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This year’s GEM report tells us that Scotland has the same Total Entrepreneurial Activity (TEA) rate as the average for all 14 European participants and that, to my mind, is frankly not good enough.

Scotland as a nation should aspire to be in the top league of TEA and to do so our economic development agency must increase aspiration and embed expertise within the existing, and nascent, entrepreneurial community.

Jack Perry, the chief executive of Scottish Enterprise, has taken some bold decisions in economic development terms, but I believe he should do more. Foremost in my mind is setting Scotland the goal of reaching the Premier League of TEA and working towards that goal.

In doing so we should tolerate their risk taking and failing in certain areas – you don’t after all make an omelette without breaking a few eggs...What we should never tolerate is mediocrity in our ambition.

His organisation has formally “assisted” 10,000 start-up businesses, but surely the balance of 20,000 unassisted could do with some help? Also is working with 55 high growth start ups by the end of 2007 really a stretching target for his organisation or for Scotland?

This isn’t just Jack’s problem it’s all of ours – if we don’t invigorate entrepreneurial spirit in the face of rising international competition and ambition we are all going to struggle. From a policy perspective it is clear more must be done with the post-30 years old nascent entrepreneurial community and start-up funding is an issue to tackle here.

The excellent news is that, I believe, through Determined to Succeed we will see a wellspring of nascent entrepreneurs coming forward from our schools. Linked to this it is my personal view that both FE Colleges and Universities must embed an enterprising and entrepreneurial rigor within their educational programmes to encourage greater uptake, not just in business start-up but in delivering enterprising graduates into the workplace.

The good news is that in-migration and immigration offer significant benefit in new business creation and we should applaud as much action in bringing such people to Scotland as possible and build upon the “Fresh Talent” initiative.

Finally let me say I subscribe to the belief that Scotland can do this – we can gain entry into the Premier League of TEA. The gift of that achievement rests with all of us, so let’s make it happen.

Tom Hunter
The Global Entrepreneurship Monitor (GEM) is a unique international research programme that seeks to measure and explain differences in entrepreneurial activity across a wide variety of both developing and developed countries.

GEM was conceived and developed in 1998 as a joint research initiative by London Business School and Babson College, with the intention of gathering together pre-eminent entrepreneurship academics to study entrepreneurial processes and the relationship between entrepreneurship and economic growth.

GEM2004 is the sixth annual GEM global assessment of entrepreneurship and this Scottish GEM report is the fifth in the series. Having expanded from an initial 10 countries in 1999 to 31 nations in 2003, the programme has again grown to 34 countries in 2004.

The three key objectives of the GEM project are to:

- Measure differences in the level of entrepreneurial activity between countries.
- Uncover factors leading to appropriate levels of entrepreneurship.
- Suggest policies that may enhance the national level of entrepreneurial activity.

GEM investigates the Total Entrepreneurial Activity, or TEA, in each country. TEA is the proportion of individuals in the working age population who are actively trying to start their own business, including self-employment, or running their own business that is less than 3 years old.

The GEM2004 Global Report, available at www.gemconsortium.org, builds on 6 years of harmonised cross-national measures of entrepreneurial activity in order to provide academics, students and policymakers with rigorous benchmarks to be used as a basis for reliable international comparison. By understanding the nature, extent and economic impact of entrepreneurship in a diverse group of countries, the opportunities for learning are multiplied.

Key Findings of Global GEM2004 Report

Total Entrepreneurial Activity

- The average level of entrepreneurial activity was 9.3% of the working age population in the 34 GEM 2004 countries. From a total

What's new in GEM Scotland 2004?

1. GEM2004 provides a new way of comparing countries. It demonstrates a relationship between the quantity and type of new business activity and per capita GDP.

2. For the first time, estimates of expected return on investment in new businesses are provided both from entrepreneurs and from informal investors.

3. A key theme throughout GEM Scotland 2004 is looking back over the previous 5 years of data. In order to facilitate comparison, data for each year was weighted for gender and age according to the 2001 Scottish Census. Thus some figures in this report may differ slightly from those reported in earlier years. For comparisons of Scottish and UK data for 2004 only, we have used 2003 population estimates provided by the Government Actuary’s Department. These differ slightly from estimates used by GEM Global to calculate TEA.

4. The Scottish Executive released the 2003-2004 Urban Rural Classification. Originally released in 2000 as the ‘Scottish Household Survey Urban Rural Classification’, this newest version created an accessible and rigorous approach to defining rurality and remoteness. The 6-fold classification has been used in Chapter 5 to explore urban/rural as well as accessible/remote differences in entrepreneurship.

5. In this year’s report we combine length of residence in the region with place of birth to distinguish between life-long residents, internal migrants within Scotland, in-migrants from elsewhere in the UK, and immigrants from outwith the UK.
labour force of 566 million, 73 million adults were found to be either starting a business or were managing a young business of which they were also the owner. Of the seventeen GEM countries spanning 2000-2004, the TEA index remained stable moving from 8.7 in 2003 to 8.4 in 2004. There is growing evidence of a year on year stability in both the TEA index and the relative year to year rank order of the TEA index of countries.

Entrepreneurial activity and income per person

- The relationship between entrepreneurial activity and per capita GDP is U-shaped. The TEA index declines as countries attain higher national income and reaches its lowest point at about $30,000 of GDP per capita. Beyond that level of GDP, TEA begins rising slowly and steadily as per capita GDP continues to rise. There is a case for policies to be tailored to each country to reflect the average income level found. The focus should move away from short term to long term policy solutions. Entrepreneurial activity is embedded in multi-dimensional institutions and norms, which exist in each country. Social, cultural, political and economic structures can only be challenged over time.

Opportunity versus necessity entrepreneurship

- The relative level of opportunity and necessity entrepreneurship across the 34 GEM2004 countries is relatively stable from year to year, with 65% opportunity and 35% necessity entrepreneurship found. However, there remains great variability in the relative distribution of opportunity and necessity entrepreneurship between the countries. Opportunity entrepreneurship tends to be more important to high-income counties. Necessity entrepreneurship is a wide spread individual level strategy for alleviating poverty in low income countries. Countries that have either very low or very high levels of entrepreneurial activity relative to their per capita GDP seem to experience lower rates of economic growth. There also appears to be a link between exports and necessity/opportunity entrepreneurship. As the proportion of opportunity entrepreneurship increases, so does the proportion of start-ups that expect to export.

Characteristics of Active Entrepreneurs

- Entrepreneurship rates vary by age and gender. Men and younger people tend to
be more entrepreneurial regardless of GDP per capita. When the TEA 2004 rate is broken down by gender and country income group to highlight entrepreneurial activity, some stark contrasts emerge. Over 12% of women in low income countries, compared with fewer than 4% in middle income countries and over 6% in high income countries are involved in entrepreneurial activity. One possible interpretation is that women in low-income countries are active entrepreneurs out of necessity. They are pushed into finding income. In richer countries, women and men choose, or are pulled into entrepreneurship.

- Consumer services sector start-ups dominate across all levels of per capita GDP, with business services growing in importance. The global report provides policy considerations for 3 groups of countries: low-income, middle-income and high-income.

- For 2004, the key message for policy makers worldwide is that the U-shaped relationship between entrepreneurial activity and GDP per capita endorses a ‘no one size fits all’ approach to policy making. In other words, effective policy strategies with respect to entrepreneurship need to be tailored to the national context and where possible to a sub national level. In Scotland, we know that the Entrepreneurial Framework Conditions (see Appendix 1) are not out of line with its benchmark nations or the GEM average.

It is for this reason that we agree with the ‘no one size fits all’ approach and believe more detailed national level research is needed to guide entrepreneurship policy in Scotland.
Scotland’s Total Entrepreneurial Activity (TEA) rate in 2004 was 5.1% which is lower than the country average for all sovereign nations in the GEM sample (9.3%) and lower than the group of 17 countries that have participated each year for the past 5 years (8.4%), but the same rate as the average for all 14 participating European countries. Scotland remains at the base of a group of nations forming the middle of 3 TEA rate bands (from 5 to 10). Scotland’s TEA rate in 2004 was 88% of the UK figure.

Men are twice as likely as women to be involved in opportunity entrepreneurship, but men and women have similar levels of necessity entrepreneurship.

Over the past 5 years, there appears to have been an overall improvement in attitudes to entrepreneurship, particularly among females.

There has been a significant shift in the types of businesses being started by women over the period 2000 to 2004, with a growth in new female businesses in the business services sector.

Local authority areas that are mainly remote tend to have relatively high rates of new business activity (9.2%). Females in mainly urban local authorities appear to have relatively low rates of new business activity (2.7%). In-migrants from the rest of the UK deliver twice as many entrepreneurs as would be expected given their proportion of the sample, across urban, accessible and remote local authorities.

The informal investment rate in Scotland has remained at less than half the average for small high income nations from 2000 to 2004. UK levels have steadily declined over the period to match Scottish levels in 2004 at 1.3% compared with 3.0% for small high income nations.

