



Global Entrepreneurship Monitor

Scotland **2000**



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Foreword

This, the first Scottish GEM Report, marks an important milestone in our understanding of all that's entrepreneurship in Scotland when benchmarked against our fellow nations.

We at the Hunter Centre for Entrepreneurship at Strathclyde have made it clear what our goals are – to facilitate greater uptake of entrepreneurial thinking and action in its broadest sense across the student population and to inform policy.

Within this report there is good and bad news and some real surprises, not least when it comes to the low levels of Scots who have provided funds for other people's new businesses in the last 3 years. This is only half the average rate for all GEM nation states.

What appears to be fundamentally good news however is the fact that the distribution of entrepreneurial activity in Scotland is skewed towards younger adults (aged under 35) by comparison with the UK and that rates of entrepreneurial activity among young Scots are close to the average for all GEM nations. This significant finding tells us we may be on the cusp of a major economic change with a 'pull through' effect from young entrepreneurs. Sadly the older generations seem to remain stoutly resistant to the lure of enterprise by comparison to other nations.

The impact of a quality post-secondary education is self-evident from the study – on average women are half as likely to start a business as men, but equal the males if they have gone to University. Worryingly, those youngsters who can neither afford nor qualify for University are more than 4 times less likely to be entrepreneurial than Scots who benefit from post-secondary education - education must be available to all, not the chosen few.

And with respect to our culture we have a long way to go - attitudes towards entrepreneurship are more negative in Scotland than in the UK with over 40% of us Scots, compared to less than 30% in the UK, deterred from starting a business by the fear of failure.

Where do we go as a Nation now? Education is a fundamental tool in our battle to instill greater entrepreneurial levels in Scotland and there is clear evidence a University education encourages enterprise – can more of our children reap these benefits?

Our culture and social outlook remain stumbling blocks on the way to developing more businesses in Scotland. The message that enterprise is good for all, not just the entrepreneur, has not sunk in and perhaps that is because every child does not have the same opportunity.

There is no panacea but Government should and can do more to give every child an equal chance whilst Corporate Scotland and you and I could do more to give something back.

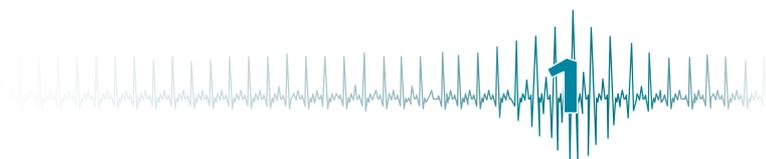
On a personal note, if I have a passion it is to see everyone adopt the spirit of enterprise. The heart of this nation beats well but it could be healthier. With a common purpose, focused policy that does not take a shotgun approach to key issues, more a rifle well aimed and a supportive private sector we can do better.

This GEM report give us the benchmark, let us hope in twelve months time we continue to move forward. Instilling entrepreneurship in a nation is not a quick fix, but you can always go faster...

Tom Hunter



Introduction



The Global Entrepreneurship Monitor (GEM) is a unique, international project. Its central aim is to understand the relationship between entrepreneurship and economic growth. Entrepreneurship is defined as: *“any attempt to create a new business enterprise or to expand an existing business, by an individual, a team of individuals or an established business”*. GEM was established in September 1997 as a joint research initiative led by London Business School and Babson College. The central aim was to bring together the world’s best scholars in

entrepreneurship to study the complex relationship between entrepreneurship and economic growth. In 1999, the project’s feasibility was demonstrated in a pilot study of 10 nation states: the G7 countries (Canada, France, Germany, Italy, Japan, United States and United Kingdom) and Denmark, Finland and Israel. GEM2000 added 11 countries: Argentina, Australia, Belgium, Brazil, India, Ireland, Korea, Norway, Singapore, Spain and Sweden. In addition, parallel GEM studies were conducted in Scotland and Wales, using exactly the same

methodology. GEM2000 also employed larger samples in each country, enhanced research methods and added a new dimension – an assessment of the role of venture capital in each country. The study focuses on three fundamental questions: *Does the level of entrepreneurial activity vary between countries and, if so, by how much? Does the level of entrepreneurial activity affect a country’s rate of economic growth and prosperity? What makes a country entrepreneurial?*

