market.

Despite this, the absolute number of firms that are either actively seeking or are interested in exploring the possibilities for overseas income generation is sizeable compared to the current stock of engaged firms. Moreover, a sizeable number of those firms that expressed an interest, and particularly those that were actively exploring the options for overseas income generation, appear to have successfully entered at least one export market or had significant tourism earnings in the three years following the 2007 and 2011 International Engagement surveys. However, an interest in earning overseas income is clearly not sufficient to guarantee success – even among firms which reported that they were actively working towards earning overseas income and expecting to see some result within the next twelve months, over 40 percent of those that could be tracked over the following three years reported no exports or significant tourism earnings over that time.

Reported barriers to overseas income generation differ both by firms' level of experience and their level of interest. Among non-engaged firms, the most commonly reported barriers relate to a lack of experience in expanding beyond New Zealand, a lack of knowledge about specific markets and difficulty accessing finance for expansion. Firms that are interested in the possibility of earning overseas income in future but are not actively exploring that potential report a lower number of barriers overall, but are more inclined to cite "other" barriers, which may include a lack of managerial resources to devote to expansion. Similarly, among current exporters, level of interest in further expansion is positively correlated with the probability of reporting most types of barriers, with the exception of "other" barriers. Consistent with the greater level of experience that these firms have already gained, factors such as experience and market knowledge are less commonly reported by this group, with exchange rate levels and volatility coming to the fore alongside distance to markets and a lack of demand or strong competition in overseas markets.

These barriers are also reflected in firms' reported reasons for exiting from specific overseas markets, with nearly half of the firms that had left one or more markets citing falling market demand or increased competition as a reason for exit. Lower than expected profitability and exchange rate conditions were also common reasons for exit from specific markets. In contrast, relatively few firms cited exchange rate conditions as a factor in their decision to exit foreign markets altogether. Although it is difficult to draw conclusions about the motivation of firms which exited completely due to high non-response rates, to the extent that information is available, complete exits appear to have been driven more by changes in demand conditions or strategic direction, or occur because firms have completed a specific order or job.

Looking to the future, we also examine whether the barriers that firms report facing in 2007 and 2011 can help to predict their probability of entering new export markets over the following three years. The level of interest in overseas expansion is an important predictor of both initial entry by new exporters and additional market entry by firms which currently have overseas income. In contrast, while a number of barriers reported by firms with current overseas income are correlated with future expansion into new markets, there is no apparent relationship between the perceived barriers faced by non-exporters and the probability that these firms will commence exporting (including significant tourism earnings) over the next three years.

Among non-exporting firms, entry propensity is higher among those firms which stated that their interest was motivated by having reached the potential of the domestic market and those which believed that new contacts or alliances had opened up new market opportunities. Among firms with existing overseas income, future market entry is more likely among firms which perceived exchange rate volatility as a barrier to their ability to earn overseas income, and those which employed strategies of offering unique or innovative goods and services and those which entered one market to access another market, and less likely among those that reported either a lack of experience with expanding beyond New Zealand or low demand or increased competition as barriers. These relationships, however, are not necessarily causal, and may reflect unobserved characteristics of the firms or their target markets rather than a direct relationship between the reported barriers, motivations or strategies and future market outcomes.

Contents

1 Introduction

> The key strategic challenge to increasing our prosperity is connecting internationally.
>
> The Treasury, 2014

The ability of New Zealand firms to operate internationally is consistently raised as a key factor influencing the country's productivity performance and prosperity. Improving the connectedness of our firms can enhance productivity through increasing scale, enhancing competition and improving access to world-class ideas and technologies. The importance of these connections is heightened by New Zealand's small population size, which constrains opportunities for domestically-driven innovation and growth. Meanwhile, the ability of New Zealand firms to forge strong international connections is hindered by our geographic isolation (Treasury, 2014).

While there are many aspects of international connectedness which are relevant for New Zealand's economic performance, policy interest has often focused on improving our export performance. New Zealand's aggregate export intensity is low compared to that of other small, developed countries, and is concentrated in a few key product areas. At a firm level, entry into exporting and expansion into new markets increases the performance gap between exporting and non-exporting firms (Fabling & Sanderson, 2013). Firms raise both employment and capital intensity as they enter exporting, and continue to do so when they expand into additional markets, increasing aggregate productivity by drawing resources into firms which were already more productive than their domestically-focussed competitors. At the same time, investment by new exporters outstrips the corresponding employment growth, raising within firm labour productivity.

Given the importance of exporting for productivity, a key concern of policy makers is to establish whether there are specific factors that are holding firms back from overseas income generation, and whether these barriers may be amenable to policy intervention. Growth in aggregate overseas income can be decomposed into that coming from two margins: the *extensive* margin of firms' entry and exit to exporting, and the *intensive* margin of export value per firm.[1] Government intervention aimed at raising aggregate export receipts could target either margin – drawing new firms into exporting (eg, by increasing incentives to export or decreasing costs and barriers), or assisting existing exporters to increase their overseas revenues. To the extent that the incentives and barriers faced by new entrants are similar to those reported by established exporters, the same set of interventions may help achieve both goals.

This note draws on data from the International Engagement module of the Business Operations Survey 2011 (BOS11) to examine the level of interest in earning international income among the population of New Zealand firms, and how the barriers that firms perceive in entering and maintaining a place in international markets differ by their level of interest and experience. It also considers the extent to which reported interest in earning overseas income translates into realised export activity in future years, through the incorporation of data from annual BOS surveys from 2007 to 2014.

Section 2 discusses the data source used in this paper, including an assessment of data quality. Section 3 provides broad statistics on the extent of involvement in overseas income generation, and characteristics of the firms involved. The main analysis of the paper focuses on barriers to international income generation. Sections 4.1 and 4.2 consider firms that are not currently exporting, examining their motivations for future overseas income generation and the challenges they anticipate. Section 4.3 turns to the barriers reported by firms with current overseas income, and their motivations for future expansion. Finally, section 4.4 considers the factors that lead firms to cease generating overseas income, either completely or from one or more market. Section 5 concludes.

[1] Fabling & Sanderson (2010) show that the intensive margin accounted for between 83 and 88 percent of aggregate manufacturing export growth over the period from 1996 to 2006, primarily through incumbent exporters entering new geographic or product markets.

2 Data

2.1 Data source

The Business Operations Survey (BOS) is an annual survey conducted by Statistics New Zealand. The sample is approximately full coverage for large firms, with sampling rates decreasing by size (employment) category. The survey consists of three modules. Module A covers general questions on Business Operations and is conducted annually. Module B alternates between Business Use of ICT (even years) and Innovation (odd years). Module C is a contestable module, sponsored annually by one or more government departments.

In 2011 the module was sponsored by the Ministry of Economic Development and focused on International Engagement. The module was designed to capture information on the number of firms involved in various types of international activities, as well as motivations for, and barriers to, international engagement. Although the 2011 survey was nominally a repeat of an earlier International Engagement module (BOS07), in practice a substantial number of questions were altered between the two surveys creating challenges for longitudinal analysis. This paper therefore focuses on descriptive analysis of the 2011 responses, alongside limited analysis of longitudinal patterns from the other BOS years. In particular, the longitudinal analysis is focused on a small number of questions which were asked consistently across the two modules, relating to firms' future intentions regarding overseas income generation, the strategies and motivations they have in pursuing that goal, and the barriers they perceive as affecting their ability to earn overseas income.

Since this paper was prepared, results of an additional International Engagement module have become available, from the 2015 Business Operations Survey (BOS15). This module has been substantially re-worked compared to the two earlier modules, including changes in the coverage of overseas income and in the major topic areas covered by the survey. Due to these changes, and the recency of the new data release, responses from the 2015 survey have not been incorporated into the analysis presented here. However, where relevant we do refer to aggregate results published by Statistics New Zealand. Comparisons of aggregate responses across the 2007 and 2011 BOS surveys are available from Statistics New Zealand.[2] Aggregate results for the 2015 survey are available from Infoshare.[3]

The International Engagement modules of 2007 and 2011 are divided into three main sections: *Overseas income generation* (primarily exports of goods and services, but also earnings from assets or intellectual property), *overseas production of goods and services*, and *purchases from overseas*, where the latter two categories are distinguished by the amount of input that the New Zealand firm has in the design and development of the product or service in question. This paper looks solely at overseas income generation.

For the purposes of the survey "overseas income" is defined quite broadly. In particular, it includes the purchase of goods and services by foreign nationals who are temporarily visiting New Zealand, where these are a substantial revenue source for the firm. This definition captures important sources of overseas income such as tourism and export education, but creates additional challenges in interpreting the survey results. These challenges are discussed in the next section.

2.2 Data treatment and quality

The primary population for BOS is all private-for-profit firms with at least six employees. From that population, a stratified random sample of around 7,000 firms is selected each year. In 2011 there was a total of 5,352 useable responses.[4] After excluding an additional 168 firms that gave an inconsistent answer to the core routing question in the international engagement module, the sample was reweighted to reflect the original population

[2] `http://www.stats.govt.nz/browse_for_stats/businesses/business_growth_and_innovation/BusinessOperationsSurvey_HOTP2011.aspx`.

[3] `http://www.stats.govt.nz/infoshare/`.

[4] All firm counts reported in this note have been random rounded base three in accordance with Statistics New Zealand confidentiality requirements. The BOS sample includes both an annual, representative cross-section and a top-up sample which is designed to maintain a panel component for longitudinal analysis or, in 2007, to facilitate the move from ANZSIC96 to ANZSIC06 industry classifications (see Fabling & Sanderson (2016) for further detail on the BOS sample). The main analysis in this paper uses only the core, cross-sectional samples, while the longitudinal analysis of entry rates also incorporates the additional top-up samples.

of 35,499 firms.

Analysis of the quality and internal consistency of the BOS11 survey responses suggests a number of issues:

1. The number of firms earning income from overseas residents visiting New Zealand (eg, income from tourism or education exports) is likely to be understated, as these firms do not view their activities as "generating overseas income". Despite an explicit instruction that overseas income includes "significant income from overseas residents visiting or studying in New Zealand", of the 201 firms that reported substantial tourism revenue in Module A ($> 25\%$ of total revenue) only one third identified themselves as having current overseas income in the later module.[5]
2. Comparison of Module A and Module C also shows that the distinction between firms with past overseas income, and those that have never generated overseas income is unclear. Almost 10 percent of the firms that state in 2011 that they have never earned foreign income, had previously said that they either were currently generating overseas income or had in the past (Module C, 2007). A similar proportion of those whose BOS Module A responses could be tracked back to 2005 had recorded earnings from exports in at least one of the past six years.[6]
3. Item non-response is significant throughout the survey, but is particularly problematic among those firms with past overseas income. This is likely to be driven by recall difficulties – non-response rates are highest for questions relating to the firm's past activities and much lower for questions relating to intentions for the future.[7]
4. A similar problem is seen when firms with no past overseas income are asked for details on their future intentions. While response rates for basic questions around the level of interest in future overseas income are answered well, details such as the motivation behind this interest, the countries they would target, and the barriers they perceive, are frequently missing. Failure to answer these more detailed questions is related to firms' level of interest – non-response rates are lower among firms that have actively taken steps towards international engagement than for those that note only that they are interested in exploring the options – suggesting that non-response occurs because firms have not previously considered such details.
5. Item non-response is also relatively high for questions on the barriers that firms face in generating overseas income. This may be associated with the response categories provided, which do not give firms the option of reporting "no significant barriers". The 2015 module explicitly allows firms to select "no significant difficulties". This option was the most frequently selected response among firms currently selling to overseas market, selected by around 34 percent of these firms (Statistics New Zealand Infoshare).

In response to the first issue, and in recognition that the barriers faced by firms dealing with foreign customers in New Zealand are likely to differ substantially from those engaging offshore, we include, where relevant, controls for those industries that we expect to be more likely to operate onshore (retail trade, accommodation and restaurants, road and rail transport, museums and zoos, sports and recreation activities, and education) to consider whether responses differ for these "onshore" industries.

In general, our approach to item non-response is to calculate proportions over the firms that provide a useable response. For example, if 40 firms respond "yes", 40 firms respond "no" and 20 firms fail to respond, the proportion saying "yes" would be reported as 0.5 (40/(40+40)) rather than 0.4 (40/(40+40+20)). Thus, we are implicitly assuming that item non-response is not correlated with the firm's "true" response. For those groups where response rates are particularly low (eg, questions on past and future activities), this implicit assumption is not likely to hold. However, in these cases observed responses may still be a reasonable representation for important subsets of firms: those with recent experience and those that are actively looking at generating overseas income in future. Appendix A reports item non-response rates for all questions used in this note.