Scottish nascent entrepreneurs expected to recover their investments in their own new business in 2 years, compared to 5 years for informal investors in new business. 63% of informal investors in new business did not expect to get any money back at all.

The major policy initiative of the year in reaction to Scotland’s demographic problem was "New Scots: Attracting fresh talent to meet the challenge of growth", a policy designed to promote Scotland to immigrants as a place to live and work. The Framework for Economic Development of Scotland was also relaunched with ‘entrepreneurial dynamism’ as a key objective. In light of the relative contribution of in-migrants from the rest of the UK to overall new business activity, it makes sense for the Scottish Executive to actively market Fresh Talent initiative to the rest of the UK.

The £18 million Futurebuilders Scotland programme, set up by Communities Scotland includes a Social Entrepreneurs Fund which encourages new social enterprises to deliver services to local communities. While over 5% of the 2004 GEM Scotland sample said they were trying to start a social enterprise, only one third of these people had actually done something to get it going in the previous 12 month period. The Social Entrepreneurs Fund is a welcome development and should help the conversion of thinkers of social enterprise into active nascent social entrepreneurs.

The Business Start-Up Scheme was launched to provide £1000 grants to 18 to 30 year olds. While half of young adults in the GEM Scotland sample see lack of finance as a barrier to starting in business, so do half of older adults. Further consideration could therefore be given to quasi-government funding of start-ups for the over 30s, given the reluctance of most Scottish nascent entrepreneurs to seek external private sector funding.
New Business Activity in Scotland: 2004 update


Total Entrepreneurial Activity

34 countries representing 784 million people aged between 18 and 64 years old participated in GEM2004.

As in 2003, Scottish entrepreneurial activity in 2004 remained relatively stable at 88% of the UK figure (86% in 2003). The UK and Scottish TEA rates declined slightly but not significantly from 5.5% to 5.1% between 2003 and 2004. TEA rates have also declined across Europe and the 5 small high income nations, to 5.1% and 7.8% respectively.

Table B benchmarks the TEA rate for Scotland for both 2003 and 2004 against the UK, the Global TEA rates, the 17 GEM countries included from 2000 - 2004 and a sub group of 14 European nations for which data is available for 2003 and 2004. It also takes a group of small high income nations as a more specific comparison to Scotland (Denmark, Finland, Ireland, New Zealand, Israel and Norway). The Scottish TEA rate declined slightly but not significantly from 5.5% to 5.1% between 2003 and 2004. TEA rates have also declined across Europe and the 5 small high income nations, to 5.1% and 7.8% respectively.

Table B: Scottish and benchmark TEA rates, 2003 - 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>2003 TEA</th>
<th>2004 TEA</th>
<th>% change</th>
<th>Scottish TEA as % of other TEA rates</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2003</td>
</tr>
<tr>
<td>Scotland</td>
<td>5.5</td>
<td>5.1</td>
<td>-9%</td>
<td>n/a</td>
</tr>
<tr>
<td>UK</td>
<td>6.4</td>
<td>5.8</td>
<td>-9%</td>
<td>86</td>
</tr>
<tr>
<td>Global TEA rate</td>
<td>7.5</td>
<td>9.3</td>
<td>23%</td>
<td>73</td>
</tr>
<tr>
<td>17 GEM countries 2000-2004</td>
<td>8.7</td>
<td>8.4</td>
<td>-4%</td>
<td>n/a</td>
</tr>
<tr>
<td>14 European Countries</td>
<td>5.6</td>
<td>5.1</td>
<td>-9%</td>
<td>100</td>
</tr>
<tr>
<td>5 small high income nations average</td>
<td>8.4</td>
<td>7.8</td>
<td>-9%</td>
<td>65</td>
</tr>
</tbody>
</table>
rates were not significantly different in 2003 or 2004. The Scottish TEA rate ranked second last in comparison to 5 small high income nations, in front of Finland (4.4%) and slightly behind Denmark (5.3%) and Israel (6.6%). New Zealand’s TEA rate (14.7%) was double Ireland’s (7.7%) in 2004 and significantly higher than that of all other small high income nations.

The global TEA rate for GEM2004 was 9.3%, an increase of 23% on 2003. This is almost wholly due to a change in the countries participating in GEM in 2004 (neither India nor China were included in GEM Global 2004). Among the 17 countries which have participated in GEM for the past 5 years, the TEA rate has declined slightly from 8.7% in 2003 to 8.4% in 2004. In summary, Scotland’s TEA rate as a % of the global TEA rate has dropped from 73% in 2003 to 55% in 2004, but has remained unchanged as a percentage of its other benchmark country groups.

Table C shows an estimate of the number of nascent businesses and one year old businesses in each of the 5 years from 2000 to 2004, classified by single-owner business and multi-owner business. The data shows a drop in 2002, followed by a recovery to former levels. The nascent enterprise estimates were created by categorizing the number of people who said they were actively trying to start a new business that they would own in whole or in part, and by the number of owners they said the business would have. The number of nascent enterprises was then calculated, correcting for the effect of multiple owners.

Not all nascent enterprises actually get started. An indication of how many new businesses started in one year and survived into the next year is provided by the number of business owner-managers sampled who reported their business began to pay wages the previous year. In the 2004 sample, 14 individuals come under this category, all except one of whom were sole owners. By grossing up to the Scottish working age population, we estimate that around 32,000 sole owner businesses and 1,000 multi-owner businesses started in 2003 and survived to mid 2004. This represents around double the new company registration rate and nearly three times the annual VAT registration rate. Interestingly, it is also 3 times the estimate of

| Estimated number of new businesses surviving to the following year |
|-------------------|---------|--------|-------|
| year started      | single owner | multi-owner | total |
| 2000              | 12,000    | 5,000   | 18,000|
| 2001              | 12,000    | 4,000   | 16,000|
| 2002              | 21,000    | 6,000   | 27,000|
| 2003              | 32,000    | 1,000   | 33,000|

| Estimated number of nascent businesses |
|-----------------------|---------|--------|-------|
| year      | single owner | multi-owner | total |
| 2000      | 75,000     | 12,000    | 86,000|
| 2001      | 73,000     | 15,000    | 88,000|
| 2002      | 51,000     | 13,000    | 64,000|
| 2003      | 76,000     | 16,000    | 91,000|
| 2004      | 78,000     | 13,000    | 91,000|

Note: all numbers are rounded to nearest thousand
new businesses per year given by Harrison and Doni3. Although these estimates are based on relatively few respondents, they mirror the trend in nascent enterprises over the 5 years, showing a dip following the recession in 2002 after the technology stocks crash and 9/11.

**Distribution of entrepreneurial activity by age and gender**

Figure C shows the trend in Scottish TEA rates between male and females for 2000 to 2004. The male TEA rate in 2004 is 6.6% and is significantly higher than the female TEA rate (3.8%). The male TEA rate dropped from a high of 8% in 2003, while the female TEA climbed from 3%. This difference in TEA rates between men and women in 2004 is due to lower TEA rates among younger women (3.0%) than younger males (8.3%). There is no significant difference in TEA rates between older males (5.7%) and older females (4.3%). Female TEA rates differ little from year to year. It is the volatility of the younger male adults that produces the difference in annual TEA rates.

The Scottish data demonstrates a further significant gender difference when considering opportunity entrepreneurship. GEM distinguishes between opportunity entrepreneurship (individuals starting businesses to exploit unique market opportunities) and necessity entrepreneurship (individuals starting businesses because they have no other alternative). In Scotland in 2004, males had a significantly higher rate of opportunity entrepreneurship than females, which is consistent with 2003.

The female opportunity entrepreneurship rate was 3.1%, half that of males (6.0%). This year there was no significant difference between male and female rates of necessity entrepreneurship. However, it is interesting to note that the Scottish female rate has risen to 0.7% from 0.3% in 2003 and the male rate has dropped from 1.9% in 2003 to 0.5% in 2004. There was no significant difference in the necessity entrepreneurship rate between younger and older adults.

**Attitudes towards entrepreneurship**

Consistently over the past 5 years, 3 attitude questions have been asked. From 2000 to 2004, respondents were asked about their self-perception of opportunities for starting businesses over the next 6 months, recent personal contact with a start-up entrepreneur, and the extent to which fear of failure would prevent them from starting a business. In 2001, a question relating to self-capacity (skills, knowledge and experience) to start a business was added. The opportunity to compare 5 years has produced very interesting results by gender in particular, which are explored in Chapter 4.
Overall, Figures D, E, F and G show that perception of entrepreneurial opportunity and entrepreneurial capacity have significantly improved over the 5 years, although people are no more likely to know an entrepreneur in 2004 (30%) than 2000 (32%), and there is no overall reduction in the fear of failure as a barrier to start-up. Of those who expressed an opinion on the statement that “in the next 6 months there will be good opportunities for starting a business in the area where you live”, the figures dipped significantly over 2001 and 2002 and then recovered to 37% in both 2003 and 2004 (see Figure E). Finally, the proportion of respondents between 2001 and 2004 who agreed that they had the “knowledge, skill and experience required to start a new business” has grown significantly over the period from 42% to 49% (see Figure G).