METHODOLOGY

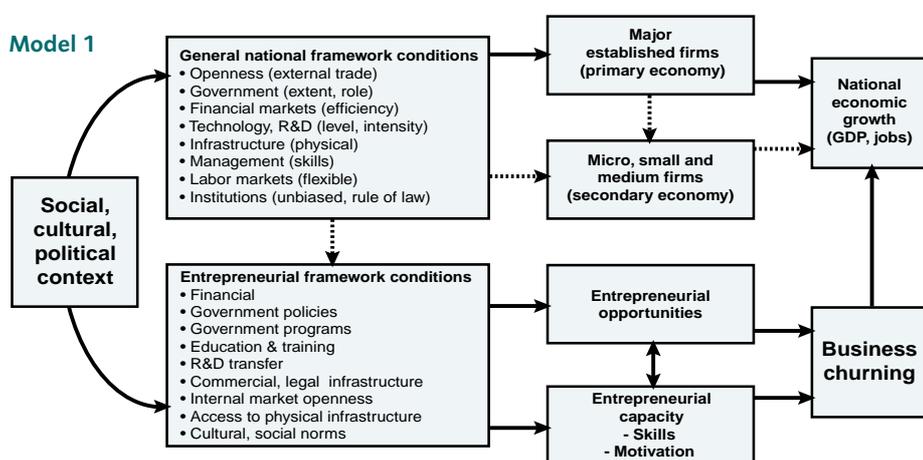
The general model that provides the basis for GEM is illustrated in Model 1. The model assumes that national economic growth is a function of two sets of interrelated activities: (a) those associated with major established firms – the top causal path in the model - and (b) those related directly to the entrepreneurial process — the bottom causal path in the model.

Major firms, often competing on a global scale, clearly make a major contribution to economic growth and prosperity.

What drives entrepreneurial activity is the perception of entrepreneurial opportunity combined with the skills and motivation to exploit it. When opportunity is combined with this the outcome is the creation of new firms and destruction of old ones. This process, famously labelled “creative destruction” by Schumpeter, is captured in the model by Business Churning. Despite the negative connotation, “creative destruction” has a positive impact on economic growth as declining businesses are replaced by new start-ups competitively manoeuvring their way into the market

To assess the model, a wide variety of data were assembled with the consortium of research teams working in each GEM country. First, a representative sample of 2000 adults was interviewed in each country using a standardized questionnaire, translated into the native language of each country. Respondents were asked precise questions about their involvement in, and attitudes towards, entrepreneurship. Second, a wide selection of standardised national data was assembled from a variety of sources such as the World Bank and United Nations. Third, each national team completed a one-hour, face-to-face interview with 36 experts in their country; these experts were selected to represent the nine *National Entrepreneurial Framework Conditions* referred to above. Fourth, each expert was asked to spend 15 minutes completing a brief questionnaire that involved providing an assessment of important features of their country’s entrepreneurial sector. Fifth, all national teams provided their own assessment of the current level of entrepreneurial activity in their country. For a full description of the GEM methodology see GEM2000 Executive Report pages 13-15.

Model 1





The key overall findings of GEM2000 are as follows:

- The level of entrepreneurial activity differs significantly between countries. In May/June 2000, the proportion of working age adults currently trying to start a business ranged from a high of 1 in 8 - 12 adults (in Brazil, the US, and Australia) to a low of 1 in 100 (in Ireland and Japan). The proportion of working age adults currently running a new business (less than 42 months old) varied from over 4% (in Korea, the US and Brazil) to less than 0.5% (in Ireland and Japan). Most European nations (including Scotland) occupied the middle part of this range.
- Entrepreneurship is strongly associated with economic growth.ⁱ Among nations with similar economic structures (i.e. excluding those with a high proportion of agricultural labour or high import/export ratios), the correlation between entrepreneurship and economic growth exceeds 0.7 and is highly statistically significant.
- Averaging across all nations in the study, men are twice as likely to be involved in entrepreneurial activity as women, with peak entrepreneurial activity among those aged 25-34. Female participation rates are significantly higher in nations with high levels of entrepreneurial activity.
- Levels of financial investment in new firms are highly associated with levels of entrepreneurial activity. Total informal investment activity (providing personal funds to other people's new businesses) is typically substantially higher than

total venture capital investment activity in new and young ventures.