[5] These two answers are not entirely inconsistent, as firms may be including revenue from *domestic* tourism in Module A. However, this is unlikely to fully explain the gap between the Module A and Module C responses.

[6] In general these export earnings made up a relatively low proportion of total sales.

[7] Raw non-response rates are as high as 36% for a text question on the year in which firms first earned overseas income, compared to 9% for a yes/no question on whether the firm is interested in generating overseas income in future.

Where raw non-response rates exceed 5 percent for a given item, this detail is included in the table or figure notes.[8]

We also implement an adjustment to the question on barriers to generating overseas income among those who are currently engaged. Firms were presented with 12 possible response options for this question but did not have the option to state that they did not face any specific barriers. We therefore assume that firms that are consistently good responders but do not provide an answer to the barriers question would have taken a "no major barriers" option had one been available. We generate a new response category and allocate to it all firms that provide internally-consistent responses to at least 13 of the preceding 14 questions but fail to answer the question on barriers. This reduces the missing rate from seven percent to four percent.[9]

The combined effect of these corrections leads our results to differ slightly from the official BOS results reported by Statistics New Zealand. However the differences are very small - in almost all cases where a comparable figure can be constructed from the official release, our estimates differ by less than two percentage points. The exception is reported reasons for complete exit from overseas markets, where differing treatment of non-responses combines with a high non-response rate leading to noticeable differences between our results and the official release. Given the small sample and high rates of non-response, these results should be treated with particular caution.

Finally, in interpreting firms' responses to the survey, it is worth noting that not all questions cover the same period of time. Whether a firm is classified as having *current*, *past*, or *no overseas income* depends on a question referring to their income over the last financial year. This definition is carried through most of the survey, but there are a few key exceptions. Most significantly, firms that are currently engaged in income generation are requested to identify barriers they have faced over the last *three* financial years. This may generate some disconnect in the analysis that follows, as we link responses to the barriers questions to other information including the source of overseas income. If firms are indeed responding to the barriers question by including barriers that they faced in earlier years, and their characteristics have changed in the interim (eg, they may have added or dropped one or more form of income generation) we may be mistaken in linking their reported barriers to their current activities. More generally, if some barriers were sufficient to prevent firms from undertaking a certain activity, this may misrepresent the link between barriers and activities.

3 Involvement in overseas income generation

This section outlines the number and basic characteristics of firms involved in the generation of overseas income (including income from overseas assets). We classify firms according to three categories based on their income generation status: *current overseas income* refers to those firms that have "generated overseas income in the last financial year";[10] *past overseas income* refers to those that have "not generated overseas income in the last financial year but [had] in previous years"; and *no overseas income* refers to those that have "never generated overseas income".

Table 1 reports weighted and unweighted counts of firms according to their status.[11] Thirty percent of the sample report earning overseas income in the past financial year. After weighting to reflect the population, this implies that around one in five New Zealand firms was generating overseas income in the financial year ending in 2011.[12] Only a small proportion of firms report having earned overseas income in the past but not recently

[8]Raw non-response rates tend to be slightly lower than weighted ones, as non-response is more common among small firms. Reported standard errors reflect the variation within the responses, and have not been adjusted to account for non-response.

[9]This adjustment is only implemented for current exporters as firms that do not have overseas income are not asked enough questions to be able to judge respondent quality. Comparisons of reported barriers between current exporters and non-exporters use the unadjusted responses for consistency. Reducing the threshold for respondent quality has little impact on results as few firms lie between 10 and 12 internally-consistent responses.

[10]We refer to these firms as "currently" involved, even though some may have exited from overseas markets part-way through the year.

[11]Raw counts are provided in selected tables to indicate the size of the underlying sample. Unless specifically mentioned, the rest of the paper reports weighted counts.

[12]The exclusion of onshore industries suggests that almost one in four firms was earning some overseas income in 2011. That is, reported overseas income is less common among these onshore industries.

(though recall that there appears to be some under-reporting of past income).

Firms that are currently engaged in overseas income generation tend to be larger than those with past income, which in turn are larger than firms that report no overseas income. Figure 1 illustrates this difference with a kernel density graph of log employment relative to other BOS respondents in the same industry for each of the three groups.

There are also differences in the degree of international engagement by industry (figure 2), with high rates of overseas income generation among manufacturing firms, and low rates among firms in utilities and construction and social and recreational services.[13]

Overseas income is generally a small proportion of firms' total income. As shown in figure 3, 38 percent of firms that report any overseas income state that it accounts for ten percent of their total income or less. At the other extreme, 15 percent of firms report that more than 90 percent of their income comes from overseas.[14]

Just as the propensity to earn income differs by industry (figure 2), so too does the relative importance of overseas income in total income. Figure 4 reports industry average shares of overseas income in total income, conditional on reporting current overseas income. Comparing the two tables shows that within firm intensity of overseas income generation is not closely correlated with the share of engaged firms. For example, while the share of primary sector firms involved in overseas income generation is moderate, with 22 percent of firms reporting some overseas income, the share of overseas income in total income among engaged firms is high, accounting on average for 63 percent of total income.[15] Conversely, while manufacturing firms are the most likely to report overseas income, the average reported share is moderate at 36 percent.

Table 2 reports the prevalence of different sources of overseas income. The most commonly reported source of overseas income is "sales of goods manufactured, processed or finished in New Zealand, primarily for use by other businesses", which is reported by 40 percent of firms that currently earn overseas income, or eight percent of the population as a whole. Other common sources of overseas income include the "provision of services" and "sales of goods manufactured, processed or finished overseas".[16] Conversely, although New Zealand is commonly viewed as a commodity exporter, the number of firms that report exports of raw goods is low. This may reflect the concentration of commodity exports among a small number of firms or, alternatively, that many commodities undergo enough processing in New Zealand that their producers would not consider them to be "raw, unprocessed materials".

Table 2 double counts firms that report multiple sources of overseas income. Most firms (86%) report only a single source.[17] A further five percent report income from multiple sources, but with a clear "main" income source – one which accounts for at least 95 percent of their total overseas income. In later sections of the paper, we focus our attention on "exporters", which we define as those firms whose predominant source of overseas income is from the sales of either goods or services.[18] Firms are allocated to a predominant category if at least 95 percent of their total income comes from that source. We make these restrictions for clarity and because the numbers of firms involved in non-export forms of overseas income generation (earnings from "licensing/franchising arrangements and royalties" (IP), "earnings from assets" or "other") are too small to draw conclusions about these activities.[19] This latter concern is also valid for exporters of raw goods. Although we

[13]Industries are combined into broad groups for presentation purposes. Statistics New Zealand provide a more detailed breakdown by industry and firm size through Infoshare.

[14]Six percent of firms failed to give a useable answer to this question. In many cases, this was because the percentages they reported did not add to 100 percent. The bi-modal pattern is broadly consistent across firms which report earning overseas income from different sources, rather than reflecting high overseas income shares for firms involved in particular types of activity and low shares for firms operating in other activities.

[15]This may reflect market structure in the primary sector, with multiple small producers supplying goods to a small number of processing firms which are responsible for the bulk of exports.

[16]The difference between income sources is not always clear-cut. For example, while some goods can be easily allocated according to their final use, others (eg, computers) may be commonly used both by consumers and by other businesses. Similarly, some firms in traditionally defined service sectors (eg, accommodation and food services) may report income from "sales of goods primarily for personal or household use" (eg, restaurant meals) rather than services.

[17]If the various forms of goods were grouped together, as the survey does for services, 90 percent of firms would report a single income source.

[18]As noted above, some of these firms will be earning overseas income onshore, eg through tourism.

[19]While a significant number of firms earn overseas income from IP, for almost all of these firms, their main

choose to report results for raw goods exporters, as these are the predominant source of overseas income for a significant number of firms in primary industries, these results should be treated with caution due to the small number of respondents involved.

After allocating firms that earn at least 95 percent of overseas earnings from one specific activity (eg, export of raw goods), we then collect together total income from sales of goods, and joint income from sales of goods and services to generate two additional categories: *multiple goods* exporters are firms for which no individual category is predominant but the combined share of the four goods exports categories reaches 95 percent, and *goods and services* exporters are those firms for which the goods and services categories combine to at least 95 percent of overseas income.

Table 3 reports the share of firms in each of the seven main categories of export activities plus the share that fall into "other" categories (either predominant earnings from IP and assets or that cannot be allocated to a predominant income source). Shares are presented relative to both the total number of firms with a given source of overseas income (panel A), and as a share of firms in the industry (panel B). That is, taking the first cell in each panel as an example, panel A shows that of the 1,977 firms primarily engaged in exports of goods for business use, seven percent are in primary industries. Meanwhile, panel B shows that of the 729 primary industry firms that report overseas income, 19 percent gain this income primarily from the export of business goods.

Jointly, three industry groups account for 70 percent of exporting firms in New Zealand – 30% from manufacturing, and 20% each from wholesale and retail trade and professional services (panel A, final column). Manufacturing firms are particularly dominant in the export of processed goods for use by other businesses, while wholesale and retail trade firms dominate in the sale of goods produced overseas. The split between goods and services industries is clear (panels A&B, column 6), though a substantial number of firms in professional services industries are engaged in the export of goods or fall into the "other" category (panel B, row 7).

Exports of raw goods are almost entirely restricted to the primary industries of agriculture, forestry, fishing and mining (panel A, column 3). However, even within these industries, firms earn overseas income from a wide variety of sources (panel B, row 1). An equal number of primary industry firms report earnings from sales of consumer goods as report sales of raw goods, and almost as many again report earnings from sales of processed goods for business use.

4 Barriers to overseas income generation

This section examines commonalities and differences in reported barriers across past, current, and potential future exporters. We focus first on the extensive margin, considering motivations for overseas engagement and perceived barriers among firms with no overseas income. We then examine reported barriers among current exporters (that is, those factors that firms find challenging and that may affect the extent or profitability of their operations, but that do not represent a binding constraint on their ability to export). We then report reasons given for complete or partial exit from previous activities. That is, we try to provide some indication of the main reasons for the initial decision of whether to export and the decision to stop exporting as well as barriers reported by continuing exporters.

4.1 The pool of potential exporters

The vast majority of firms that are not currently engaged have no immediate plans or interest in earning overseas income (table 4). Among firms that have never earned overseas income, only nine percent express any interest in doing so, with the other 91 percent responding that they are "not currently interested or business not suitable for overseas income" (table 4, final row).[20] Levels of interest differ by industry, and are highest in

form of overseas income is earnings from exports of either goods or services, with IP accounting for a very small proportion of earnings. Earnings from IP appear to be complementary with sales of business goods and sales of services, though the differences are not statistically significant.

[20]The level of interest in re-entering overseas markets appear to be much higher among firms that have earned overseas income in the past than those that have never generated overseas income, with 45 percent of firms with previous overseas income reporting at least some interest in generating overseas income again in future. However, the past-exporter figure sits within a wide margin of error, due to the relatively small number of past

industries that already have a high proportion of firms earning overseas income.[21] However, interest in overseas income is not restricted to the traditional export industries such as manufacturing. For example, interest is relatively high in professional services and education, with 6.3 and 8.3 percent of non-engaged firms respectively reporting that they are actively looking at opportunities to generate overseas income in future.

Firms that stated that they were not currently interested or not suitable for overseas income were asked to indicate the reason for their disinterest (table 5). The main responses were either a belief that earning overseas income is infeasible because the nature of the business relies on proximity to customers (55%) or a feeling that the New Zealand market is sufficient (38%). The distribution of these reasons reflect the main activities of these industries – proximity to customers is reported as a reason for remaining domestically focused in social services, utilities and construction, while manufacturing firms are more inclined to cite that they are satisfied with their current market. This suggests that, in the absence of significant shifts in technology, culture or both, attempts to reduce the barriers to initial export entry are unlikely to influence the behaviour of the majority of non-exporters.

Although only a small proportion of firms that are not currently generating overseas income express an interest in doing so in future, absolute numbers of interested firms are significant relative to the existing population. Taking the population of 27,204 firms with no overseas income (table 1) and applying the levels of interest in future overseas income shown in table 4, implies that between 600 and 1,140 firms are actively looking at the potential for generating overseas income and a further 1,230-2,000 would be interested in exploring the options. In addition, between 440 and 1,050 firms could be considered "discouraged exporters" – firms that state that they are not currently interested/suitable, with the sole reason being that "costs and barriers are prohibitive" – and might, in principle, be responsive to policy interventions aimed at reducing these barriers. Together, these estimates suggest a population of around 3,200 "interested but non-engaged" firms – almost half the size of the population with current overseas income.