**In-migration and entrepreneurship**

Last year’s GEM UK survey asked respondents how long they had been living in the region. This variable was used together with age to compute the percentage of each respondent’s life that they spent in a region and therefore test whether the length of residence in a region and new business activity rates were linked. It was found that recent in-migrants to Scotland were 60% more likely to be starting or running a new business than those who spent more than a third of their life in the region⁴.

In this year’s report, we combine length of residence with country of birth to compare 4 groups: those who have always lived in the region in which they now reside (life-long residents), those who were born in Scotland but have not always lived in the same region (internal migrants), those who were born elsewhere in the UK (in-migrants), and those who were born outside the UK (immigrants). In Scotland, the 2004 TEA rate for life-long residents is 2.6%, with 4.7% for internal migrants, 13.1% for in-migrants and 7.5% for immigrants. There is a significant difference in TEA rates between in-migrants on the one hand, and life-long residents and internal migrants on the other. There is also a significant difference in the contribution to the Scottish TEA rate by respondents from the 4 groups because of differences in total sample size of these groups. Life-long residents contribute 19% of all new business activity, while internal migrants contribute 35.7% and in-migrants contribute 36.9%. Immigrants make the smallest overall contribution, with 8% of all new business activity in Scotland. In other words, those born outside Scotland contribute 45% of the new business activity, and most of those are in-migrants from the rest of the UK, not immigrants. Chapter 6 delves further into this story by considering who is contributing to the TEA rate in urban/rural as well as accessible/remote parts of Scotland.

**Informal Investment**

1.3% of Scottish respondents said they had invested in someone else’s business in the past year, compared with 1.2% of UK respondents. UK informal investment rates have been steadily
dropping over the past 5 years. Following a dip in 2002, Scottish rates have recovered to their 2000 levels, but remain at less than half the average for small high income nations. Informal investment activity is covered in greater depth in Chapter 6.

Conclusion
The Scottish TEA rate tracks the European TEA rate closely, and appears to be very slowly edging closer to the UK TEA rate. There is no evidence that the gender gap in TEA rates is diminishing. Young male TEA rates appear to be more sensitive to economic conditions than older male or female TEA rates. Attitudes to entrepreneurship have significantly improved over the past 5 years. Finally, in-migrants to Scotland provide a surprisingly high proportion of total new business activity (37%), yet comprise only 15% of the sample.

1 “Statistical significance” refers to a calculation of where the range within which the average value of 95 out of 100 replications of the survey would be expected to lie. This range is shown in Figure 1 by vertical bars on either side of each data point. If the ‘confidence intervals’ (denoted by the vertical bars) of two national TEA rates do not overlap, the difference between the TEA rates is not statistically significant at the 0.05 level. Reference in this report to significant differences implies statistically significant difference at the 0.05 level.

2 The reason for comparing Scotland to these independent nations is that they are all around the same population size and are classified as high income OECD countries. There is a modest and highly significant correlation between population size and necessity entrepreneurship (R=0.50, p<0.01, 37 nations, GEM2002 data) but not with opportunity entrepreneurship. High income nations have different entrepreneurial activity to middle or low income nations (see the 2004 GEM Global Report). Thus by comparing Scotland with these nations, we avoid the population and income effect, and we can learn from policy measures implemented on a similar scale to Scotland.


4 For the sake of brevity, “region” was not defined, so respondents may have defined it at the less than regional development area level.
The new data from the GEM Scotland 2004 report, presented in this Chapter, helps improve our understanding of the attitudes and aspirations of women to self employment and new business creation. This complements the recent research published by Scottish Enterprise and Highlands and Islands Enterprise, *Sharpening the Focus on Women’s Enterprise* (March 2004)\(^1\). In total, this contributes to a growing body of evidence which could assist policy development and ensure that better support is developed as well as to stimulate greater interest in entrepreneurship among this important priority group.

As the findings of this Chapter indicate, there is still a wider gap in male and female rates of participation in entrepreneurship in Scotland than in many other countries. But there is much to be positive about. It is encouraging that more women in Scotland are attracted to entrepreneurship to exploit a business opportunity, rather than by economic necessity, such as redundancy or a lack of career progression. Likewise, it is encouraging that the "fear of failure" seems to be diminishing, and that more women believe they have the "knowledge, skills and experience required to start a business". This suggests greater confidence about the economy and the general business environment, and greater belief among women in their ability to develop sustainable and successful businesses.

The data certainly confirms the experiences of the Scottish Enterprise Network in recent years. The number of enquiries we receive from women has increased markedly in recent years, with growing numbers attending start-up events and signing up for our programmes on networking, mentoring and understanding and raising finance. This is reflected in an increasing proportion of women-owned businesses among Scottish Enterprise’s (SE) start-up assists – a figure now running at over 40% of the total.

Our experience also confirms one of the main findings of this Chapter: that the greatest perceived barrier faced by women and men is the difficulty in raising finance. Interestingly, a clear and significant difference exists in the use of bank finance. However, an analysis of refusal rates fails to show any gender difference. Recognising the longstanding issue of raising finance, both Scottish Enterprise and Highland and Island Enterprise have developed programmes to tackle this issue. In the SE area, *Micro credit* and in the Highlands and Islands, *HIE Starts* provide training and advisory support, along with access to funding to help women develop the necessary knowledge and skills to improve their ability to start and develop viable businesses.

Another reason for optimism is the evidence that a much higher proportion of women intend to start in business with other owners. This may indicate that more women than previously are planning to run more aspirational businesses.

The results set out in this Chapter show that progress is being made. But they also highlight that further effort is required to build the momentum and to address the constraints that still exist. As set out in our new report, Scotland’s development agencies, Scottish Enterprise and Highlands and Islands Enterprise have launched an active programme to bring more women into self-employment and business start-up, reflecting our commitment to supporting the aspirations and ambitions of female entrepreneurs in Scotland.

Terry Currie
Director,
Small Business Services

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\(^1\) *Sharpening the Focus on Women’s Enterprise* (March 2004)
Women and Enterprise

Introduction
In this chapter we explore some of the differences between male and female attitudes towards, and experiences of, entrepreneurship. Women in Scotland are much less likely to be involved in both starting and running a business than men. In Scotland over the 2000 to 2004 period, the average TEA rate for women in Scotland was 3.2%, a significantly lower figure than the TEA rate for men (6.4%). However, it is worth noting that the Scottish female TEA rate has been rising relative to the UK female TEA rate and in 2004 for the first time in 5 years, the Scottish female TEA rate has matched the UK female TEA rate.

In every GEM country there are more men than women who are active entrepreneurs, but wide variations exist between countries. Around the world, the average participation rates for men tend to be 50% higher than those of women, but the ratio of female to male entrepreneurs is higher in the case of necessity based entrepreneurship, which constitutes a high proportion of activity in low income countries, such as Ecuador, Hungary, Peru and South Africa.

The data from GEM Scotland demonstrates a much wider difference between male and female rates of participation in entrepreneurship. In 2004, men were almost twice (6.6%) as likely as women (3.8%) to be involved in entrepreneurship. The Scottish data also demonstrates that most women in Scotland are drawn to entrepreneurship to exploit an opportunity, rather than being pushed into entrepreneurship by economic necessity. In 2004, 81% of female entrepreneurs and 91% of male entrepreneurs stated that their motivation for entrepreneurship was opportunity based. However, twice as many female entrepreneurs (19%) than male entrepreneurs (9%) were pushed into entrepreneurship out of economic necessity. Because twice as many men as women actually become entrepreneurs, the necessity entrepreneurship rate among Scottish men (0.5%) and women (0.7%) is very similar.

The GEM Scotland 2003 report noted that while men were twice as likely as women to state that they were trying to start a business, an equal proportion of men and women said they were trying to start a social enterprise. This year’s data confirms this finding. The total proportion of respondents saying they were trying to start a social enterprise is 5.1%, equally divided between women and men. However, more men (39%) than women (31%) had actually spent time over the previous twelve months setting up their new social initiative.

Male and Female TEA rates 2000 to 2004
This report is the fifth year that data has been collected for GEM Scotland and allows a comparison of male and female differences in TEA rates over time (Figure H).