- Education plays a vital role in entrepreneurship; both education to post-secondary level and the provision of high quality entrepreneurship education are important.
- The role that government plays in the economy is important. Overall, higher government involvement (as evidenced by higher taxation, inflexible labour markets, etc) is associated with lower levels of entrepreneurial activity.
- The perceived social legitimacy of entrepreneurship makes a difference. For example, countries in which many individuals felt fear of failure prevented them from starting a business, or in which respect for those starting new firms was lacking, or in which many people felt successful entrepreneurs would be resented, had lower levels of entrepreneurial activity.

The authors of the Global Entrepreneurship Monitor 2000 Executive Report developed the following general policy principles from their findings:ⁱⁱ

- The promotion of entrepreneurship, its role in society and the opportunities it presents for personal gain, appears to be critical for facilitating economic growth.
- Policies geared towards enhancing the entrepreneurial capacity of a society (i.e. the skills and motivation to pursue opportunities) will have the greatest impact on the level of entrepreneurial activity.

- Increasing the participation of women in entrepreneurship is necessary for long-term prosperity.
- For the greatest long-term impact, policies should encourage the involvement of people younger than 25 and older than 44 in the entrepreneurial process.
- Any government committed to sustained economic progress must ensure that all aspects of its economic system are conducive to and supportive of increased levels of entrepreneurial activity. This includes minimising taxation, ensuring access to labour, lowering non-wage labour costs, reducing the regulatory burden and making it easier to do business with the government.
- Policies should facilitate the development of a professional venture capital industry and create incentives for private individuals to invest directly in early-stage businesses.

The purpose of the Scottish GEM2000 Executive Report is threefold. First, to assess how Scotland is doing relative to the UK and to other small modern nations. Second, to identify the key factors that account for Scotland's level of entrepreneurial activity. Third, to suggest implications for public policy.

i For a detailed discussion of directions of causality see GEM2000 Executive Report 2000 p13-16

ii GEM2000 Executive Report available at <http://www.entreworld.org/gem2000>



Summary Highlights for GEM2000 Scotland

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- In Scotland in 2000, entrepreneurial activity (the proportion of working age adults trying to start a new business or owning and managing a business aged 42 months or less) was slightly lower than in the UK generally, but the difference is not statistically significant. Entrepreneurial activity in Scotland was close to the average for the 11 European nations covered in the study, but only one third the rate of the US.
- The distribution of nascent entrepreneurial activity in Scotland in 2000 was more skewed towards young adults (aged under 35) than any other GEM nation except Ireland and Finland. This is a very encouraging trend. Perhaps Scottish Enterprise's 10 year "Business Birth Rate Strategy" has had a disproportionate effect on the younger generation, particularly those with post-secondary education.
- Only 1.3% of Scots have provided funds for other people's new businesses in the last 3 years. This is only half the average rate for all GEM nation states and is more typical of nations with the lowest rates of entrepreneurial activity. Given Scotland's entrepreneurship rate, one would have expected this informal investment rate to be at least twice this level. Furthermore, over 80% of the investments by Scots were to close family members, compared with 50% for the UK and the GEM average. No investments were made by the Scottish sample in new businesses started up by colleagues or strangers.
- Attitudes towards entrepreneurship are more negative in Scotland than in the UK generally. An apparent exception is the higher level of belief among Scots that people trying to start a new business are respected for their efforts. But a relatively large minority (26%) of Scots felt that the wealth of successful entrepreneurs is resented (exceeded only by Brazil and India), and 74% of Scots felt that everyone should have the same standard of living – a majority exceeded in only 5 GEM nations. Over 40% of Scots were deterred from starting a business by the fear of failure, compared with less than 30% for the UK.
- Less than 30% of Scots working age adults knew someone personally who has started a business in the last 2 years. Less than 6% of Scots were business owner/managers. These levels of contact with entrepreneurs and experience of running a business are low in international terms.
- Less than 29% of Scots believed that good opportunities for starting a business will have developed in the area in which they live in the next 6 months. This is lower than the UK and GEM average, which were both 37%.
- In 2000, only half as many Scots women were starting or running new businesses as men. This is lower than the rate for the UK, but in line with the GEM average across 21 nations. Entrepreneurial activity rates of Scottish male and female university graduates were identical, however, and 4 times the average for all females.
- Scots with post-secondary education were more than 4 times as likely to be entrepreneurial than Scots without post-secondary education.
- Venture capital activity in Scotland in 1999 was second highest (after NE England) in the UK in terms of number of investments in early stage and expansion firms relative to the stock of VAT-registered businesses.ⁱ However, the average amount invested was relatively small. Venture capitalists in Scotland appear to be making smaller investments in more companies rather than placing heavy bets in relatively few firms with global potential, as in the US or in Greater London, which absorbed 63% of all early stage venture capital invested in the UK in 1999.ⁱⁱ