This raises the question of whether stated intentions to seek overseas income are borne out in reality. Table 6 summarises the transition rate into earning overseas income (restricted here to either exporting or significant tourism revenue)[22] in the following three years for firms that reported no overseas income in the 2007 and 2011 surveys, according to their reported level of interest. Among those firms that can be followed for the three years following each survey (around 48 percent of the 2007 (weighted) sample and 58 percent of the 2011 (weighted) sample), the observed probability of reporting export or tourism income income in the next four years ranges from seven (2007) and 19 (2011) percent among those firms which initially stated they were not interested in, or not suitable for, overseas income in 2007 to 43 (2007) and 47 (2011) percent among those that were actively pursuing foreign income and were expecting to realise that goal within 12 months. High attrition rates from the survey and wide standard errors for the entry proportions mean that these numbers should be seen as weak estimates of the true probability of entry. Attrition rates are lower when calculated on an unweighted (39 to 46 percent) or employment weighted (26 to 32 percent) basis, reflecting the lower probability of exit for larger firms as well as higher sampling proportions among those firms. To the extent that firm size and performance are correlated with export entry (see Fabling & Sanderson 2013), it is likely that the weighted estimates of market entry are, if anything, on the high side relative to what we would expect in the full population. In the next section we examine whether the probability of future entry is systematically related to firm characteristics at the time of the 2007 and 2011 surveys, focusing on the barriers and motivations those firms report.

4.2 Barriers and motivations among the non-engaged

This section focuses attention on the pool of firms that state that they are interested in earning overseas income but are not currently active, examining the factors that drive their interest and, conversely, those they perceive as barriers to their success. Among firms that are not currently generating overseas income but are interested in doing so in future, over half report that their interest is based on a "strategic decision to grow [their] existing business into new markets" (table 7). New opportunities are also an important reason given by firms for their interest in overseas markets, with around 34 percent of respondents noting new contacts or alliances and 17 percent noting new technologies as being a factor in opening up new market opportunities. A substantial number (around 20 percent) of firms also noted that they wanted to expand into foreign markets in order to

exporters and high rates of non-response.

[21] Correlation coefficient of 0.60 for any interest and 0.33 for active interest.

[22] Significant tourism revenue defined as more than 25 percent of total sales.

benefit from economies of scale, expecting that increasing their sales volume would lead to cost savings.[23]

Figure 5 reports the perceived barriers to overseas income generation among firms that are interested, but have no past or current overseas income. Firms are encouraged to mark all barriers that apply. Proportions across all industries are compared with those from the two sectors with the largest population of interested non-exporters: manufacturing and professional services. Across respondents as a whole (lower panel), around half report barriers due to a lack of experience with expanding beyond New Zealand and 35 percent report difficulties due to a lack of knowledge about specific overseas markets. In contrast, very few firms report that they anticipate difficulties with rapid expansion.[24] Response patterns differ somewhat between manufacturing and professional services firms, with manufacturing firms showing a higher tendency to report knowledge and experience related barriers (top panel) and services firms more likely to report barriers associated with distance (middle panel).

Table 8 compares perceived barriers according to the degree of interest that firms show in overseas income generation. This shows up three areas where those firms that have already been looking into overseas income generation differ significantly from those that are only mildly interested – firms that are actively looking are around 20 percent more likely to report difficulties due to a lack of experience, and 22 percent more likely to report linguistic and cultural barriers. In contrast, those firms that have not yet started exploring the options are more likely to report "other" barriers. This may reflect either increasing knowledge of actual barriers as firms begin to take a more active stance towards overseas engagement or selection into the "active" group. In particular, "other" barriers may include a lack of management resource to devote to exploring the possibilities of international engagement (alongside a range of other possible difficulties).[25] The 2015 International Engagement module specifically included an option of "limited managerial time or resources". This was the second-most common response among firms looking to commence or expand sales to overseas markets, selected by around 37 percent of firms.[26]

Returning to the population of firms that were interested in, but not currently earning, overseas income at the time of the 2007 and 2011 surveys, we see some differences in the probability of entry according to firms' reported motivations for entry. Table 9 reports predicted marginal effects from a logit model of the probability of observing either exports or significant income from tourism over the following three years, based on firms' responses to the 2007 and 2011 surveys.[27] As expected, the degree of interest in earning overseas income was strongly related to future export success, with firms reporting only an interest in exploring the options being 25 percentage points less likely to be observed exporting over the following three years. Overall economic conditions also seem to have affected entry rates, with respondents to the 2011 survey being 10 percentage points more likely to enter than those from the 2007 survey, for which the follow-up period coincided with the height of the Global Financial Crisis. With respect to motivations for exporting, firms were more likely to enter export markets if they reported that they had already reached the potential of the domestic market, or if new contacts or alliances had opened up new market opportunities. In contrast, there seems to be no systematic relationship between perceived barriers to overseas income generation and the probability of future entry (at least after controlling for the overall level of interest that firms had in future overseas income). This may reflect the uncertainties that firms face in predicting in advance what factors are likely to impede their ability to enter overseas markets.[28]

[23] Comparison of non-exporting firms' motivations according to whether they are actively pursuing overseas income or just interested in the possibility shows only one significant difference in motivations, with a strategic decision to expand being more commonly mentioned among those firms that are actively pursuing overseas income.

[24] This response may not be well correlated with actual experiences if firms are "surprised" by their success in international markets.

[25] Response rates to the barriers question were substantially higher among firms that were actively interested in pursuing overseas earnings, suggesting that until firms are thinking seriously about the issue they may not have a good idea about where the challenges lie.

[26] In the aggregate data released by Statistics New Zealand through Infoshare it is not possible to distinguish between non-exporters that are looking to enter overseas markets and current exporters who are looking to expand. Future work using the 2015 microdata would enable this comparison to be examined.

[27] This regression includes all firms that responded to the relevant questions, had appropriate performance data to use as controls, and could be tracked in the BOS survey in the three following years, not just to the representative cross-sectional sample. Regressions are unweighted but control for other key firm characteristics known to be associated with export entry – firm size, industry, capital intensity and multi-factor productivity.

[28] A number of alternative specifications were estimated, using alternative sets of controls for firm characteris-

4.3 Barriers among firms with current overseas income

This section turns attention to the barriers reported by those firms that are currently involved in overseas income generation. We tend to think of these as "non-binding" barriers – that is, as factors that are affecting firms' ability to generate overseas income but that have not prevented them from doing so. In some cases, however, the reported barriers may be binding, preventing firms from entering, or causing them to exit from, particular international markets or activities. As noted above, firms are asked to report on factors that made it difficult for the firm to generate overseas income over the last three financial years. In some cases, this may mean that firms are reporting issues that they have faced in earlier years but no longer see as a difficulty. This may occur either because the situation has changed (eg, exchange rates have fallen), because the firm has adjusted its behaviour to mitigate the difficulties (eg, they have started hedging against exchange rate volatility) or because they have adjusted the mix of activities they are involved in (eg, shifting export sales to countries with a favourable bilateral exchange rate or focusing on differentiated goods where competition is driven by factors other than price). Similarly, firms may also report barriers that they are currently facing in relation to activities they are considering for the future – for example, if a firm is already exporting goods but looking to move into providing supporting services, the barriers they report may be related to the new activity rather than the current one. However, if respondents consider the barriers question with reference to the factors that are currently uppermost in their minds, these responses seem likely to primarily reflect their current activities.

Figure 6 summarises the prevalence of reported barriers by predominant source of overseas income. While there are some differences in the patterns, the same four barriers come through as the most common in almost all activities: exchange rate levels, exchange rate volatility, distance from markets, and low market demand or increased competition in overseas markets.[29]

Table 10 reports the marginal effect of four explanatory variables from each of 13 separate regressions for the probability that a firm will report a given barrier. Firms that are relatively intensive exporters are less inclined to report a lack of knowledge or experience as a barrier, and also less likely to be concerned about access to distribution networks. However, they are more likely to identify exchange rates as a barrier, perhaps because changes in exchange rates have a larger impact on their total revenues than is the case for firms where exports are a relatively minor part of their business.[30] The pattern for years of export experience is similar, with firms that have a longer history of overseas income generation less likely to report barriers due to a lack of experience, but more likely to mention exchange rates levels and volatility.

Larger firms are somewhat more likely to report difficulties due to a lack of demand or high competition and foreign regulations or tariffs, and less likely to report difficulties associated with financing their expansion. Finally, firms in onshore industries are more likely to report limited knowledge of specific markets, and challenges associated with exchange rate levels and volatility. While the latter may imply that industries such as tourism feel exposed to the impact of exchange rate fluctuations on tourist numbers, a particular concern with market knowledge could reflect concerns about country-specific marketing, or a desire to become more involved in offshore activities (eg, in the education sector).

Comparison of figures 5 and 6 suggests that perceived barriers differ substantially between firms that are currently earning overseas income and those that are interested in doing so in the future. Figure 7 provides a more formal comparison between the two groups. As discussed above, among non-engaged firms, the most commonly reported barriers relate to informational gaps (limited experience in expanding beyond New Zealand and limited knowledge about specific markets), financial constraints (limited access to finance for expansion beyond New Zealand), and limited access to distribution networks. These barriers can largely be thought of as affecting the costs of entry into new markets, rather than the ongoing returns. In contrast, those firms that are currently engaged tend to report barriers that affect either the returns to, or the ongoing costs of, dealing with foreign customers.[31]

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tics and differences in the estimation sample. The results were largely insensitive to these variations.

[29]Controlling for compositional differences in firm size, export intensity, experience and whether the firm is in an industry which is likely to be earning income onshore (eg, tourism) across income sources has little effect on the estimated proportions. Previous firm-level research using merchandise trade data has explored exchange rate impacts on export values, export propensity, and unit values in detail (see, Fabling & Sanderson 2015a,b).

[30]Alternatively, it may simply be that firms implicitly rank the possible responses in order of importance, and select the top few categories as their responses. If experienced firms have largely "solved" the problems of knowledge and market access, exchange rate conditions are more likely to reach the threshold required to be reported.

[31]These differences do not simply reflect selection on observable characteristics. Controlling for industry and

We also consider the difference in reported barriers across firms that are already involved in income generation according to their level of interest in further expansion. Table 11 provides the results, which show a similar pattern to those observed for non-exporters in table 8. For most barriers, the proportion of responses is positively correlated with the level of interest in expanding overseas income.[32] The main exception is "other" barriers, where the relationship is reversed.

As usual, however, interpretation of these barriers is somewhat complicated by the general nature of the questions asked. It is tempting to infer that firms that have an underlying desire to expand tend to put themselves further beyond their comfort zone, and hence encounter barriers that are not relevant for those firms that are less active in developing new markets. For example, factors such as lack of market knowledge, unfamiliarity with the language and culture of potential trade partners, and restrictions due to foreign regulations and tariffs are likely to become more significant once firms are actively exploring options to enter additional markets. However, it is also possible to conclude that firms that experience these barriers in their existing markets feel that these are impeding their current international activities, with their desire to expand driven by a sense of frustration.

Finally, we relate reported barriers (and other firm characteristics) among firms with current overseas income to the probability of additional export market entry in future, analogous to the regression reported in table 9 for firms with no overseas income. Market entry is identified using the Module A question "Over the last financial year, did this business enter any new export markets?". As such, it is a very partial proxy for whether firms have expanded their overseas income, as the latter should also include expansions of income from existing overseas markets and onshore earnings from activities such as tourism and export education. However, estimates of the actual dollar value of overseas earnings are likely to be noisy, as they would be based on combining the firms' estimate of the proportion of sales that came from exports in Module A with an external measure of the value of total sales. We therefore use the simpler proxy of new market entry, despite its limited scope.

Table 12 reports attrition rates and new entry market rates for firms with current overseas income, comparable to those in table 6. Attrition rates are roughly ten percent lower for firms with current overseas income, compared to those reporting no overseas income in the same year. This is likely a reflection of the larger average size of current exporters, associated with both higher survival rates and a higher sampling rate for the BOS survey. Of the firms which can be tracked, the proportion of firms which achieved their 2007 goal over the following three years was very similar for those looking to commence earning overseas income and those looking to expand their existing overseas income. In contrast, the probability of entering additional markets for firms in the 2011 survey was substantially lower than the probability of commencing export or significant tourism sales, for a given level of interest.