The pattern of male TEA rates in Figure H suggests that younger males are more volatile in their new business behaviour than older males or females. There is also a marked reduction
in TEA rates among younger males after 9/11, followed by a sharp rebound in 2003 and 2004. The highest TEA rates for men occur in the 25-34 and 35-44 age groups, during the early to mid career period. This finding has been more or less consistent over the five year period. Male TEA rates within the mid to late career, 45-54 age group have also been fairly consistent over the past 4 years, fluctuating between 4.7% in 2000 and 6.2% in 2002 and 2004. This year’s data shows a marked drop in the TEA rate of males in the oldest (55-64) age group. In 2000, males in this age group had a TEA rate of 2.3%, rising to 5.8% in 2002. The 2004 data, however, shows the TEA rate for this group (1.5%) to be significantly lower than at any other time during the five year period and significantly lower than any other age group in 2004.

Unlike men of the same age, women in the 25-34 age group demonstrate relatively low TEA rates. In 2004, the TEA rate for women in the 25-34 age group was 3.2%, the same TEA rate as occurred in 2002 and a reduction from the TEA of 5.0% noted in 2000. The highest TEA rate for women (6.3%) in 2004 occurs in the 35-44 age group: women in this age group are twice as likely to start in business as women in the 25-34 age group. This finding is noticeably different from the TEA rates of men in the same age groups and is a distinctive gender related difference in approach to entrepreneurship.

In comparison with men, women tend to opt for entrepreneurship later in their careers and the GEM Scotland data demonstrates that the highest TEA rates for women are within the mid to late career 35-44 and 45-54 age groups. Within the youngest age group (18-24), the female TEA rates have shown a consistent increase throughout the five year period from 0.9% in 2000, doubling to 1.8% in 2002 and rising again to 2.7% in 2004. This age group accounts for only a small proportion of female entrepreneurial activity; however, it is gratifying to note this consistent increase which may reflect increasing enthusiasm for entrepreneurship among young women at the start of their careers.

Unlike men of the same age, women in the 25-34 age group demonstrate relatively low TEA rates. In 2004, the TEA rate for women in the 25-34 age group was 3.2%, the same TEA rate as occurred in 2002 and a reduction from the TEA of 5.0% noted in 2000. The highest TEA rate for women (6.3%) in 2004 occurs in the 35-44 age group: women in this age group are twice as likely to start in business as women in the 25-34 age group. This finding is noticeably different from the TEA rates of men in the same age groups and is a distinctive gender related difference in approach to entrepreneurship.

Women in the 45-54 age group also demonstrate relatively high TEA rates. In 2004, the TEA rate for women in the 45-54 age group was 5.6%, quite close to the 6.2% TEA rate for men in the same age group. Although the TEA rate for women in the 45-54 age group has fluctuated over time, the 2004 TEA rate is much higher than the TEA rate of 1.7% noted in 2000. Very few women in the oldest age group (55-64) engage in business ownership. Over the five year period, the TEA rates of women aged 55-64 have fluctuated from 0.7% in 2000, reached a high of 2.7% in 2002, and has since dropped to less than 1%. In summary, women engage in entrepreneurship later in life than men.
Attitudes to Entrepreneurship

An analysis of GEM data over the past five years reveals some profound changes in the attitude of women in Scotland towards entrepreneurship. The proportion of women who agreed that they had the "knowledge, skill and experience required to start a new business" has increased from 32% in 2001 and 31% in 2002 to 43% in 2004. However, in each of the past 4 years, significantly fewer females agreed with this statement than males, as Figure I shows. Also, while significantly more females than males answered yes to the question "would fear of failure prevent you from starting a business?" in 2000 and 2001, over the past 3 years female response to this question appears to have declined to the long run male rate of around 35% (Figure J).

Of those who expressed an opinion on the statement that "in the next 6 months there will be good opportunities for starting a business in the area where you live", the proportion of women who agreed dipped significantly between 2000 and 2002 and then recovered to their former levels of around 30% (Figure K). However, even more women answered “don’t know” to this question than agreed with it in 2000 and 2001. The proportion of men and women answering "don’t know" has dropped steadily from 21% for males and 26% for females in 2000 to only one respondent in 2004. This may be an artifact of the collection process or it may be a true reflection of greater opportunity awareness on the part of the general population. If it is the latter, this means that the proportion of women who perceive opportunities has increased by 55% between 2000 and 2004, compared with an increase of 76% for males. Finally, the proportion of both females and males in 2004 who said they know someone personally who started a business in the last two years is very similar to 2000 levels, after dipping in 2001 and 2002 (Figure L).
Business Activities

There has been a significant shift in the types of businesses being started by women over the period 2001 to 2004.

Figure M shows that, in 2001, 68% of female nascent and new business entrepreneurs were in the consumer services sector, compared with only 23% of male entrepreneurs. Only 29% of female entrepreneurs were in the business services sector, compared with 40% of male entrepreneurs, and only 11% of females entrepreneurs were in transforming (such as manufacturing) businesses, compared with 33% of male entrepreneurs.

This pattern has gradually changed so that by 2004 there was no significant difference between the proportion of nascent and new business entrepreneurs of either gender entering business services (33% females, 31% males) or extractive businesses (7% females, 6% males). However, the proportion of females starting or running new transforming businesses and consumer services businesses was much lower than the proportion of men running these business (7% versus 35%, and 53% versus 29% respectively), as in 2001. The main feature here is the steady rise in the number of female entrepreneurs entering the business services sector, reflecting the growth in the proportion of women entering the professional services sectors such as accountancy, business consultancy and recruitment. There has been no significant difference in the pattern of entry of males into different sectors.

Entrepreneurial Motivations

Women’s motivations for entrepreneurship differ slightly to that of men (see Figure N). In 2004, the most important motivation reported by women was to achieve independence and freedom, cited by 42% of women. The next most highly ranked motivations for women were to achieve financial independence (40%) and to undertake the challenge of entrepreneurship (37%). Male respondents also ranked these 3 factors as their most important motivations, although the rank ordering of these motivating factors by men and women was different. Nearly half of men ranked financial motivations (49%) and the challenge of entrepreneurship (49%) as their main motivating factor. Only 26% of men cited independence and freedom as their main motivation.

Other factors played a much lesser role in motivating individuals towards entrepreneurship. Similar proportions of women and men cited that their motivations entailed the pursuit of a hobby (12%) or dissatisfaction in their current job (6% of women, 5% of men). Some gender differences were discernible in the number of women and men who stated that their motivation was concerned with providing for their family, cited by 5% of women but only 1% of men, and in the search for esteem, cited by 3% of men but only 1% of women. Overall, however, these differences are slight and not statistically different.

Entrepreneurial Aspirations

Prior research has consistently noted that women-owned enterprises tend to be smaller

Figure M: Types of businesses being started by gender 2001 - 2004
Source: 2001 – 2004 GEM Scotland Survey

Figure N: Main motivations for thinking about starting a business by gender
Source: 2004 GEM Scotland Survey
than those owned by men. Some researchers suggest that there is a bi-modal profile of male and female owned businesses, based on business size and performance. The GEM data allows us to explore whether women thinking about starting a business have lower levels of aspiration for their business than do men. Aspirations for business size can be determined by an analysis of the number of owners involved in the business at start-up and in the anticipated levels of performance over time.

An analysis of individuals who are in the process of starting in business shows statistically significant differences between men and women with regard to the number of owners involved in the start up (Figure O). However, unlike previous research which stresses that women are more likely than men to start in business on their own, the GEM Scotland 2004 data suggests that two thirds of male nascent entrepreneurs (67%), but only 54% of female nascent entrepreneurs, report starting in business on their own. A much higher proportion of women (35%) than men (14%) intend to start in business with one other owner. Men are, however, more likely than women to intend to start business in larger teams. Nearly 17% of men, but only 11% of women, intend to start in business with a team of between 3 and 5 owners. Very few people start businesses in larger teams, but it is noticeable that 3% of men, and no women, reported starting up in a team of 6 or more other owners.

A similar pattern of ownership was seen among the new, baby businesses that are less than 3 years old. Of these, 72% of men compared with 63% of women reported starting up by themselves as a single owner. Over a quarter of women (26%), but only 18% of men started in business with one other owner. Interestingly, women were more likely to have started in business as part of a larger team based venture, although these are relatively unusual for both men and women. In total, 9% of women reported starting their venture with 5 or more owners, compared with 2% of men who started their business in this way.

Slightly different patterns were seen among the more established businesses. In this group of mature enterprises, 65% of women and 67% of men were in business on their own. More women (27%) than men (20%) had one other owner. Those businesses that had 3 or more owners were more likely to have been started by men. In summary, we see significant differences in reported patterns of business ownership by men and women.

One measure of anticipated business performance is the numbers of jobs that entrepreneurs intend to create within their business over a five-year period. Distinctive and statistically significant differences emerged between men and women, both among those who intended to start up an enterprise and those that were already engaged in business ownership.
In 2004 among nascent entrepreneurs, gender differences became very pronounced when questioned about their anticipated five-year employment creation plans. The median number of jobs that nascent women entrepreneurs anticipated creating five years hence was 3, while for men the median number of anticipated jobs created was 5.