i Report on Investment Activity 1999 BVCA

ii See Mason C. and Harrison R. 1998 "The Geography of Venture Capital" paper presented at the Institute of Small Business Affairs Conference.



Entrepreneurial Activity in Scotland: How We Compare

In September 2000, Henry McLeish, then Minister for Enterprise and Lifelong Learning in the Scottish Executiveⁱ, responded to a report on declining new business startups in Scotland by declaring: *“The fundamental issue in Scotland is a lack of entrepreneurship.... We have changed dramatically as an industrial nation but, compared with Ireland, Finland and other small countries, entrepreneurship is failing to take off.”*ⁱⁱ

The Scottish GEM2000 survey tests these assertions by measuring entrepreneurial activity in a comparable way using unique data generated by 23 teams of leading entrepreneurship academics across 21 sovereign nations plus Scotland and Wales. Before GEM, measures of entrepreneurial activity tended to be based on firm startup rates based on government or bank statistics and were not readily comparable. The GEM project generates unique, comparable measures based on the proportion of individuals in the population practising entrepreneurship, rather than firm-level data.

The principal measure used to compare national rates of entrepreneurial activity in GEM2000 is the Total Entrepreneurial Activity (TEA) Index. It is calculated as the sum of two measures:

- 1. the nascent entrepreneurship prevalence rate,** i.e. the proportion of working age adults actively involved in the creation of a firm which they would own in whole or in partⁱⁱⁱ;
- 2. the new firm owner-manager prevalence rate, i.e.** the proportion of working age adults owning and managing new firms (less than 3_years old)^{iv}.

It includes individuals starting and running new businesses for themselves or for their employer, but some degree of business ownership is a requirement for inclusion. These measures were obtained by taking a representative sample of at least 2000 adults in each nation, and posing a standard set of questions using the same methodology^v. TEA rates for the 21 countries participating in GEM2000 as well as the rates for Wales and Scotland are given in Figure 1.

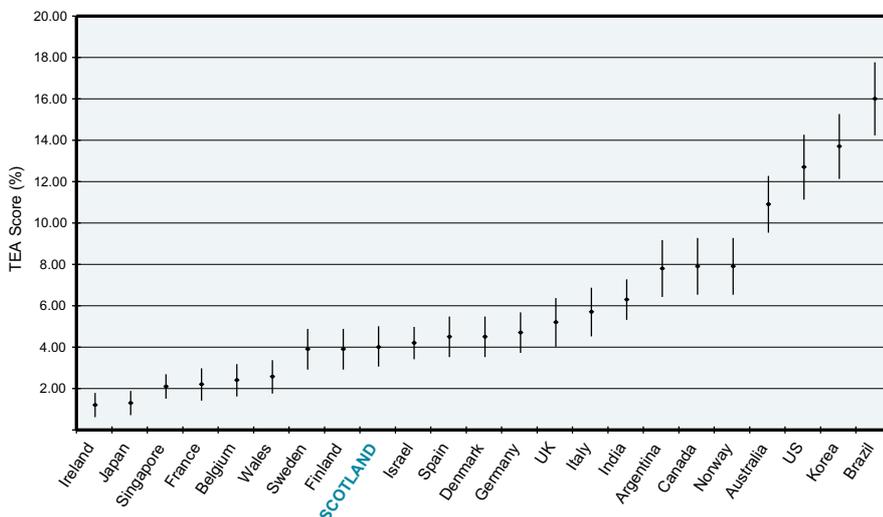


Figure 1 Total Entrepreneurial Activity prevalence rates by country (TEA index) (Nascent entrepreneurs plus new firm owners per 100 adults aged 18-64 [95% confidence interval], Standardized index)



The results suggest that the rate of entrepreneurial activity in Scotland is comparable to most European nations, the same as in Finland, and significantly higher than in Ireland. Immigrant, or "new world" nations (Australia, Argentina, Brazil, Canada, United States), with South Korea and Norway, have the highest rates of entrepreneurial activity.