Table 13 provides a comparison to table 9, but includes responses to a question on "strategies" the firm has used to generate overseas income, rather than the motivations they have for seeking overseas income in future. We also control for the share of overseas income in total income at the time of the survey. As seen for firms with no overseas income, the level of interest that firms have in expanding their overseas income is a significant predictor of future market entry. However, there is a noticeable contrast in terms of the predictive power of reported barriers. Four reported barriers show up as being significant predictors of future market expansion among those with current overseas income: Market entry is more likely among firms that are concerned by exchange rate volatility and language and cultural barriers, and less likely among firms concerned about having limited experience of expanding beyond New Zealand and those concerned about low market demand or increased competition in overseas markets. Only two reported strategies are significantly related to future export market entry: offering innovative or unique goods or services, and entering one market to access another market. While it is impossible to draw any strong conclusions regarding the barriers and strategies that may be holding firms back, these results point towards firms which are already succeeding in innovative or niche markets and which have definite plans for expansion having a nigher chance of expanding further, even after controlling for their current level of overseas income, interst in expansion, and quantitative measures of firm performance such as size and productivity. In contrast, strategies which seem to rely on a degree of luck or path dependence (eg, use of existing contacts, or relying on specific opportunities or conditions) are neither positively or negatively associated with future market entry. Similarly, some of the barriers which might seem most

firm size has little impact on the estimated proportions. All significant differences remain.

[32]Controlling for onshore industries, firm size, years of experience and high share of overseas earnings affects estimated proportions but makes little qualitative difference. The exception is for the exchange rate level where controlling for these other firm characteristics negates the observed gradient between level of interest and probability of reporting a given barrier.

amenable to government action, such as a lack of access to finance, overseas regulations or tariffs, or a lack of market specific knowledge also show no significant relationship with future market expansion.

4.4 Binding barriers – Reasons for exit

Finally, we turn to those barriers that are known to bind on firms' ability to generate overseas income. Specifically, we consider the reasons that firms give for exiting – either from specific offshore markets or from overseas income generation in general.

It is important to note at this stage that item non-response rates are very high for firms that have had overseas income in the past but not in the last financial year. This appears to be due to recall difficulties – almost all of the firms that failed to give a reason for (complete) exit also failed to answer questions on when they began and ceased earning overseas income and the source of that income, but many of these firms successfully answered the question on their future plans.[33] This suggests that some respondents are aware that the firm has had overseas income in the past but are not aware of the details, perhaps because they were not at the firm in the relevant period. In contrast, their current knowledge of the firm allows them to indicate whether there are plans to be involved in future. For this reason, reasons for exit are reported despite the very high rate of missing responses, as the reported reasons may still provide a reasonable indication for the subset of firms with recent overseas income.

Table 14 summarises each of the eight possible responses for why firms had ceased some, or all, overseas income generating activities. Firms that have exited specific markets but maintain some overseas income generation tend to report a greater number of reasons in total, and the relative prevalence of each reason also differs. Exit from specific markets is most commonly associated with increased competition or falling market demand, a response given by almost half the respondents. Other important factors included the exchange rate level and lower-than-expected profitability (around 30 percent of respondents in each). In contrast, the most common response among firms that exited completely was that they had completed the specific orders or jobs in which they had been engaged (29 percent), perhaps suggesting a more passive approach to overseas income generation. Exiting firms also reported difficulties with falling demand or increased competition, and a substantial proportion noted that none of the options fitted their circumstances (around 25 percent of respondents in each). Other commonly reported reasons for complete exit were a "change in ownership or strategic direction" and "profitability lower than expected".

5 Conclusions

A number of challenges face governments that are looking to support overseas income generation. One of these is how to focus attention between policy measures aimed at allowing existing exporters to maintain and increase their overseas earnings, and strategies to assist new firms into exporting. While many policies (such as those aimed at reducing tariffs and transport costs) will affect both types of firms, others (such as information provision and supported trade missions) may be more relevant as firms first look to expand beyond New Zealand or attempt to expand into new countries and activities.

This paper examines the differences in perceived barriers across groups of firms according to their current level of involvement or interest in overseas income generation. Among firms that are not already generating overseas income, there is little appetite to move towards greater international engagement. Over 90 percent of non-engaged firms state that they are either not interested in, or not suitable for, overseas income generation. Common reasons cited for this lack of interest are a need for physical proximity to customers, or satisfaction with the opportunities available in the domestic market.

Despite this, the absolute number of firms with no current overseas income that are either actively seeking or are interested in exploring the possibilities for overseas income generation is sizeable compared to the current stock of engaged firms. Moreover, a sizeable number of those firms that expressed an interest, and particularly those that were actively exploring the options for overseas income generation, appear to have successfully

[33] For a small number of firms we were also able to use past BOS responses to consider whether failure to respond was correlated with recency of past exports. This provided some support to the assumption that recall issues may be important for historical exporters.

entered at least one export market in the three years following the surveys. However, that leaves a lot of room for disappointment – even among firms which reported that they were actively working towards earning overseas income and expecting to see some result within the next twelve months, over 40 percent reported no exports or significant tourism earnings in the following three years.

Reported barriers to overseas income generation differ both by firms' level of experience and their level of interest. Among non-engaged firms, the most commonly reported barriers relate to a lack of experience in expanding beyond New Zealand, a lack of knowledge about specific markets and difficulty accessing finance for expansion. Firms that are interested in overseas income but are not actively considering it report a lower number of barriers overall, but are more inclined to cite "other" barriers, which may include a lack of managerial resources to devote to expansion. Similarly, among current exporters, level of interest in further expansion is positively correlated with the probability of reporting barriers, with the exception of "other" barriers. Consistent with the greater level of experience that these firms have already gained, factors such as experience and market knowledge are less commonly reported by this group, with exchange rate levels and volatility coming to the fore alongside distance to markets and a lack of demand or strong competition in overseas markets.

These barriers are also reflected in firms' reported reasons for exiting from specific overseas markets, with nearly half of the firms that had left one or more markets citing falling market demand or increased competition as a reason for exit. Lower than expected profitability and exchange rate conditions were also common reasons for market exit. In contrast, relatively few firms cited exchange rate conditions as a factor in their decision to exit foreign markets altogether. Although it is difficult to draw conclusions about the motivation of firms which exited completely due to high non-response rates, to the extent that information is available, complete exits appear to have been driven more by changes in demand conditions or strategic direction, or occur because firms have completed a specific order or job.

Looking ahead at future entry propensity, there is no apparent relationship between the types of barriers reported by firms with no overseas income and the probability that they will successfully enter exporting or tourism in the three years following the survey. Factors which were significantly related to future export propensity included the level of interest in overseas income generation, a perception of having reached the potential of the domestic market, and having new contacts or alliances opening up new market opportunities. Among firms with current overseas income, a number of barriers and strategies are significantly associated with the probability of entering additional markets in future, with market expansion more likely among firms which were concerned about exchange rate volatility, that offered innovative or unique goods or services, or that took a strategy of entering one market in order to access another, and less likely among firms that were concerned about a lack of experience in expanding beyond New Zealand, or about low market demand or increased competition in overseas markets.

This paper draws primarily on cross-sectional data from BOS2011, providing a descriptive account of the barriers and motivations reported by firms with respect to generating overseas income. It also includes a simple analysis of realised outcomes, showing that intentions do not always come to fruition. Complementary research completed by researchers at the New Zealand Centre for Small and Medium Enterprise Research at Massey University (Deakins et al., 2013), draws out qualitative background to the empirical patterns presented here based on in-depth interviews with 98 selected firms. These qualitative results help to provide a more nuanced picture of the specific factors which underlie the quantitative results, including insights into how firms are addressing the challenges of entering international markets.

Future research could expand the empirical analysis presented in this paper by utilising linked Overseas Merchandise Trade data within the LBD to provide further detail on the timing, destinations and value of firms' goods exports. With two comparable observations of the international module available, further analysis could also consider the role of factors external to the firm, such as exchange rate fluctuations and international market conditions, in explaining reported barriers and realised outcomes. Finally, a substantially reworked International Engagement module was included in BOS 2015, sponsored by Treasury, the Ministry of Foreign Affairs and Trade, and the Ministry of Business, Innovation and Employment. While the revisions make the 2015 module largely incomparable with previous modules, they address some of the weaknesses of the 2007 and 2011 modules discussed in section 2 of this paper and present new opportunities for research on firms' international engagement activities.

Tables and figures

Tables

Table 1: Population counts

	Raw counts		Weighted counts	
	N(firms)	Share	N(firms)	Share
Current overseas income	1,536	(0.30)	6,711	(0.19)
Past overseas income	228	(0.04)	1,581	(0.04)
No overseas income	3,417	(0.66)	27,204	(0.77)
Total	5,181	(1.00)	35,499	(1.00)

All firm counts random rounded base 3 in accordance with Statistics New Zealand confidentiality requirements.

Table 2: Sources of overseas income

	Raw count	Weighted count	Share of pop.	Share of firms w/ o.s income
Business goods	711	2,631	0.08	0.40
Consumer goods	237	1,074	0.03	0.16
Raw goods	60	249	0.01	0.04
Overseas goods	249	1,248	0.04	0.19
Services	444	2,082	0.06	0.32
IP	96	360	0.01	0.05
Assets	24	75	0.00	0.01
Other	63	285	0.01	0.04

Weighted counts. Firms may report multiple income sources. Proportions calculated excluding firms that failed to indicate the source of overseas earnings (2%).
<u>Definitions:</u> *Business goods:* sales of goods manufactured, processed or finished in New Zealand, primarily for use by other businesses. *Consumer goods:* sales of goods manufactured, processed or finished in New Zealand, primarily for personal or household use. *Raw goods:* sales of raw, unprocessed materials from New Zealand. *Overseas goods:* sales of goods manufactured, processed or finished overseas. *Services:* provision of services. *IP:* licensing or franchising arrangements and royalties, including for the use of technology. *Assets:* earnings from assets. *Other:* other.

Table 3: Industry distribution of overseas income generating activities

Panel A: Industry share of firms by predominant income source (column percentages add to one)

	Sales of goods: business	consumer	raw	overseas	multiple	Sales of services:	Sales of goods and services:	Other:	Total:
Primary (A,B)	0.07	0.21	0.90	0.09	0.07	0.02	0.03	0.17	0.11
Manufacturing (C)	0.59	0.41	0.02	0.09	0.52	0.02	0.18	0.17	0.30
Utililties & construction (D,E)	0.03	0.00	0.03	0.05	0.00	0.01	0.01	0.00	0.02
Wholesale & retail trade (F,G)	0.17	0.25	0.02	0.67	0.32	0.01	0.28	0.16	0.21
Accommodation & food services (H)	0.00	0.08	0.00	0.00	0.00	0.29	0.28	0.04	0.09
Transport & communications (I,J)	0.02	0.02	0.00	0.00	0.02	0.10	0.03	0.07	0.04
Professional services (K,L,M,N)	0.11	0.02	0.05	0.09	0.03	0.46	0.17	0.33	0.20
Education (P)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.02	0.02
Social & recreational services (Q,R,S)	0.01	0.01	0.00	0.00	0.04	0.01	0.03	0.02	0.01
Total	1,977	753	177	822	408	1,635	216	726	6,711

Panel B: Income source share of firms by industry (row percentages add to 1)

	Sales of goods: business	consumer	raw	overseas	multiple	Sales of services:	Sales of goods and services:	other	Total
Primary (A,B)	0.19	0.22	0.22	0.11	0.04	0.05	0.01	0.17	729
Manufacturing (C)	0.59	0.16	0.00	0.04	0.11	0.02	0.02	0.06	1,983
Utilities & construction (D,E)	0.47	0.00	0.05	0.37	0.00	0.08	0.03	0.00	114
Wholesale & retail trade (F,G)	0.24	0.14	0.00	0.39	0.09	0.02	0.04	0.08	1,407
Accommodation & restaurants (H)	0.00	0.10	0.00	0.00	0.00	0.75	0.10	0.05	624
Transport & communications (I,J)	0.12	0.04	0.00	0.00	0.03	0.59	0.02	0.19	270
Professional services (K,L,M,N)	0.16	0.01	0.01	0.05	0.01	0.55	0.03	0.18	1,341
Education (P)	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.12	147
Social services (Q,R,S)	0.25	0.06	0.00	0.00	0.19	0.25	0.06	0.19	96
Total	0.29	0.11	0.03	0.12	0.06	0.24	0.03	0.11	6,711

Proportions based on weighted counts, random rounded base 3 in accordance with Statistics New Zealand confidentiality requirements. See notes from table 2 for definition of income sources.