Gender differences were also notable, and statistically significant, among owner-managers of new businesses. The median number of jobs that had already been created by women-owned enterprises was 0, while the median number of jobs created by male-owned enterprises was 0.3. Their anticipated job creation, five years hence, showed marked gender differences. The median number of jobs that female new business owners anticipated creating was 1, a much lower proportion that the median number of jobs (4) that male entrepreneurs anticipated creating.

An analysis of previous GEM Scotland data (2002 – 2004) shows that these gender differences, both in terms of current job creation and anticipated job creation five years hence, have been consistently reported over the past three years (see Table D). While it is highly likely that male nascent entrepreneurs consistently over-estimate their anticipated five year job creation, it is also apparent that the median number of jobs that have been already created by new male owned enterprises is consistently higher than that of women-owned enterprises. Conversely, women entrepreneurs report more realistic numbers of anticipated jobs that they expect to create over a five-year period. New women-owned enterprises also, however, currently employ fewer people than do male-owned enterprises.

### Barriers to Entrepreneurship

Given the relatively low level of entrepreneurial activity among women in Scotland, it is worth exploring the factors that deter women from entrepreneurship. By far the greatest constraint for both women and men is a financial barrier including a fear of debt, being unable to raise sufficient finance to start the business and the loss of secure income from employment. This factor was cited as influential by half of all men (51%) and women (50%) and in equal measures
by both younger and older adults. The next most important barrier to entrepreneurship was a lack of interest, cited by 15% of men and 18% of women. Concern about a lack of skills affected 12% of women and 11% of men and the lack of a business idea affected 9% of women and 10% of men (Figure P).

Three barriers showed statistical differences in their effect upon women and men. Women were far more likely to be affected by the amount of time involved in starting a business and the effect of this on domestic life. In total, 12% of women, but only 7% of men cited time commitment as a barrier to entrepreneurship. Women were also significantly more likely to cite their age as a deterrent to business start-up. In total, 10% of women, compared with 7% of men cited age as a constraining factor. When analysed by age bands, it is individuals within the older age ranges (45-54 and 55-64) that are most likely to cite their age as being a barrier. Within the oldest age group (55-64), 36% of women, but only 25% of men, report age to be a barrier. Within the 45-54 age group, 11% of women, but only 7% of men, report age to be a barrier. Only 3% of men and 1% of women reported complexity of process and the regulatory environment to be a barrier to business entry. Among younger adults, there was a significant difference between the proportion of males (13%) and females (6%) stating that the lack of a business idea was a barrier.

Gender and Business Finance

Figure Q shows the differences in finance sources used by male and female entrepreneurs. For men, the most frequently used source of business finance was bank overdraft, used by 39% of men, followed by friends and family (25%), unsecured bank loans (23%) and government grants (19%). These finance sources were also among the most commonly used by women, but statistically significant gender variations are apparent. For women, the most important source of finance came from friends and family, used by 35% of all female entrepreneurs. In addition, government grants were used by a quarter (25%) of all women entrepreneurs. Clear and statistically significant gender differences were apparent in the use of bank finance, however. While 39% of men used a bank overdraft to finance their business, only 21% of women used this finance source. Men were also more than twice as likely to use an unsecured bank loan (23%) than women (10%). Indeed, individual investors were a more frequently used source of business finance for women (11%) than unsecured bank loans.

While the gender differences in the usage of bank supplied business finance are remarkable, it is interesting that an analysis of refusal rates failed to show any gender differences. Overall, 4% of men reported that they had tried and failed to gain an unsecured bank loan and an equal proportion (4%) of men reported a failure to access a bank overdraft. By comparison, only 1% of women stated that they had tried and
failed to get an unsecured bank loan and the same proportion (1%) of women also failed to access bank overdraft finance.

In conclusion, the TEA rate for women over the 2000 – 2004 period remained significantly lower than the male TEA rate. However, for the first time in 5 years the Scottish female TEA rate has matched the UK female TEA rate. The Scottish female TEA rate has shown a slow but steady increase over the past 5 years. The male TEA rate has been more volatile, due to a high variance in new business activity rates among young males. Women tend to opt for entrepreneurship later in their lives than men. The proportion of women who believe they have the knowledge and skills to start a business has increased over the past 5 years. There has also been a steady rise in the numbers of female entrepreneurs entering the business service sector. Finally, this data shows gendered methods of financing businesses, but reassuringly no gender difference in rates of bank refusal.

1 www.scottishbusinesswomen.com
6 The median and not the mean has been used to cancel out the effect of outliers in the small sample.
The Location of Entrepreneurial Activity in Scotland

In this chapter we compare Total Entrepreneurial Activity (TEA) rates between urban and rural as well as accessible and remote Scotland. We also explore the relationship between TEA rates, location, and the origin of the respondents in our 2004 sample.

Scottish Executive defined urban/rural and accessible/remote Scotland

Regional development is one of four key outcomes of the updated Framework for Economic Development in Scotland (FEDS). Table E shows the Urban Rural Classification released by the Scottish Executive in 2004.

The Scottish Executive’s core definition of rurality classifies settlements of 3,000 or less people as rural (5 & 6). Categories 1 to 4 are urban. Accessible settlements are those in categories 1-3 and 5, with remote settlements being those in categories 4 and 6. The population proportions in each of the 6 categories by local authorities were used to classify local authorities by geography i.e. whether a local authority was mainly urban or rural and mainly accessible or remote. Below are two maps showing local authority areas which contain higher population proportions of urban over rural (Map 1) and accessible over remote (Map 2).

All GEM2004 respondents were assigned to a local authority based on their full postcode. The TEA rates in urban/rural and accessible/remote local authorities could then be calculated. The Scottish data suggests differences in the rate of TEA between local authorities that are mainly...
Significant differences in average TEA rates were found between mainly urban and mainly rural local authorities, and between mainly accessible and mainly remote local authorities. In Scotland, the average TEA rate for mainly urban local authorities is 4.7% compared to 7.0% in mainly rural local authorities. The average TEA rate in mainly accessible local authorities is 4.5%, very close to average urban TEA rates, but half the TEA rate for mainly remote local authorities (9.2%).

In his research into business success in the English countryside, Keeble (2002) found that "(m)ost rural entrepreneurs are in-migrants, whereas most urban entrepreneurs are locally-born". Using the GEM Scotland 2004 data, we can test whether the same holds true in Scotland using the Scottish Executive’s definition of urban and rural.

Only 25% of entrepreneurs in urban areas were life-long residents i.e. individuals who had lived all their life in the region in which they now resided. An additional 35% of urban entrepreneurs were internal migrants i.e. people who were born in Scotland but had moved into the area from somewhere else. Thus the GEM Scotland 2004 data does not support Keeble’s assertion that most urban entrepreneurs are local. However, most urban entrepreneurs are Scottish.

In mainly rural local authorities, only 18% of the entrepreneurs GEM sample in 2004 were life-long residents. This supports Keeble’s proposition that most rural entrepreneurs are not locals.

**Urban, accessible and remote Scotland**

Keeble has suggested that it is useful to compare small firm creation in urban, accessible and remote areas. Accordingly, we have reclassified local authorities into mainly urban, accessible or remote. For present purposes, we have classified local authorities with the majority of the population in categories 1 & 2 as urban, local authorities that are mainly in categories 3 & 5 as accessible and local authorities that are mainly in categories 4 & 6 as remote. When classified this way, the Scottish data demonstrated a clear and significant pattern. The TEA rate for mainly urban local authorities in Scotland is 4.8% and for mainly accessible Scottish local authorities it is 4.1%. For mainly remote local authorities it is 9.2%, double the average TEA rate for mainly accessible local authorities.

Although the absolute number of respondents who are nascent or baby business owner/managers is small, it is also worthy of note that TEA rates show a significant gender difference only in mainly urban areas (see Figure R) where the female TEA rate is 2.7%, compared with a male TEA rate of 6.8%. The female urban TEA rate is also one third the TEA rate of men and women living in mainly remote local authorities (both at 8.5%). TEA rates by gender in mainly accessible local authorities were similar (4.1% female and 4.6% male).
Urban, Remote and Accessible Scotland by origin

Figure S shows that non Scots born GEM2004 respondents who lived in a mainly urban local authority had a TEA rate of 11.6%, significantly higher than the TEA rate of Scots born respondents (3.3%). TEA rates in mainly accessible local authorities were found to be also slightly but not significantly higher for non Scots born (5.3%) than Scots born (3.8%). In mainly remote local authorities, the difference between TEA rates of Scots born (6.5%) and non Scots born (20%) was highly significant. The Scottish data therefore suggests that new business activity among those born outside Scotland in mainly urban and remote local authorities is significantly higher than that of Scots born residents.