Scotland is ranked 15th out of 23, while the UK is ranked 10th. However, there is no statistically significant difference between the UK and Scottish rates of entrepreneurial activity. Given the sample sizes, the difference of only one percentage point between Scottish and UK rates could be due to sampling error. However, we can be confident^{vi} that entrepreneurial activity in Scotland is significantly higher than France, Singapore, Japan and Ireland. It is not statistically different from Belgium, Wales, Sweden, Finland, Israel, Spain, Denmark, Germany, UK, and Italy. It is significantly lower than India, Argentina, Canada,

Norway, Australia, US, Korea, and Brazil. Entrepreneurial activity in Scotland is about 3 times lower than the average of the 4 most entrepreneurial GEM nations (none of which are in Europe), and about half the rate in the most entrepreneurial European nation, Norway.

Figure 2 shows the rates of nascent entrepreneurship (people actively trying to start a new business) and Figure 3 shows the proportion of people running a new business in all GEM2000 nations. Scotland achieves the same rank (14th) in both nascent entrepreneurship and new firm ownership. This suggests that there are no obvious anomalies in Scotland in the conversion rate of people trying to start a business into new firm owner/managers.

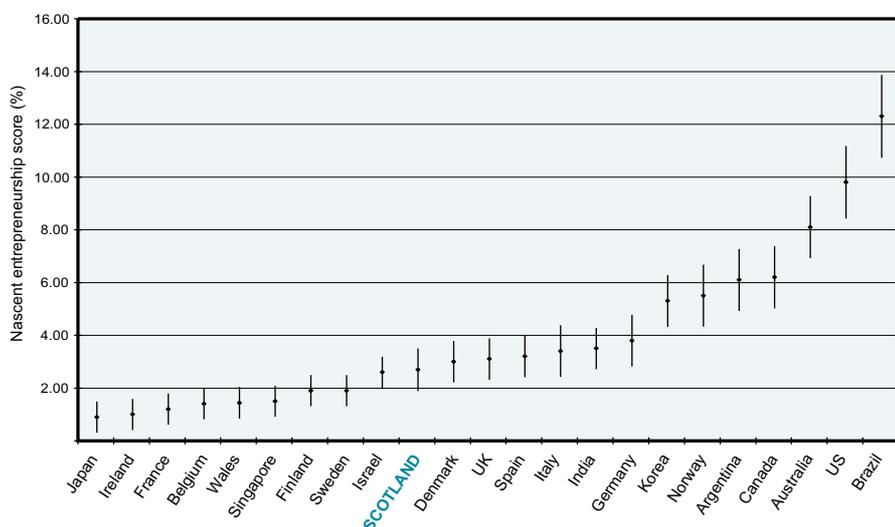


Figure 2. Prevalence rate of nascent entrepreneurs by country
(Persons actively trying to start a new business per 100 adults aged 18-64, 95% confidence interval)

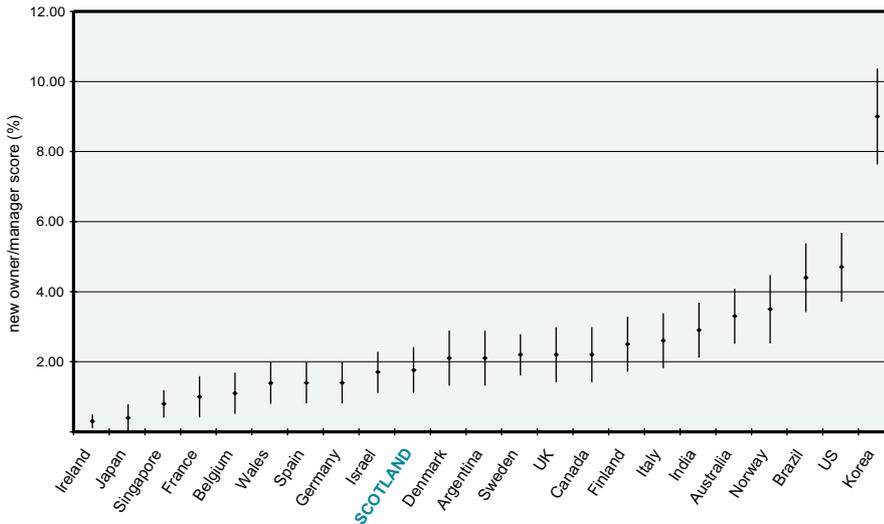


Figure 3. Prevalence rates of new firm owner/managers by country

(New firm owner/managers per 100 adults aged 18-64, 95% confidence interval)