Table 4: Interest in future overseas income by broad industry, firms reporting no current or past overseas income

	Actively exploring	Interested in exploring	Not interested or not suitable	Weighted count
Primary (A,B)	0.011	0.049	0.940	2,214
	[0.003]	[0.017]	[0.018]	
Manufacturing (C)	0.054	0.097	0.849	2,565
	[0.010]	[0.014]	[0.017]	
Utilities & construction (D,E)	0.036	0.061	0.903	3,123
	[0.019]	[0.025]	[0.030]	
Wholesale & retail trade (F,G)	0.009	0.061	0.931	5,094
	[0.006]	[0.018]	[0.018]	
Accommodation & food services (H)	0.033	0.075	0.893	3,339
	[0.020]	[0.031]	[0.036]	
Transport & communications (I,J)	0.013	0.039	0.944	1,383
	[0.004]	[0.010]	[0.011]	
Professional Services (K,L,M,N)	0.063	0.064	0.873	4,197
	[0.013]	[0.012]	[0.017]	
Education (P)	0.083	0.093	0.829	618
	[0.028]	[0.028]	[0.038]	
Social & recreation services (Q,R,S)	0.024	0.014	0.962	3,387
	[0.009]	[0.004]	[0.010]	
Total	0.032	0.059	0.908	25,914
	[0.005]	[0.007]	[0.008]	

Standard errors in brackets. Significance tests for probability of having some interest in overseas income show that social services firms are significantly less likely to be interested in overseas income than all industries except primary and transport (at the 10% level or lower). Manufacturing, professional services and education firms all have a higher probability of being interested than those in the transport and communications, wholesale and retail trade, and primary industries, but do not differ significantly from each other.

Definitions: *Actively exploring:* initiatives underway and overseas income anticipated within the next 12 months or/ actively exploring the options. *Interested in exploring:* no action currently but interested in exploring options. *Not interested or not suitable:* not currently interested or business not suitable for overseas income.

Table 5: Reported reason for lack of interest/ability in overseas income generation, firms reporting no current or past overseas income

	costs/barriers prohibitive		proximity required		NZ specific demand		limited business role		NZ market sufficient		N(firms)
Primary (A,B)	0.062	[0.020]	0.381	[0.039]	0.157	[0.031]	0.193	[0.036]	0.479	[0.043]	2,082
Manufacturing (C)	0.182	[0.022]	0.535	[0.029]	0.102	[0.018]	0.109	[0.018]	0.505	[0.029]	2,178
Utilities & construction (D,E)	0.069	[0.026]	0.779	[0.044]	0.097	[0.033]	0.055	[0.024]	0.367	[0.052]	2,820
Wholesale & retail trade (F,G)	0.044	[0.015]	0.495	[0.041]	0.160	[0.029]	0.137	[0.022]	0.421	[0.041]	4,737
Accommodation & food services (H)	0.047	[0.028]	0.573	[0.064]	0.096	[0.039]	0.098	[0.038]	0.277	[0.059]	2,979
Transportation & communications (I,J)	0.042	[0.018]	0.507	[0.052]	0.196	[0.040]	0.093	[0.026]	0.381	[0.052]	1,311
Professional services (K,L,M,N)	0.074	[0.015]	0.403	[0.030]	0.267	[0.028]	0.123	[0.017]	0.410	[0.031]	3,663
Education (P)	0.065	[0.029]	0.547	[0.057]	0.182	[0.044]	0.129	[0.037]	0.347	[0.056]	510
Social and recreational services (Q,R,S)	0.037	[0.011]	0.715	[0.026]	0.186	[0.022]	0.078	[0.016]	0.246	[0.025]	3,258
Total	0.066	[0.007]	0.550	[0.015]	0.162	[0.011]	0.111	[0.009]	0.379	[0.015]	23,541

Standard errors in brackets. Proportions based on weighted counts, random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Firms may give multiple responses. Definitions: *costs/barriers prohibitive:* costs, risks or barriers are prohibitive. *proximity required:* the nature of this business relies on physical proximity to its customers. *NZ specific demand:* goods or services satisfy demand specific only to New Zealand. *limited business role:* role in business structure is limited to the New Zealand market. *NZ market sufficient:* New Zealand market is sufficient.

Table 6: Share of firms reporting no current or past overseas income in 2007 and 2011 surveys that report exports or significant earnings from tourism in following three years, by reported interest.

Firms reporting no overseas income in 2007

	Proportion of firms	Of which, lost to attrition	Of remainder, entrants	Proportion of employment	Of which, lost to attrition	Of remainder, entrants
Initiatives underway	0.011	0.790	0.571	0.025	0.390	0.520
Actively exploring	0.014	0.397	0.303	0.014	0.361	0.272
Interested in exploring	0.064	0.579	0.203	0.055	0.451	0.128
Not interested/suitable	0.910	0.516	0.069	0.906	0.312	0.079
N(weighted)	26,271	0.521				
N(unweighted)	3,345	0.459		166,700	0.322	

Firms reporting no overseas income in 2011

	Proportion of firms	Of which, lost to attrition	Of remainder, entrants	Proportion of employment	Of which, lost to attrition	Of remainder, entrants
Initiatives underway	0.012	0.563	0.533	0.014	0.476	0.464
Actively exploring	0.020	0.574	0.440	0.018	0.214	0.373
Interested in exploring	0.059	0.513	0.212	0.055	0.250	0.190
Not interested/suitable	0.908	0.407	0.195	0.913	0.262	0.158
N(weighted)	25,914	0.419				
N(unweighted)	3,285	0.386		153,000	0.264	

Firm counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Columns 1-3 refer to the weighted proportion of firms reporting reporting a given level of interest in earning overseas income in future, the proportion of those firms lost to attrition in the following three years, and the proportion of those firms which were not lost to attrition that report exports and/or significant tourism income in the BOS surveys of the following three years. Columns 4-6 present the same statistics, weighted by initial employment rather than sampling weights. Unweighted total firm counts and proportion lost to attrition are reported in the bottom row of each panel.

Table 7: Motivation for considering overseas income among interested firms with no current or past overseas income

Motivation	Proportion	Std error
no domestic market for goods and services	0.028	[0.007]
reached maximum potential of domestic market	0.145	[0.028]
strategic decision to grow existing business into new markets	0.570	[0.043]
to obtain cost savings from increasing volume of sales	0.216	[0.034]
able to obtain higher prices overseas	0.134	[0.024]
new technologies have opened up new market opportunities	0.171	[0.031]
new business contacts or alliances have opened up new market opportunities	0.339	[0.040]
existing New Zealand customers moved offshore	0.038	[0.011]
none of the above	0.129	[0.033]

Standard errors in brackets. Proportions based on weighted counts, random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Firms may give multiple responses. Item non-response: 11%. Excludes firms with past overseas income.

Table 8: Perceived barriers among firms with no current or past overseas income, by level of interest

	Actively exploringt		Interested in exploring	
limited experience in expanding beyond New Zealand	0.631	[0.071]	0.431	[0.061]**
limited knowledge about specific markets	0.418	[0.079]	0.326	[0.057]
limited access to finance for expansion beyond New Zealand	0.402	[0.076]	0.311	[0.060]
limited access to distribution networks	0.393	[0.078]	0.232	[0.063]
exchange rate volatility	0.246	[0.074]	0.237	[0.067]
exchange rate level	0.164	[0.075]	0.169	[0.063]
distance from markets	0.295	[0.066]	0.192	[0.042]
language and cultural differences	0.307	[0.081]	0.084	[0.028]***
low demand or increased competition in overseas markets	0.176	[0.052]	0.150	[0.041]
overseas government regulations or tariffs	0.234	[0.067]	0.141	[0.054]
inability to rapidly increase supply	0.094	[0.035]	0.056	[0.022]
other	0.094	[0.041]	0.237	[0.054]***

Standard errors in brackets. Proportions based on weighted counts, random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Firms may give multiple responses. Results are qualitatively similar after controlling for industry and firm size. Item non-response: 15%. Proportions for Active and Inactive interest are significantly different at the *** 1%; ** 5% level. Definitions: *Actively exploring:* initiatives underway and overseas income anticipated within the next 12 months or/ actively exploring the options. *Interested in exploring:* no action currently, but interested in exploring options.

Table 9: Average marginal effects on probability of observing exports or significant tourism in following three years, firms with no current or past overseas income in 2007 and/or 2011

	dy/dx	Std Err
Level of interest*		
actively exploring the options	-0.065	0.101
interested in exploring the options	-0.250***	0.085
Year		
2011	0.109**	0.053
Reported barriers		
limited experience expanding beyond New Zealand	-0.076	0.070
limited knowledge of specific markets	0.055	0.070
limited access to finance for expansion beyond New Zealand	-0.064	0.075
limited access to distribution networks	0.068	0.069
exchange rate volatility	-0.014	0.088
exchange rate level	0.120	0.138
distance from markets	-0.010	0.066
language and cultural differences	0.003	0.122
low market demand or increased competition in overseas markets	-0.063	0.075
overseas government regulations or tariffs	0.026	0.079
inability to rapidly increase supply	-0.057	0.106
other	-0.001	0.076
barriers missing	-0.102	0.104
Motivations for entry		
no domestic market for goods and services	0.180	0.177
reached potential of domestic market	0.134*	0.077
strategic decision to grow existing business into new markets	0.066	0.079
to obtain cost savings from increasing volume of sales	0.020	0.072
able to command higher prices overseas	0.130	0.085
new technologies opened up new market opportunities	-0.022	0.080
new business contacts or alliances opened up new market opportunities	0.145**	0.065
existing NZ customers moved offshore	0.169	0.120
none of the above	0.052	0.130
motivation missing	0.134	0.116
N(unweighted)	303	

*Excluded category: initiatives underway and overseas income anticipated within the next 12 months. Average marginal effects are calculated as the average difference across individuals in the estimated probability of future exporting or tourism when hypothetically setting each response item to be positive or negative, while controlling for their other observed characteristics and responses to other questions. Regressions also include controls for 1 digit industry, firm size, capital intensity and multifactor productivity (not shown). In 2007 the response item "to obtain cost savings from increasing volume of sales" was worded as "to obtain economies of scale from existing capacity". Firm counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Significant at: *** 1%; ** 5%; * 10%.

Table 10: Marginal effects of firm characteristics on reported barriers, firms with current overseas income

	onshore industry	high export intensity	log employment	log years of experience
limited experience in expanding beyond New Zealand	0.130	-0.185***	-0.018	-0.031*
	[0.095]	[0.046]	[0.016]	[0.018]
limited knowledge about specific markets	0.279***	-0.120***	0.000	0.005
	[0.096]	[0.039]	[0.016]	[0.022]
limited access to finance for expansion beyond New Zealand	0.027	-0.009	-0.047**	-0.001
	[0.096]	[0.050]	[0.021]	[0.016]
limited access to distribution networks	0.065	-0.137***	-0.020	0.003
	[0.108]	[0.053]	[0.017]	[0.019]
exchange rate volatility	0.243***	0.247***	-0.001	0.071***
	[0.085]	[0.043]	[0.016]	[0.027]
exchange rate level	0.311***	0.250***	-0.021	0.076***
	[0.091]	[0.043]	[0.017]	[0.026]
distance from markets	0.059	0.038	0.004	0.036
	[0.108]	[0.050]	[0.017]	[0.025]
language and cultural differences	-0.013	0.007	0.003	0.019
	[0.064]	[0.032]	[0.011]	[0.015]
low market demand and/or increased competition in overseas markets	0.145	0.009	0.027*	0.004
	[0.115]	[0.054]	[0.016]	[0.025]
overseas government regulations or tariffs	0.049	0.032	0.037***	0.013
	[0.082]	[0.025]	[0.007]	[0.016]
inability to rapidly increase supply	0.018	0.079***	0.013*	0.011
	[0.071]	[0.026]	[0.007]	[0.012]
other	-0.021	-0.089*	-0.006	-0.015
	[0.082]	[0.048]	[0.017]	[0.018]
none reported	0.020	0.027	-0.022	-0.034**
	[0.038]	[0.022]	[0.016]	[0.013]

Standard errors in brackets. *,**,***: significant at 10%, 5%, 1% level. Each row reports results from a separate regression.