Table G compares, for urban, accessible and remote areas, the TEA rate by origin to the contribution made by groups of different origin to the pool of entrepreneurs in the sample. In mainly urban local authorities, non Scots born make a greater contribution to new business activity (42.6% of the entrepreneurs) in relation to their percentage of the sample (17.6%) than Scots born who make up 82.4% of the total sample and contribute 57.4% of the entrepreneurs. In other words, there are 4 times as many Scots born as non Scots born in the sample, but they contribute less than 2 times as many entrepreneurs.

In Table G, Scots born in the sample are classified by whether or not they had lived all their life in the region where they now live (life-long residents) or had not lived their whole life in the region in which they now live (internal migrants). In mainly urban local authorities, the TEA rate comparisons for life-long residents versus internal migrants in the three types of local authorities (urban, accessible and remote) are as follows: 2.8% versus 4.0%, 1.8% versus 5.3% and 5.7% versus 7.4%. In each case, it was found that internal migrants make a greater contribution to the overall population of entrepreneurs than life-long residents. In mainly urban local authorities, life-long residents made up the largest proportion of the total population (44.1%) but made only the third highest contribution of entrepreneurs.

Table G: Relative contribution to new business activity by location and origin

Source: 2004 GEM Scotland Survey

<table>
<thead>
<tr>
<th>Location</th>
<th>Scots born</th>
<th>Non Scots born</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>URBAN</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of response</td>
<td>Lifelong residents</td>
<td>Internal migrants</td>
</tr>
<tr>
<td>TEA rate</td>
<td>2.8</td>
<td>4.0</td>
</tr>
<tr>
<td>% of all entrepreneurs</td>
<td>25.5</td>
<td>31.9</td>
</tr>
<tr>
<td>% of all respondents</td>
<td>44.1</td>
<td>38.2</td>
</tr>
<tr>
<td><strong>ACCESSIBLE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of response</td>
<td>Lifelong residents</td>
<td>Internal migrants</td>
</tr>
<tr>
<td>TEA rate</td>
<td>1.8</td>
<td>5.3</td>
</tr>
<tr>
<td>% of all entrepreneurs</td>
<td>14.3</td>
<td>57.1</td>
</tr>
<tr>
<td>% of all respondents</td>
<td>33.1</td>
<td>44.4</td>
</tr>
<tr>
<td><strong>REMOTE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of response</td>
<td>Lifelong residents</td>
<td>Internal migrants</td>
</tr>
<tr>
<td>TEA rate</td>
<td>5.7</td>
<td>7.4</td>
</tr>
<tr>
<td>% of all entrepreneurs</td>
<td>21.4</td>
<td>35.7</td>
</tr>
<tr>
<td>% of all respondents</td>
<td>34.9</td>
<td>44.7</td>
</tr>
</tbody>
</table>
(25.5%). Internal migrants contributed 31.9%, in-migrants 34% and immigrants contributed only 8.5% of the entrepreneurs.

In accessible local authorities, life-long residents made up the second largest proportion of the sample (33.1%) but contributed only 14.3% of the entrepreneurs. Internal migrants by contrast contributed 44.4% of the sample and 57.1% of the entrepreneurs. In-migrants comprised a smaller proportion of the sample (18.0%) but contributed 28.6% of the entrepreneurs, twice as many as life-long residents. There were no nascent or new business owners among the immigrant respondents in the mainly accessible local authority areas.

In mainly remote local authorities, life-long residents contributed only 21.4% of the entrepreneurs, while internal migrants provided a further 35.7%. In-migrants contributed 28.6%, and immigrants, who comprised only 3.3% of the sample, made up 14.3% of the entrepreneurs.

In conclusion, new business activity varies by respondent location and respondent origin. Contrary to Keeble’s findings for England, we find that a minority of entrepreneurs in both urban and rural areas were local. TEA rates are highest in local authorities that are mainly remote. Life-long residents, i.e. respondents who have lived all their life in the area, have the lowest TEA rates. Females in urban areas have particularly low TEA rates. Internal migrants comprise almost 60% of the entrepreneurs in accessible areas, making up for the relatively low contribution of life-long respondents. Across all areas, in-migrants consistently deliver around 30% of the entrepreneurs while making up around 15% of the sample. Immigrants comprise a very small proportion of respondents and entrepreneurs. They appear to make the greatest contribution in remote areas.

2 10% of the sample could not be classified and were omitted from the analysis.
6 This is slightly lower than the proportion for all in-migrants given in Chapter 3. This is because 10% of the sample could not be classified by location.
In this chapter, we review 5 years of GEM Scotland data on the financing of new businesses and the characteristics of informal investors in new businesses. Figure T shows the reported rate of respondents answering yes to the statement “you have, in the past 3 years, personally provided funds for a new business started by someone else, excluding purchases of any stocks or mutual funds”, for respondents in Scotland, the UK, and small high income nations\(^1\). It suggests that at the beginning of the period, UK new business informal investment rates were at the small high income nation average level, but have steadily declined to Scottish levels. Informal investment in Scotland has remained at less than half the average for small high income nations throughout the period, dipping in 2002 then recovering to 2000 levels in 2004, in line with the trend in the number of nascent and new businesses in those years as reported in Chapter 3.

The average annual amount of investment by individuals in new businesses owned by others for the period 1999 to 2003 (reported by respondents in 2000 to 2004) is estimated at £390 million. This is based on a total of 104 reported investments from a total sample of 9,563 respondents\(^2\). Trimming the largest 5% of reported investments to remove the effect of very large (and possibly exaggerated) reported amounts reveals a more prudent but still very large annual average investment of £178 million. This estimate assumes that informal investors have invested only once in the past 3 years. A small but unknown number of individuals may have invested in more than one new business owned by someone else over a 3 year period.

Figure U shows estimates of the total amount of new business informal investment in Scotland, early stage equity investment by business angels and institutions in early stage ventures, and formal venture capital by members of the British Venture Capital Association (BVCA) in Scottish early stage ventures for the years 2000 to 2003. The data in Figure U on equity investment in early stage ventures and BVCA early stage investments is taken from Harrison and Don (2004)\(^3\). These investments can be thought of as “follow-on” equity investments by non family members and institutions in young businesses that may have benefited from informal investment flows at start-up. They demonstrate the relative size of new business informal investment, and suggest that informal investment in new business recovered faster than early stage equity investments following the crash in investing after 9/11. They also show the diminished role of BVCA members in early stage investment in Scotland in 2002 and 2003.

**Informal investment by type of investee**

78% of Scottish new business informal investors in the GEM2004 sample invested in family members rather than friends, neighbours, work colleagues or strangers, compared with 55% of informal investors in the UK-wide sample. This tendency for Scots to invest in family
rather than non-family is quite consistent over the past 5 years. On average, 76% of Scottish investors in our GEM sample have invested in family members during the period 2000 to 2004, compared with around 50% of informal investors in the UK and across GEM nations generally.

The average amount invested by new business informal investors in Scotland in the 2000 to 2004 period differed by investee type. The median investment size for family members was around £6,000, but ranged from £26 to £600,000. The median investment in friends and neighbours (which amounted to 17% of all investments) was £3,000. Only two investments in work colleagues were recorded in the 5 year period, one of £7,000 and one of £40,000. (By contrast, 15% of new business informal investments across the UK in 2004 were in work colleagues.)

Only 4.3% of new business informal investments in Scotland in this 5 year period were "business angel" type investments, i.e. investments in new businesses owned by strangers. This is similar to the UK rates of 3.5% for 2003 and 2.8% for 2004, but lower than the average rate for GEM nations of around 10% of new business informal investments\(^4\). The four individuals who invested in a stranger’s new business in Scotland were all in their late 50’s or 60’s. Three were males and one was female. The median investment was around £10,000, and ranged from £2,500 to £15,000. Clearly, investing in new businesses founded by strangers is extremely rare in Scotland. We estimate that 0.016% of the Scottish working age population, around 600 people, have invested in a stranger’s new business each year on average over the past 5 years. However, this figure should be treated as a very rough estimate.

Business angels put more money into early stage businesses than new businesses. Harrison and Don (2004) calculated that business angels funded around 27% of the total early stage investment in Scotland between 2000 and 2003, when the distorting effect of the three largest funding deals each year are excluded. This amounts to a total of £115 million\(^5\), and would include the equity portion of our estimated £24 million of investment by strangers (business angels) in new businesses during that period.

In the 2004 sample, there are some significant differences by gender, wealth and education among UK informal investors which are not apparent in Scotland. This may possibly reflect the small number of informal investors in the Scottish sample. In the UK, informal investment rates increase with income for males but not for females. The rates also increase with educational level for both males and females. Finally, 74% of investments by females in the UK were in family members, compared with only 44% of investments by males.

In-migrants and immigrants into Scotland, who made up less than 20% of the 2004 sample, contributed over 40% of the new business informal investment. Their rate of informal investment was three times that of those born
in Scotland. However, this difference was not found in either 2003 or 2002, and while the difference in informal investment by origin in the 2004 sample is statistically significant, it does not reflect a trend. This is contrary to the consistently higher new business creation rates of those born outside Scotland in our 2002, 2003 and 2004 samples.