For the purposes of this report, it seems most appropriate to compare Scotland in detail with other GEM nations of similar population size (Denmark, Finland, Ireland, Israel and Norway), as well as the UK and Wales. Comparing Scotland with other small modern nations, it is apparent that Scotland sits squarely in the middle of this group, with significantly higher entrepreneurial activity than Ireland and significantly lower entrepreneurial activity than Norway. On the basis of the GEM2000 data then, a suitable small modern nation for Scotland to aspire to in terms of entrepreneurial activity would not be Finland or Ireland, but Norway.

ⁱ The Scottish Executive was the Scottish Cabinet of the Scottish Parliament, a regional government of the United Kingdom. The Scottish Parliament, which opened on July 1 1999, had devolved powers over education and local economic development within Scotland. The Scottish GEM2000 survey thus covers the first full calendar year of a devolved Scottish administration.

ⁱⁱ Business A.M. 25 September 2000. Pages 1, 3

ⁱⁱⁱ A person was considered to be a nascent entrepreneur if he or she had engaged in any activity to start a firm in the last 12 months, expected to own part or all of the new firm once it became operational, and the initiative had not paid salaries or wages to anyone, including owner-managers, for more than 3 months.

^{iv} A person was considered to be a new business owner-manager if he or she reported managing an operating business and was a sole or part owner and the business had not paid salaries and wages to anyone, including owners and managers prior to 1997. This would include firms up to 3_ years old by June 2000.

^v Individuals who were both nascent entrepreneurs and new firm owner/managers were counted only once in calculating the TEA index. There were 7 such individuals in the standardized Scottish sample, which is about average among GEM nations.

^{vi} "statistical significance" refers to a calculation of where the range within which the average value of 19 out of 20 replications of the survey would be expected to lie. This range is shown in Figure 1 by the vertical bars on either side of each data point. If the 'confidence intervals' (denoted by the vertical bars) do not overlap, they are not statistically significant at the 0.5 level.



A new entrepreneurial generation in Scotland? New evidence

In 1993, Scottish Enterprise launched the Business Birth Rate Strategy to address the long-standing problem of Scotland's low rate of business start-up compared with the UK as a whole (see box, p16). The Strategy's objective was to close the gap with the rest of the UK in terms of the number of businesses started, and to achieve this by the end of the year 2000. By late 2000, however, it appeared that new firm starts, as measured by new business bank account openings at the four main clearing banks in Scotland, having risen up to 1997, were decliningⁱ, though this reflects a more general decline in business birthrate throughout the UK.ⁱⁱ

Analysts at Scottish Enterprise and the Scottish Executive concluded that this pattern was structural, being part of normal fluctuations in business start-up activity through the economic cycle. Nevertheless, the effectiveness of the Business Birth Rate Strategy, as it was known, was called into question and an independent review of the Strategy was commissioned in December 2000ⁱⁱⁱ.

What light can the results of GEM2000 cast on the effectiveness of the Business Birth Rate Strategy? Careful analysis of the GEM data suggests that a generational shift in entrepreneurial activity may be occurring in Scotland:

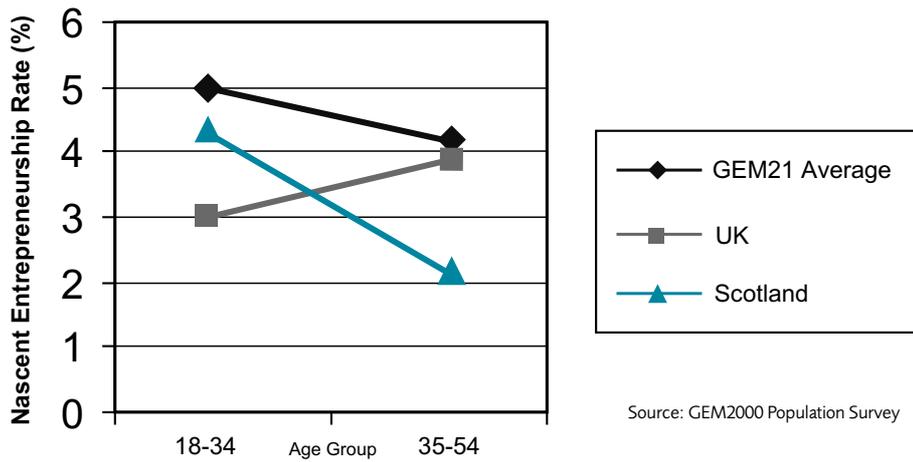
- The distribution of entrepreneurial activity in Scotland in 2000 was more skewed towards young adults (aged under 35) than most GEM

nations, and much more than the UK or Wales.

- Young Scots are significantly more likely than older Scots to agree that in the next six months there will be good opportunities for starting a business in the area where they live. This is not true for either Wales or the UK as a whole.
- Young Scots with post-secondary education are over 3 times as likely to be engaged in entrepreneurial activity than older Scots. The equivalent figure for the UK is less than 2 times.
- The most entrepreneurial Scots are young males with a post secondary vocational education and young females with university education.
- Informal Investment activity among older Scots is significantly lower than among their peers in the UK as a whole, but investment activity by young Scots is not.

Distribution of entrepreneurial activity by age

Figure 4 shows the distribution of nascent entrepreneurial activity by age group among all adults aged 18-34 and 35-54 sampled in the 21 sovereign nations in the GEM2000 survey, the UK, and Scotland. It shows that young Scottish adults in Scotland have close to average nascent entrepreneurial activity, but that older Scots adults have low rates of nascent entrepreneurial activity. Table 1 shows the ratio of nascent entrepreneurial activity among the standardized samples of 18-34 year olds to those aged 35-54. Scotland has the third highest ratio of the 23 nations in the table.



Source: GEM2000 Population Survey

This generation effect is what one would expect to find if the Business Birth Rate Strategy had had an impact. Given the strong effect of culture on entrepreneurshipⁱ, an attempt at culture change in which education played a large part would likely impact most on the young.

Figure 4. Nascent Entrepreneurial Activity among adults by age group.

(Adults trying actively to start a new business per 100 adults, standardised Index)

Nations with ratios greater than 1

Nations with ratios less than 1

Nation	Ratio	Nation	Ratio
Ireland	2.63	Norway	0.98
Finland	2.52	India	0.96
SCOTLAND	2.01	France	0.94
Italy	1.90	Belgium	0.92
USA	1.66	Korea	0.80
Singapore	1.64	UK	0.76
Israel	1.58	Japan	0.17
Canada	1.41	Wales	0.90
Denmark	1.35		
Sweden	1.31		
Australia	1.15		
Brazil	1.14		
Spain	1.10		
Germany	1.09		
Argentina	1.06		

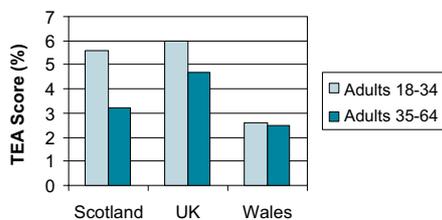
Source: GEM2000 Population Survey

Table 1. Ratio of nascent entrepreneurship rates of 18-34 year olds versus 35-54 year olds among 23 GEM2000 nations.



Figure 5 displays the generation shift using Total Entrepreneurial Activity (TEA) scores. The ratio of Total Entrepreneurial Activity amongst the 18-34 age group to the 35-64 age group in Scotland is 1.8, compared with the UK equivalent figure of 1.3. Results for Wales show no difference. Due to small numbers, these within-nation TEA differences by age group are not statistically significant but they are suggestive of a generational shift in entrepreneurial behaviour in Scotland.

Figure 5. Total Entrepreneurial Activity rates by age group in Scotland, the UK and Wales.