Table 11: Reported barriers among firms with current overseas income, by intentions to expand

	(1) initiatives underway		(2) actively exploring		(3) interested, no action		(4) not currently interested	
limited experience in expanding beyond New Zealand	0.188	[0.032]	0.169	[0.034]	0.222	[0.041]	0.158	[0.047]
limited knowledge about specific markets	$0.271^{2,4}$	[0.044]	0.145^{1}	[0.031]	0.197^{4}	[0.035]	$0.071^{1,3}$	[0.036]
limited access to finance for expansion beyond New Zealand	0.169	[0.033]	0.125	[0.031]	0.164	[0.036]	0.099	[0.041]
limited access to distribution networks	0.153	[0.028]	0.221	[0.045]	0.147	[0.030]	0.135	[0.047]
exchange rate volatility	$0.516^{3,4}$	[0.049]	$0.416^{3,4}$	[0.053]	$0.236^{1,2}$	[0.049]	$0.254^{1,2}$	[0.042]
exchange rate level	$0.431^{3,4}$	[0.051]	0.374^{4}	[0.054]	0.278^{1}	[0.056]	$0.239^{1,2}$	[0.043]
distance from markets	0.401^{4}	[0.049]	0.304	[0.045]	0.297	[0.043]	0.240^{1}	[0.042]
language and cultural differences	$0.185^{2,3,4}$	[0.034]	0.106^{1}	[0.029]	0.097^{1}	[0.036]	0.061^{1}	[0.026]
low market demand and/or increased competition in overseas markets	0.317	[0.049]	0.351	[0.047]	0.325	[0.045]	0.347	[0.050]
overseas government regulations or tariffs	$0.162^{3,4}$	[0.032]	0.132^{3}	[0.029]	$0.067^{1,2}$	[0.017]	0.080^{1}	[0.025]
inability to rapidly increase supply	0.110	[0.031]	0.099	[0.029]	0.064	[0.029]	0.055	[0.018]
other	$0.103^{3,4}$	[0.024]	$0.119^{3,4}$	[0.031]	$0.206^{1,2}$	[0.041]	$0.309^{1,2}$	[0.052]

Standard errors in brackets. Superscripts indicate group proportions that are significantly different at the ten percent level or below. For example, in row 2, column 1, there is a statistically significant difference in the probability of reporting a lack of knowledge of specific markets between firms with initiatives underway (column 1) and those that are actively exploring or not currently interested in earning overseas income (columns 2 and 4).

Table 12: Share of firms reporting current overseas exports in 2007 and/or 2011 surveys which report entering a new export market in following three years, by reported interest.

Firms reporting current overseas income in 2007

	Proportion of firms	Of which, lost to attrition	Of remainder, entrants	Proportion of employment	Of which, lost to attrition	Of remainder, entrants
Initiative underway	0.306	0.412	0.566	0.388	0.149	0.641
Actively exploring	0.212	0.342	0.343	0.246	0.293	0.179
Interested in exploring	0.181	0.538	0.234	0.100	0.317	0.098
Not interested/suitable	0.301	0.426	0.059	0.265	0.187	0.124
N(weighted)	7,071	0.423				
N(unweighted)	1,587	0.391		179,800	0.212	

Firms reporting current overseas income in 2011

	Proportion of firms	Of which, lost to attrition	Of remainder, entrants	Proportion of employment	Of which, lost to attrition	Of remainder, entrants
Initiative underway	0.321	0.308	0.454	0.456	0.115	0.512
Actively exploring	0.207	0.318	0.353	0.144	0.297	0.357
Interested in exploring	0.178	0.354	0.194	0.103	0.223	0.116
Not interested/suitable	0.295	0.347	0.135	0.297	0.256	0.144
N(weighted)	6,579	0.330				
N(unweighted)	1,515	0.325		182,700	0.195	

Firm counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Columns 1-3 refer to the weighted proportion of firms reporting reporting a given level of interest in expanding their overseas income in future, the proportion of those firms lost to attrition in the following three years, and the proportion of those firms which were not lost to attrition that report entering a new export market in the BOS surveys of the following three years. Columns 4-6 present the same statistics, weighted by initial employment rather than sampling weights. Unweighted total firm counts and proportion lost to attrition are reported in the bottom row of each panel.

Table 13: Average marginal effects on probability of reporting new market entry in following three years, firms with current overseas income in 2007 and/or 2011

	dy/dx	Std Err
Level of interest*		
actively exploring the options	-0.089***	0.033
interested in exploring the options	-0.212***	0.037
Year		
2011	0.007	0.027
Overseas share of total income	0.040	0.045
Barriers		
limited experience expanding beyond New Zealand	-0.114***	0.042
limited knowledge of specific markets	0.025	0.037
limited access to finance for expansion beyond New Zealand	0.007	0.044
limited access to distribution networks	0.054	0.037
exchange rate volatility	0.072**	0.034
exchange rate level	-0.029	0.036
distance from markets	0.043	0.030
language and cultural differences	0.075*	0.040
low market demand or increased competition in overseas markets	-0.089***	0.030
overseas government regulations or tariffs	0.022	0.037
inability to rapidly increase supply	-0.016	0.040
other	-0.007	0.049
barriers missing	0.042	0.069
Strategies		
offering innovative or unique goods or services	0.052*	0.029
customising goods or services to specific customer requirements	0.013	0.031
customising advertising and promotion according to market	0.017	0.038
adopting a strategy of low prices	0.031	0.045
exporting or selling overseas only when external conditions are favourable	0.076	0.069
exporting or selling overseas only when specific opportunities arise	0.032	0.036
systems in place to manage exchange rate risks	0.045	0.032
entering one market to access another market	0.198***	0.070
using pre-existing contacts or networks in overseas markets	-0.021	0.028
N(unweighted)	1,080	

*Excluded category: initiatives underway and overseas income anticipated within the next 12 months. Regressions also include controls for 1 digit industry, firm size, capital intensity and multifactor productivity (not shown). Significant at: *** 1%; ** 5%; * 10%. Firm counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Average marginal effects are calculated as the average difference across individuals in the estimated probability of future export market entry when hypothetically setting each response item to be positive or negative, while controlling for their other observed characteristics and responses to other questions.

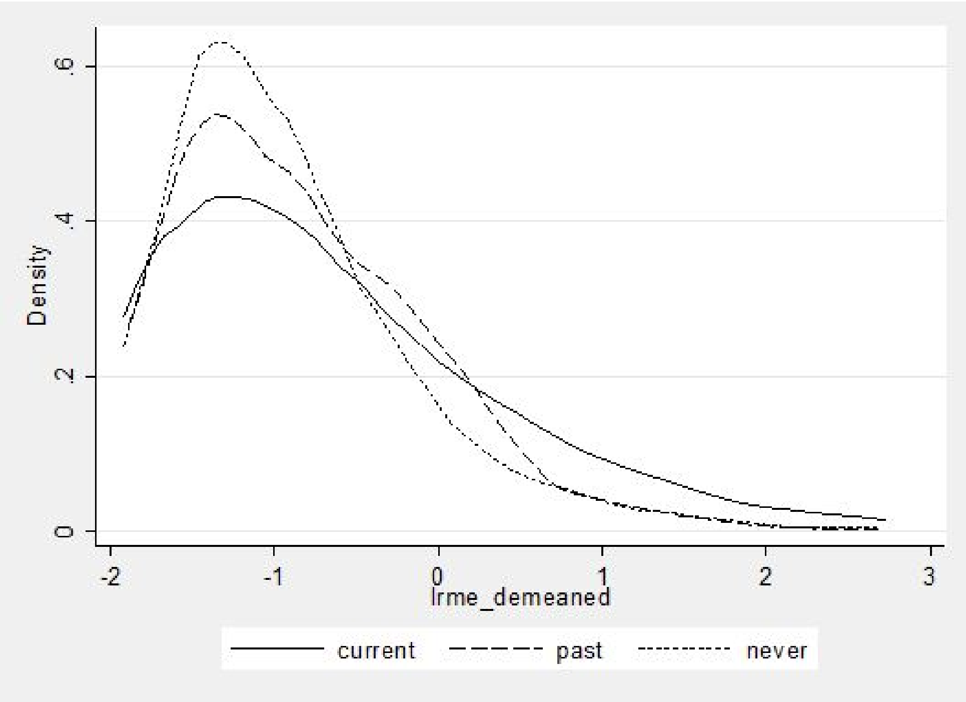
Table 14: Reported reasons for exit, firms with current or past overseas income

	market exit		total exit	
exchange rate volatility	0.239	[0.047]	0.080	[0.029]***
exchange rate level	0.315	[0.055]	0.114	[0.033]***
low demand/high competition	0.479	[0.058]	0.255	[0.057]***
foreign regulations/tariffs	0.084	[0.021]	0.019	[0.010]***
change in ownership/direction	0.118	[0.029]	0.221	[0.060]
specific order completed	0.193	[0.044]	0.285	[0.051]
profitability lower than expected	0.286	[0.061]	0.221	[0.054]
none of the above	0.097	[0.027]	0.255	[0.057] **
N. firms(raw)	192		165	
N. firms (weighted)	714		1,128	

Item non-response: 1.5% for market exit, 27.2% for complete exit. Firm counts random rounded base three as per Statistics New Zealand confidentiality requirements. *; **; *** indicate that proportions for market exit and total exit are significantly different at the 10%; 5%; and 1% level respectively. Definitions: *low demand/high competition:* increased competition or falling market demand. *foreign regulations/tariffs:* increased overseas government regulations or tariffs (eg, import duties, product standards). *change in ownership/direction:* change in ownership or strategic direction. *specific order completed:* specific orders or jobs completed. Other categories described as per survey.

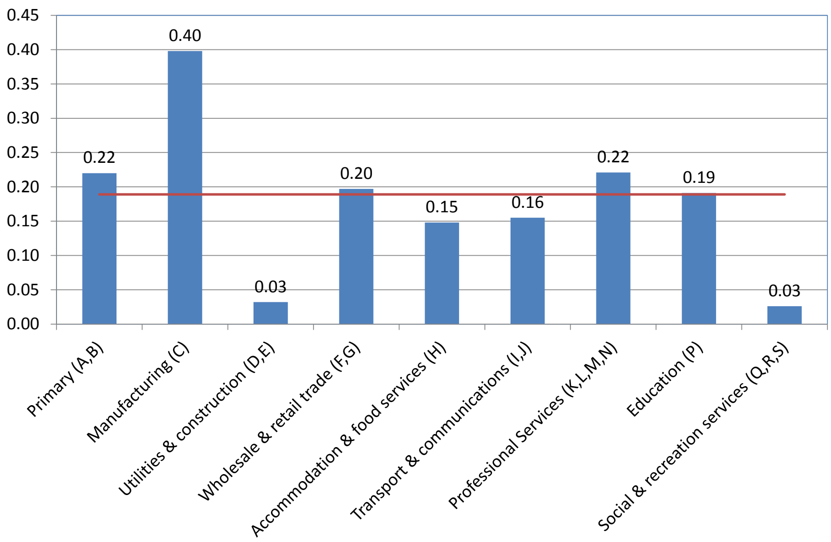
Figures

Figure 1: Kernel density of log employment by overseas income status



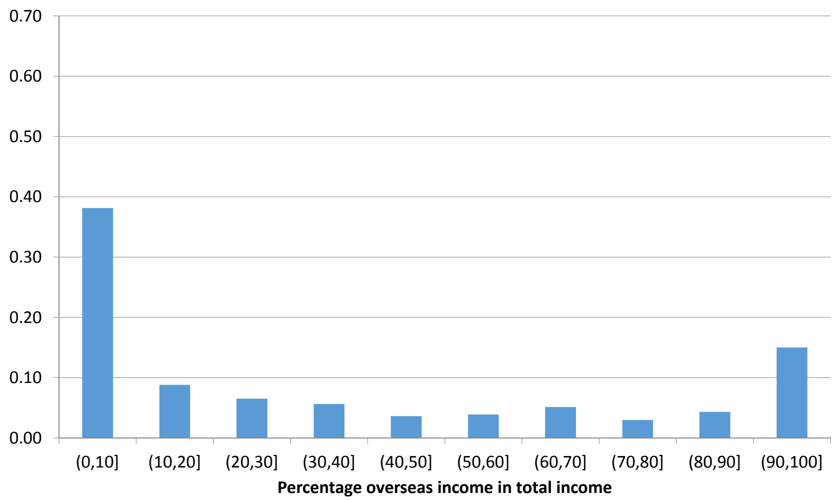
lrme_demeaned: Industry-demeaned log of rolling mean employment