Table F shows the trend in median start-up funding and the proportion of this funding that nascent entrepreneurs expect to fund themselves (also expressed as the median figure) from 2002 to 2004. This suggests a tendency of falling capital intensity and increasing self-funding in both the UK and Scotland. In both 2003 and 2004, if the investments were ranked by size, 75% of them would be below £50,000 in the UK, whereas for Scotland the same figure was £20,000. The corresponding figures for 2002 are £60,000 for the UK and £120,000 for Scotland. This suggests that the proportion of capital-hungry start-ups is now lower in Scotland than in the UK as a whole.

**Funding sole-owner versus multi-owner new businesses**

In 2004, 3% of the Scottish sample were “active” nascent entrepreneurs, and two-thirds of these (65%) expected to be the sole owner-managers of the business. The remaining one third expected that their nascent business would have 3.1 owners on average. The expected average (5% trimmed mean) investment required by these nascent entrepreneurs to start the sole owner businesses was £12,000 (rounded to the nearest £1,000), compared with £28,000 for the multi-owner nascent businesses. By grossing up to the population of nascent firms in 2004 using the estimates in Chapter 3, we calculate that around £950 million would be required to fund the 79,000 nascent single owner firms and around £360 million would be required for the 13,000 multi-owner firms.

This is probably an overestimate of total new business funding needs. A more realistic estimate might be based on the number of firms started in one year that survive into the next year. We estimate that 32,000 sole owner businesses and 1,000 multi-owner businesses started in 2003 and survived into 2004. In 2003, the expected average (5% trimmed mean) funding needs stated by nascent entrepreneurs were £13,000 for sole owner businesses and £18,000 for multi-owner businesses. From this, we calculate the total start-up funding was £416 million for the sole owner one year old businesses and £18 million for the multi-owner one year old businesses. Two-thirds of the funding for these new sole owner businesses and virtually all of the funding for the new multi-owner businesses was expected by nascent entrepreneurs in 2003 to have been provided by the entrepreneurs themselves. 61% of the sole owner nascent entrepreneurs in 2003 expected to fund all of the start up funding for their new business themselves.

Using the same method, we estimate that one year old businesses started in 2002 and surviving 2003 and 2004.
into 2003 would have required a total start-up funding of £777 million for the sole owner businesses and £318 million for the multi-owner businesses. The nascent entrepreneurs in 2002 expected around 90% of this to be self-funded and 85% of the sole owner nascent entrepreneurs expected to fund all of the start up needs themselves.

These estimates are based on very small samples and do not include the funding of businesses that start and do not survive into the following year. It is also possible that the nascent entrepreneurs’ estimates of funding needs were inaccurate. It does suggest, however, firstly that the scale of the funding of new business in Scotland is substantial, around £500 million to £1 billion per annum, and secondly that most of this is being funded by nascent entrepreneurs themselves.

**Expected payback**

In 2004, the median expected payback time estimated by nascent entrepreneurs for their investments in their own businesses was 1 year for the UK sample and 2 years for the Scottish sample. The median expected payback for both the Scottish and UK nascent entrepreneurs was at least 5 times their original investment. For UK and Scottish informal investors, the median payback time was 5 years. 54% of the UK informal investors and 63% of the Scottish informal investors did not expect to get any money back at all. This is a marked difference in both perceived payback time and perceived payback between nascent entrepreneurs investing in their own businesses and investors in other people’s new businesses.

Although numbers in the Scottish sample are too small to analyse in further detail, there are significant differences in expected payback time and payback amount by investee type in the UK sample. All business angels and 69% of investors in friends or neighbours expected a return within 5 years. However, only 51% of investors in close family members expected a return within 5 years, and a further 45% of family investors did not expect any return. When asked about payback amounts, 72% of business angels compared with only 19% of investors in friends or neighbours and 22% of close family investors, expected a payback of at least twice their investment. There is clearly a difference in payback expectations between most family/friends investments – aptly-named “love money” - and the more commercial approach of business angels.

In conclusion, informal investment in Scotland appears to have recovered to pre-2002 levels, but remains lower by comparison with other small high income nations. Nascent Scottish entrepreneurs appear to have more modest funding expectations and to be relying more on self-funding than in 2002. The total start up funding that entrepreneurs estimate they need to start their business remains substantial; to the order of £500 million to £1 billion per annum.

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1. Excludes Ireland and New Zealand in 2000, and Israel in 2003
2. Annual Scottish new business informal investment was calculated by taking the 5% trimmed mean investment amount reported by informal investors as their most recent investment in the past 3 years, dividing by 3, grossing up for the population over the age of 18 at the 2001 census, and assigning this amount to the year before the data was collected.
5. Harrison and Don, ibid, p.38.
Introduction
This chapter reviews progress in entrepreneurship policy and programmes from 2003 and highlights the major developments across Scotland in 2004. Scotland’s declining population was emphasised in previous GEM Scotland reports. It has become central to entrepreneurship policy in 2004.

Policy
2004 saw two major policy developments. The first, “New Scots: Attracting fresh talent to meet the challenge of growth”, was launched in February 2004. More commonly referred to as the ‘Fresh Talent’ initiative, this policy was in reaction to Scotland’s falling population. Through four key objectives, the policy aimed to “reverse the population decline that threatens our future prosperity, through a modern scheme of managed migration.”

The first objective was to promote Scotland as a place to live and work. The Scottish Executive launched the “Scotland is the place” website as part of this initiative in February 2004. The website provided up to date news on the graduate and employment market as well as offering detailed case studies of recent immigrants to Scotland. It was planned to link this site to the Relocation Advisory Service, which tied in with the second objective which is to promote Scotland as a destination for people applying for UK Work permits. The Relocation Advisory Service started in October 2004 in Glasgow. It offered a wide range of services from work permit application support to finding leisure activities. In its first 3 months the service catered for “939 customers from 80 different countries. The four most common countries are the United States, India, Poland and Nigeria”.

Immigration policy is not a devolved issue and therefore this objective was the source of much discussion between the Scottish Executive and UK government. It was hoped that by the end of 2004, a degree of autonomy would be given to the Executive to craft Scotland as an attractive destination. The final two objectives were to encourage students to stay in Scotland after graduation and to improve first impressions on arrival in Scotland.

The second major policy development was the Framework for Economic Development of Scotland (FEDS). FEDS was updated and as a result the original “Smart, Successful Scotland” (originally published in 2001) was also refreshed and republished titled, “Smart, Successful Scotland: Strategic Direction to the Enterprise Networks and an enterprise strategy for Scotland” (SSS). This development was important to entrepreneurship policy in Scotland for two reasons. Firstly, the new FEDS set out entrepreneurial dynamism as one of the key factors contributing to economic growth. In “Building a Better Scotland, Spending Proposals 2005 – 2008: Enterprise, Opportunity, Fairness” the Executive openly endorsed the need for a risk taking attitude towards business in order to create the dynamism needed in the Scottish economy. “Funding for the Enterprise Networks will increase by £27m by 2007-2008. And the
Enterprise in Education programme will continue to engage with school children across Scotland, to achieve a long term benefit. This was taken forward in SSS through the theme ‘Growing Businesses’. The policy’s objective was to develop entrepreneurial dynamism by starting and growing innovative companies.

“New businesses are the lifeblood of the economy. We have to create the conditions in which people want to, and do, start and grow businesses. But Scotland’s economic growth also depends on existing businesses growing to scale where they can compete effectively on the world stage.”

Secondly, the SSS provided new strategic direction to the Enterprise Networks and promoted the idea of partnerships between both public and private bodies across Scotland.

Thirdly, the new SSS recognised a need to reduce disparities among and between regions in Scotland.

Programmes

In 2004, the main headline developments in entrepreneurship programmes continued to be support for start-ups, access to finance and high potential entrepreneurship. However, the programmes were dominated in August by the launch of Futurebuilders Scotland programme by Communities Scotland. This programme was in direct response to the Scottish Executive’s review of social economy policies in 2003 and promoted the emergence of strong regional or national social enterprises. It was also for those applicants who aim to make a contribution to reducing inequality between the most affluent and most disadvantaged in Scotland. Priority was given to those organisations that were seen to match closely with the objectives of the Closing the Opportunity Gap, which was also launched in 2004. £18million was earmarked for investment in 2004 and 2006 in the social economy sector.

The fund offered:

- £12m Investment Fund to improve financial sustainability of existing social economy organisations.
- £4m Seedcorn Fund for new business ideas.
- £1m Learning Fund to help organisations develop skills to support business.

In addition, Futurebuilders Scotland included a Social Entrepreneurs Fund, which provided grants of up to £5,000. 15% of the total fund was targeted at 16 to 25 year olds.

“Social economy organisations, backed by Futurebuilders Scotland, will play an increasingly important role in delivering change resulting from these local processes.”