Figure 2: Share of firms with overseas income, by broad industry



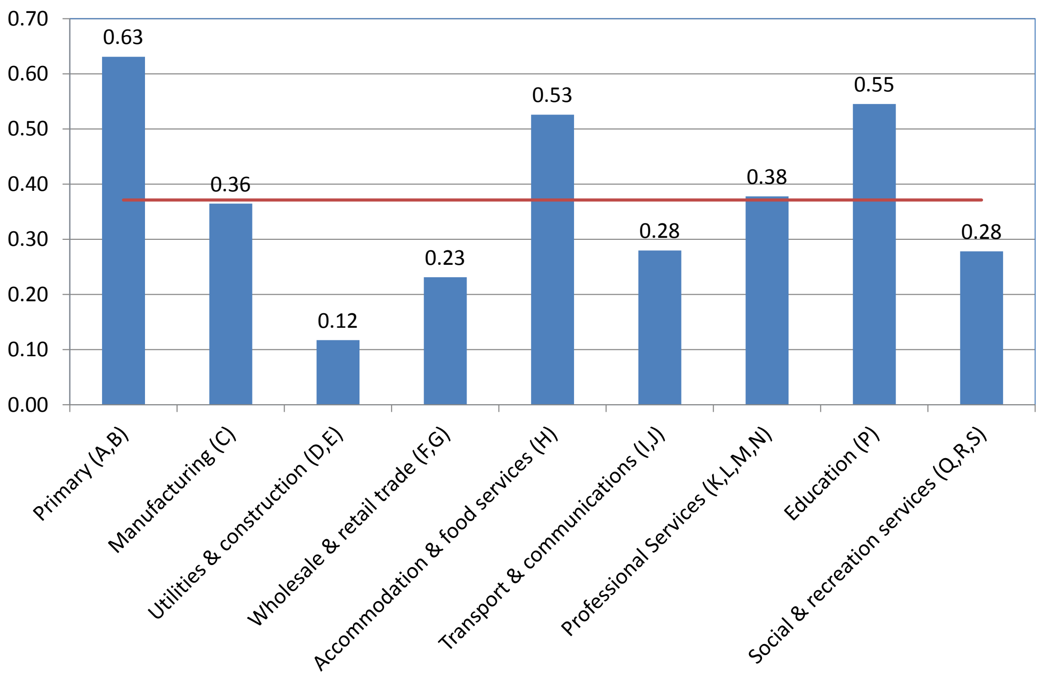
Proportions based on weighted counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Horizontal line represents the overall proportion of firms with overseas income (19%). One-digit ANZSIC96 industry codes in parentheses.

Figure 3: Overseas share of total income, firms with current overseas income



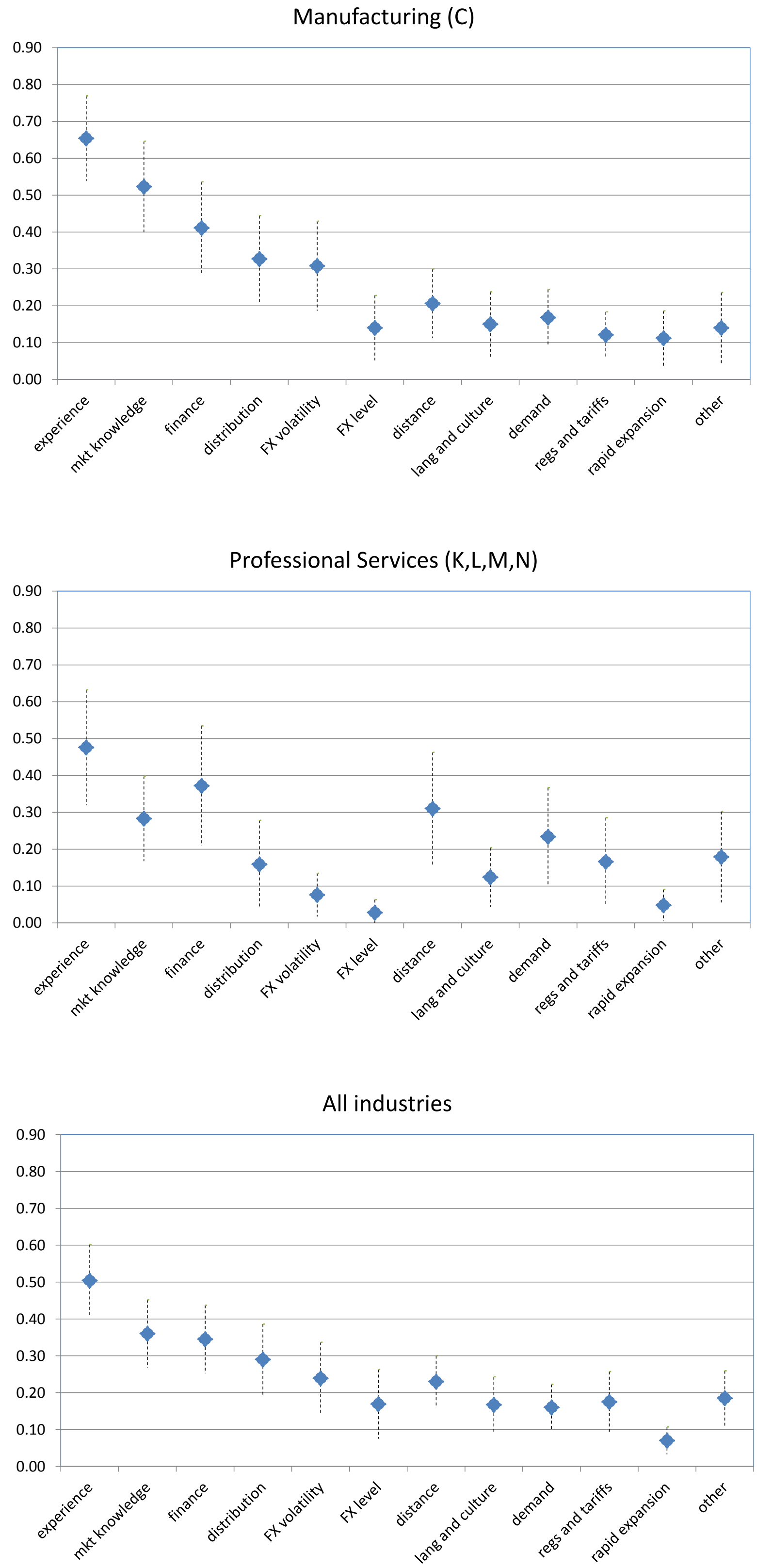
Item non-response: 6%.

Figure 4: Overseas share of total income, industry averages, firms with current overseas income



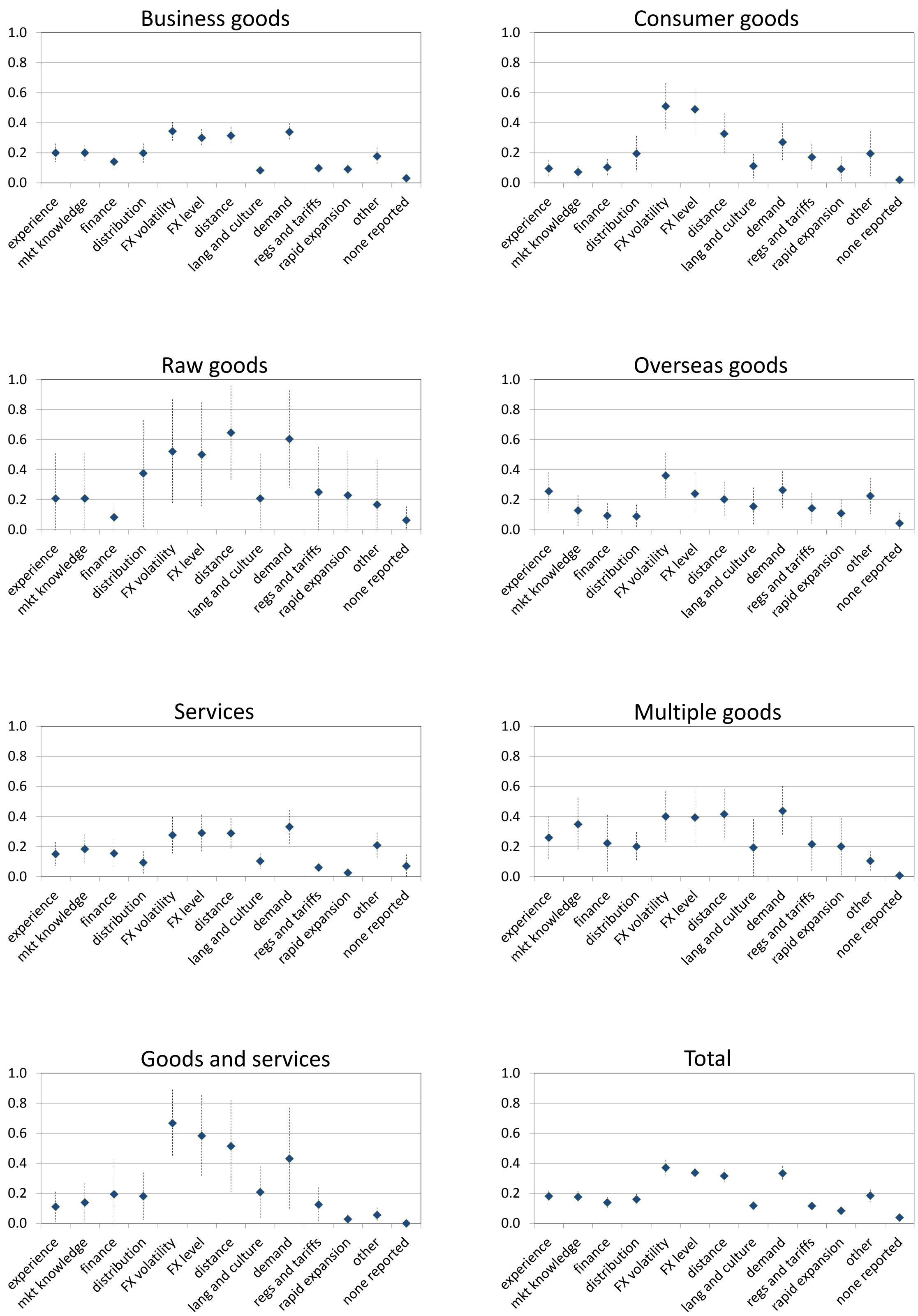
Proportions based on weighted counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Horizontal line represents the average overseas share of income across all industries (37%). Item non-response: 6%.

Figure 5: Proportion of firms reporting barriers, firms with no current or past overseas income



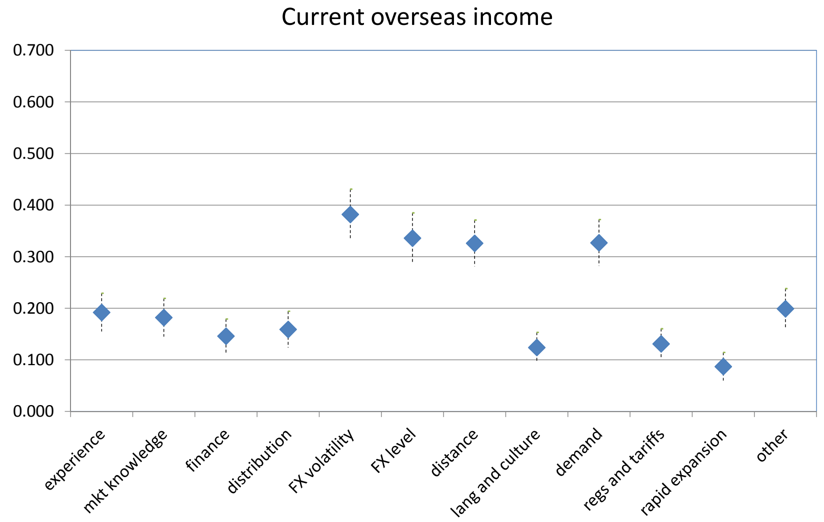
Point estimates of proportion of firms reporting a given barrier. Dotted vertical lines represent 95% confidence intervals. Item non-response: 15%. Differences between Manufacturing and Professional services are significant at 10% level or less for: experience, market knowledge, distribution, FX volatility, FX level. Excludes firms with past overseas income.

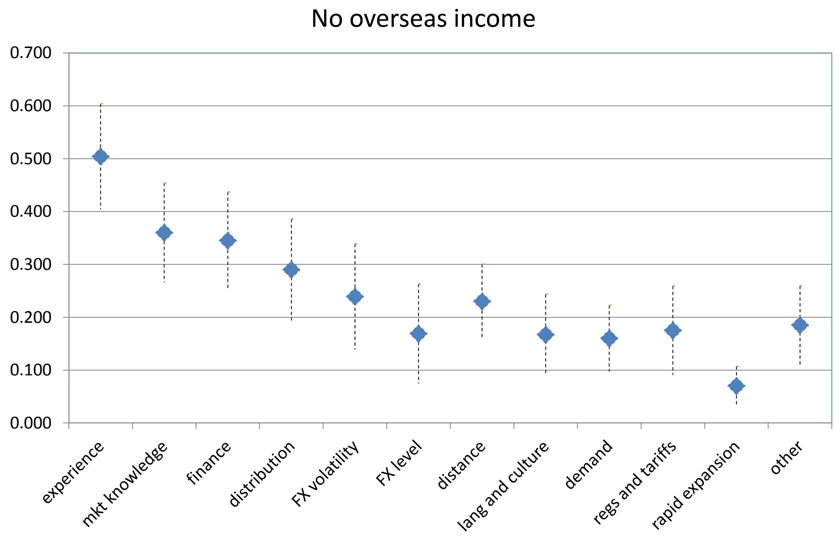
Figure 6: Reported barriers by current source of overseas income



Proportions based on weighted counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements. Dotted vertical lines represent 95 percent confidence intervals. Item non-response: 4%.

Figure 7: Barriers by overseas income status





Proportions for current overseas income earners differ slightly from those reported in figure 6 as: (1) no adjustment is made for item non-response; (2) all sources of income are included, as we do not have information about the type of income non-exporters are interested in pursuing. Population for "no overseas income" refers to firms with no current or past overseas income.

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Appendix A: Item non-response

Item non-response rates

		raw count	wgt count	raw missing rate	weighted missing rate
Current overseas income					
Q6	total overseas income	1,536	6,714	0.04	0.06
Q7	percentage by source	1,536	6,714	0.03	0.02
Q8	payment	1,536	6,714	0.05	0.04
Q9	first year of overseas income	1,536	6,714	0.12	0.10
Q10	number of countries	1,536	6,714	0.04	0.04
Q11	country sources of income	1,536	6,714	0.02	0.03
Q12	income share by region	1,536	6,714	0.06	0.06
Q13	distribution arrangements	1,536	6,714	0.02	0.02
Q14	marketing collaboration	1,536	6,714	0.02	0.02
Q15	relative profitability	1,536	6,714	0.02	0.03
Q16	exit from markets	1,536	6,714	0.01	0.03
Q17	reason for exit	195	717	0.00	0.00
Q18	intentions to expand	1,536	6,714	0.02	0.02
Q19	country for expansion	1,110	4,743	0.08	0.09
Q20	strategies	1,536	6,711	0.01	0.02
Q21	barriers	1,536	6,711	0.07	0.08
Q21adj	adjusted barriers	1,536	6,711	0.04	0.05
Past overseas income					
Q24	first year of overseas income	231	1,581	0.36	0.37
Q25	last year of overseas income	231	1,581	0.33	0.31
Q26	source of income	231	1,581	0.27	0.28
Q27	reason for exit	231	1,581	0.29	0.29
Q28	future interest yes/no	231	1,581	0.09	0.07
No current overseas income (includes *no overseas income* and *past overseas income*)					
Q30	level of interest	3,645	28,788	0.05	0.06
No current or past overseas income, not interested in future overseas income					
Q31	reason for lack of interest	2,934	23,787	0.01	0.01
No current overseas income but interested (includes *no overseas income* and *past overseas income*)					
Q33	motivation for interest	486	2,931	0.11	0.08
Q34	country targeted	486	2,931	0.22	0.23
Q35	barriers to overseas income	486	2,931	0.14	0.14

Item non-response rates – past vs no overseas income

		raw count	wgt count	raw missing rate	weighted missing rate
Past overseas income only					
Q30	level of interest	228	1,581	0.20	0.20
Q31	reason for lack of interest	36	249	0.00	0.02
Q33	motivation for interest	99	555	0.06	0.03
Q34	country targeted	99	555	0.12	0.13
Q35	barriers to overseas income	99	555	0.06	0.08
No overseas income only					
Q30	level of interest	3,417	27,204	0.04	0.05
Q31	reason for lack of interest	2,898	23,541	0.01	0.01
Q33	motivation for interest	390	2,376	0.12	0.09
Q34	country targeted	390	2,376	0.25	0.26
Q35	barriers to overseas income	390	2,376	0.15	0.15

Firm counts random rounded base three in accordance with Statistics New Zealand confidentiality requirements.

Appendix B: Survey questions used in analysis

Module C questions

1

- Section C should be completed by the General Manager.
- Some answers may need to be confirmed by a person with sales and marketing knowledge.

2 For this section, please consider this business's entire operations, both in NZ and overseas.

- Parts i, ii and iii cover the generation of overseas income.
- Parts iv and v cover overseas production and purchase of goods or services, eg production of goods or services in an overseas location or importing of goods or services from overseas.

3 Overseas income includes income generated from:

- overseas sales of goods or services
- ownership of overseas assets (eg foreign direct investment)
- fees and royalties from licensing and franchising
- significant income from overseas residents visiting or studying in NZ (eg tourism and education)

New Zealand income includes income generated from domestic sales to other New Zealand parties, including those who then export.

Business profile

4 Look for the → go to instruction after you answer this question.
Mark one oval. This business:

- 1 has generated overseas income in the last financial year → go to **5**
- 2 has not generated overseas income in the last financial year, but has in previous years → go to **23**
- 3 has never generated overseas income → go to **29**

C0400

7 Of the total amount of overseas income reported in question **6**, what was the percentage received through:

sales of goods manufactured, processed or finished in New Zealand, primarily for **use by other businesses**	%	C0701
sales of goods manufactured, processed or finished in New Zealand, primarily for **personal or household use**	%	C0702
sales of raw, unprocessed materials from New Zealand	%	C0703
sales of goods manufactured, processed or finished overseas	%	C0704
provision of services	%	C0705
licensing or franchising arrangements and royalties, including for use of technology	%	C0706
earnings from assets	%	C0707
other	%	C0708
TOTAL	1 0 0 %	

9 In which year did this business first generate income from overseas sources? year C0901

12 For the last financial year, estimate the percentages of this business's total income represented by the following regions:

If any answers are 'zero' please write *0*

New Zealand	%	C1201
Australia / Pacific	%	C1202
Asia	%	C1203
Americas	%	C1204
United Kingdom / Europe	%	C1205
Middle East / Africa	%	C1206
TOTAL	1 0 0 %	

Withdrawal from overseas countries

16 In the last 3 financial years, has this business stopped generating income from any overseas country?

Note: Also answer 'yes' if this business stopped but subsequently restarted generating overseas income.

- 1 yes → go to **17**
- 2 no → go to **18**

C1600

17 Mark all that apply. Why did this business stop generating income from those countries?

- exchange rate volatility C1701
- exchange rate level C1702
- increased competition or falling market demand C1703
- increased overseas government regulations or tariffs (eg import duties, product standards) C1704
- change in ownership or strategic direction C1705
- specific orders or jobs completed C1706
- profitability lower than expected C1707
- none of the above C1708

Future expansion

18 Mark one oval. Is this business intending to expand its overseas income?

- 1 initiatives underway and increased income anticipated within the next 12 months → go to **19**
- 2 actively exploring the options for expansion → go to **19**
- 3 no action currently, but interested in exploring options → go to **19**
- 4 not currently interested in further expansion → go to **20**

C1800

Barriers to generating overseas income

21 Mark all that apply. In the last 3 financial years, which of the following made it difficult for this business to generate overseas income?

- limited experience in expanding beyond New Zealand C2101
- limited knowledge about specific markets C2102
- limited access to finance for expansion beyond New Zealand C2103
- limited access to distribution networks C2104
- exchange rate volatility C2105
- exchange rate level C2106
- distance from markets C2107
- language and cultural differences C2108
- low market demand or increased competition in overseas markets C2109
- overseas government regulations or tariffs (eg product standards, import duties) C2110
- inability to rapidly increase supply C2111
- other C2112

Part ii: Previous overseas income

23 This section should only be answered by businesses that have generated income from overseas in the past, but not during the last financial year.

24 In which year did this business **first** generate income from overseas sources? ____ year C2401

25 In which year did this business **last** generate income from overseas sources? ____ year C2501

26 Mark all that apply. In previous years, this business generated overseas income through:

- sales of goods manufactured, processed or finished in New Zealand, primarily for **use by other businesses** C2601
- sales of goods manufactured, processed or finished in New Zealand, primarily for **personal or household use** C2602
- sales of raw, unprocessed materials from New Zealand C2603
- sales of goods manufactured overseas C2604
- provision of services C2605
- licensing or franchising arrangements and royalties, including for use of technology C2606
- earnings from assets C2607
- other C2608

27 Mark all that apply. Why did this business stop generating income from those countries?

- exchange rate volatility C2701
- exchange rate level C2702
- increased competition or falling market demand C2703
- increased overseas government regulations or tariffs (eg import duties, product standards) C2704
- change in ownership or strategic direction C2705
- specific orders or jobs completed C2706
- profitability lower than expected C2707
- none of the above C2708

28 Is this business interested in generating income from overseas sources in the future?

- 1 yes → go to **29**
- 2 no → go to **36**
- 3 don't know → go to **36**

C2801

Part iii: Future generation of overseas income

29 This section should only be answered by businesses which have not generated overseas income in the last financial year.

30 Mark one oval. Which of the following best describes this business's plans for generating overseas income in the future?

- 1 initiatives underway and increased income anticipated within the next 12 months → go to **33**
- 2 actively exploring the options → go to **33**
- 3 no action currently, but interested in exploring options → go to **33**
- 4 not currently interested or business not suitable for overseas income → go to **31** C3000

31 Mark all that apply. Why is this business not interested in or not suitable for generating overseas income?

- costs, risks or barriers are prohibitive C3101
- the nature of this business relies on physical proximity to its customers C3102
- goods or services satisfy demand specific only to New Zealand (eg services related to New Zealand specific regulations or legislation) C3103
- role in business structure is limited to the New Zealand market (eg New Zealand branch of international business or licensee) C3104
- New Zealand market is sufficient C3105

32 Once you have answered question **31**, go to question **36** on page 26.

33 Mark all that apply. Which of the following factors motivate this business to consider generating future income from overseas sources?

- no domestic market for goods or services C3301
- reached maximum potential of domestic market C3302
- strategic decision to grow existing business into new markets C3303
- to obtain cost savings from increasing volume of sales C3304
- able to obtain higher prices overseas C3305
- new technologies have opened up new market opportunities C3306
- new business contacts or alliances have opened up new market opportunities C3307
- existing New Zealand customers moved offshore C3308
- none of the above C3309

Barriers to generating overseas income

35 Mark all that apply. Which of the following make it difficult for this business to generate income from overseas sources?

- limited experience in expanding beyond New Zealand C3501
- limited knowledge about specific markets C3502
- limited access to finance for expansion beyond New Zealand C3503
- limited access to distribution networks C3504
- exchange rate volatility C3505
- exchange rate level C3506
- distance from markets C3507
- language and cultural differences C3508
- low market demand or increased competition in overseas markets C3509
- overseas government regulations or tariffs (eg import duties, product standards) C3510
- inability to rapidly increase supply C3511
- other C3512

Module A questions

7 For the last financial year, estimate the proportion of this business's sales of goods and services that came from exports: ___ % A0701

8 For the last financial year, estimate the proportion of this business's sales that came from tourism:

Include:
- sales of goods and services **indirectly** related to tourism but purchased by tourists (eg retail sales of food, alcohol, and clothing)
- sales of goods and services **directly** related to tourism (eg accommodation, transport, and recreation services)

- 1 zero
- 2 25% or less
- 3 50% or less
- 4 75% or less
- 5 76% - 100%
- 6 don't know

A0800

25 Over the last financial year, did this business enter any new export markets?

- 1 yes
- 2 no
- 3 don't know

A2500

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