Support for Start-Ups

2004 saw a slight increase in enquiries through Business Gateway (a one-stop shop for business people launched in 2003) to 100,000. The number of business start-ups formally ‘assisted’ by Scottish Enterprise grew to 9,700 compared with a target of 9000 assists. Of this number of assists, 37% were women.
A major policy initiative was the creation of the Business Start-Up Scheme launched in October. The two year pilot scheme aims to provide £1,000 grants to 18 to 30 year olds. 600 awards were provided in the last three months of 2004.

**High Potential Entrepreneurship**

For Scottish Enterprise’s High Growth Start Up Unit, the original target of 30 high growth starts in 3 years looked achievable by the end of 2004. In reaction to this, the Unit's remit was extended to 55 high growth starts by the end of 2007.

**Access to Finance**

During 2003, Scottish Enterprise’s Business Growth Fund (BGF) provided over £5m to 60 businesses. The BGF provides loans and equity investments from £20,000 to £100,000. By year end 2004, the Scottish Co-Investment Fund, funded by the Scottish Executive and European Regional Development Fund, had invested £26.8m in start-ups and young businesses seeking to grow. The Investment Readiness Programme helped over 100 companies secure more than £13m of growth funding in its first 18 months of a 2 year pilot.

In conclusion, policies in 2004 have reflected the need to increase entrepreneurial activity and build entrepreneurial dynamism in Scotland. The Fresh Talent initiative launched by the Scottish Executive is aimed at making Scotland a more attractive place to live and work to immigrants. The Futurebuilders Programme run by Communities Scotland will support social enterprise creation. Programmes to support access to finance for new businesses were boosted by the introduction of the Business Start Up Scheme targeted at 18 to 30 year olds.

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2 www.scotlandstheplace.com/sttp/sco_display.jsp accessed 01/03/05.
4 Scottish Executive (2005), ibid.
6 Scottish Executive (2004), ibid, p2.
7 Scottish Executive (2004), ibid, p5.
8 Thanks to Brian McVey from Scottish Enterprise for providing a synopsis of entrepreneurship programmes, activities and figures contained within this section.
10 A Social Economy Unit has been established for this purpose by Communities Scotland.
In this fifth annual Scotland GEM report we have recalibrated 5 years of data to better capture the broad trends in new business activity in Scotland. Over the 5 years, the data seems to show a slight increase in new business activity, albeit with a dip in the middle of the period coincident with a shallow recession and the psychological impact of 9/11. Scotland’s new business activity still lags behind other small high income nations, although it seems to be gradually catching up with the UK average. Attitudes to entrepreneurship are improving, particularly among women.

The demography of the nation remains a major issue for new business activity rates in Scotland. The Fresh Talent initiative, which sought to attract immigrants to Scotland, is threatened by the tightening of immigration by the UK government. However, as we showed in Chapter 3, although it is true that immigrants have relatively high rates of new business activity, they contribute less than 10% of all new business activity in Scotland. By contrast, in-migrants from elsewhere in the UK contribute around one third of all new business activity in Scotland, at least twice the proportion we would expect if all groups contributed equally. It makes sense therefore to broaden the Fresh Talent initiative to explicitly include the rest of the UK as a target source of in-migration.

In the 2003 GEM Scotland report, we suggested that the Scottish Executive consider supporting PSYBT to extend its successful loan programme beyond the current remit of young adults aged 30 or less, or work with another social enterprise to this end. In the event, the Scottish Executive decided to provide £1,000 grants to 18 to 30 year olds through a new Business Start-Up Scheme. The data quoted in Chapter 6 suggests that there has been a decline in the level of funding of individual startups and a heavier reliance on self-funding over the past 3 years. While this imposes discipline on an entrepreneur, it may also restrict growth potential. We found no evidence that younger adults were more likely to see lack of finance as a barrier to starting in business than older adults. Further consideration could therefore be given to quasi-government funding of startups for the over 30’s, given the relative reluctance of most Scottish nascent entrepreneurs to seek external private sector funding.

The launch by Communities Scotland of the Futurebuilders Scotland programme, including a Social Entrepreneurs Fund for people of all ages which can provide grants of up to £5,000, is a welcome development. While over 5% of the 2004 GEM sample said they were trying to start a social enterprise, only one third of these people had actually taken steps to get it going in the previous 12 month period. If the Social Entrepreneurs Fund is well publicized, it could spur these good intentions into action.

In 2004, the number of enquiries through Business Gateway has grown slightly on its launch year and appears to be broadly in line with the number of nascent entrepreneurs in the population. Scottish Enterprise will need to continue to market Business Gateway aggressively to reach each new cohort of nascent entrepreneurs.

The number of business startups formally “assisted” by Scottish Enterprise has increased to almost 10,000, and the High Growth Start Up Unit has had its target extended to 55 high growth starts by end 2007. This growth in assistance and targets is welcome, but with around 30,000 new businesses surviving into the next calendar year, many new entrepreneurs are not getting formal assistance from Scottish Enterprise. Many nascent entrepreneurs will not want or need assistance, of course, but it seems reasonable to expect that around 50% might recognize the benefits of a high quality public sector programme.

The very low rate of female TEA in urban areas compared with remote areas should be of particular concern to Scottish Enterprise, which has made female enterprise a priority area. This finding merits further research.
Appendix 1

Traditional analyses of economic growth tend to focus on large corporations and neglect the innovations and competition that small start-ups contribute to the overall economy. Unlike most studies, the conceptual model behind GEM takes a comprehensive approach and considers the economic contribution of all businesses within a country. Specifically, GEM considers that national economic growth is the result of two parallel sets of interrelated activities.

- Those associated with established firms (as shown in the top part of Figure 1)
- Those related directly to the entrepreneurial process (as shown in the bottom part of Figure 1)

For large corporations, the ability to affect national economic growth is influenced by general business conditions, (referred to as the General National Framework Conditions in Figure 1), specific to each country. These corporations influence economic growth primarily through the construction of new establishments, which in turn create job opportunities. In addition, when an old establishment (e.g., an old manufacturing plant) is replaced, new technologies are employed resulting in increased productivity. New establishments that positively affect the national economy in this way can be built by domestic firms or by multinational enterprises.

For potential entrepreneurs, the decision whether to start a business is influenced by additional characteristics within the existing business environment. These are referred to as Entrepreneurial Framework Conditions (see Figure 1). These conditions determine a country’s capacity to encourage start-ups and, combined with the skills and motivations of those who wish to go into business for themselves, influence the entrepreneurial process. When successfully combined, these conditions will lead to offshoot businesses, which in turn will increase innovation and competition within the marketplace. The end result is a positive influence on national economic growth. These dynamics, described in the lower part of Figure 1, are at the heart of the GEM project.

By considering the complementary nature of the mechanisms among different groups of firms, GEM links the nation’s economic growth to the interplay of established and new firms. This opens the door to a clearer understanding of why entrepreneurship is vital to the whole economy.

The relationship between entrepreneurship, corporations, and economic growth is complex and the GEM model as shown here illustrates in a simplified way the interplay of the three factors. By applying this model to a nation’s economy, important conclusions can be drawn.

As shown in Figure 1, a nation’s economic health depends on successful entrepreneurship combined with the force of established corporations. However, GEM has found that the beneficial value of this mechanism varies...
with the national income, as measured by GDP per capita.

At low levels of national income, the entrepreneurial sector provides job opportunities and scope for the creation of markets. As per capita income increases, the emergence of new technologies and economies of scale allows larger and established firms to satisfy the increasing demand of growing markets and to increase their relative role in the economy. At the same time, the numbers of business start-ups decrease as a growing number of people find stable employment. Finally, as further increases in income are experienced, the role played by the entrepreneurial sector increases again, as more individuals have the resources to go into business for themselves in an economic environment that allows the exploitation of opportunities. In high-income economies, through lower costs and accelerated technology development, entrepreneurial firms enjoy a newly found competitive advantage. Thus, entrepreneurs in countries with different levels of GDP per capita, face different challenges, and policies and conditions favourable to entrepreneurship in one country (or region) may not be effective or favourable in another. Any serious study of entrepreneurial activity should take these differences into account.

Since its inception in 1999, one of GEM’s major activities has been the creation of a large data set and the construction of harmonised measures of entrepreneurial activity. Based on the conceptual model described here, the GEM 2004 data set is based on the following types of data collection.

- Representative samples of randomly selected adults, groups ranging in size from 1,000 to almost 27,000 individuals, were surveyed in each country.
- Standardised national data were obtained from international data sources such as World Bank, International Monetary Fund and United Nations.
- Each GEM national team conducted up to 50 face-to-face interviews with experts in their respective countries chosen to represent nine entrepreneurial framework conditions. The national experts also completed a standardised questionnaire in order for GEM to obtain a quantitative measure of their opinions concerning their country as a suitable context for entrepreneurial activity.

Figure 1: GEM Conceptual Model
Source: GEM Global Report 2004
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