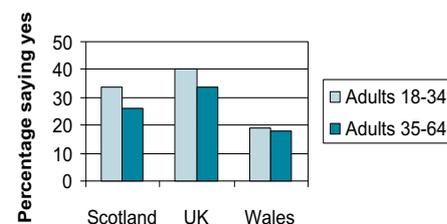
Source: GEM2000 Population Survey

Opportunity Perception

Other evidence from the population sample corroborates the assertion that there is a generational shift in entrepreneurial attitude and behaviour in Scotland. Figure 6 shows that opportunity perception is lower among older Scots, than either younger Scots, or either age group in the UK. This difference is statistically significant. There is no significant difference between younger Scots and either younger or older UK adults.

Figure 6. Perception of opportunity in Scotland, the UK and Wales

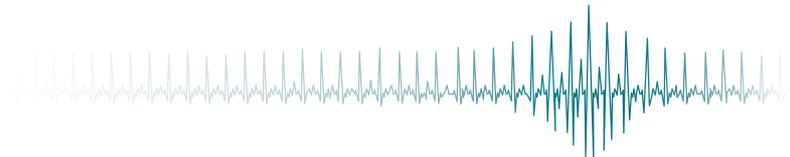
(Percentage agreeing with the statement; "In the next six months there will be good opportunities for starting a business in the area where you live")



Source: GEM2000 Population Survey

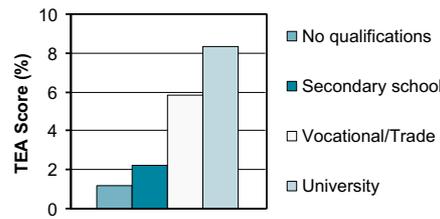
Educational Attainment

The GEM2000 study found that the more extensive the national post-secondary education system, the greater the overall national level of participation in entrepreneurship^{iv}. Therefore, entrepreneurial activity in Scotland is likely to have been positively affected by the increase in participation rates in post-secondary education in Scotland over the last decade. For example, during the seven years of the Business Birth Rate Strategy, the percentage of school leavers entering higher or further education in Scotland increased from 40 to 51 per cent^v. During this time, there have also been important changes in the nature of education in Scotland, making it more "enterprise-friendly". See chapter 5 for a full discussion of this.



Is the apparent generational effect in Scotland simply attributable to increased participation in post secondary education? Certainly, Figure 7 shows that post-secondary education makes a great difference to levels of entrepreneurial activity.

Figure 7. Total Entrepreneurial Activity and Educational Attainment in Scotland



Source: GEM2000 Survey

The proportion of those active in entrepreneurship in the Scottish GEM sample without post secondary education is significantly lower than those with post secondary education. This is important because it has been asserted that "statistical comparisons show that, head for head, fewer university graduates start their own businesses than just about any other sector of the population in the UK^{vi}". This is obviously not true of Scotland in 2000.

Figure 8 suggests that there is a difference between the rate of entrepreneurship of the younger and older age groups who have post secondary education in the Scottish sample. This difference is not suggested in the UK sample (Figure 9).

Figure 8. Total Entrepreneurial Activity in Scotland by age and educational attainment

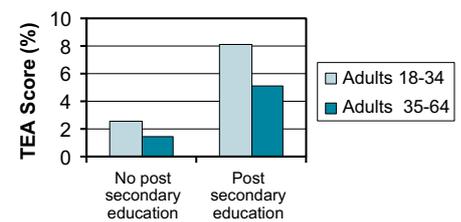


Figure 9. Total Entrepreneurial Activity in UK by age and educational attainment

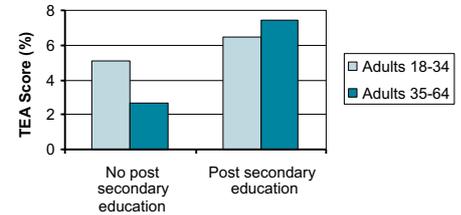
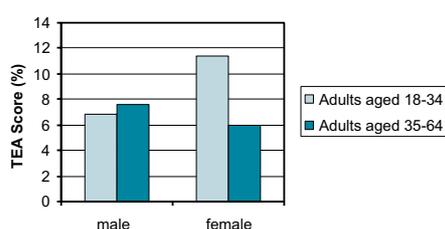


Figure 10 shows that a university education may have had a disproportionate effect on the entrepreneurial activity of young women in Scotland. The typical ratio of male to female participation in entrepreneurial activity for all GEM nations, and in Scotland, is 2:1. This is true for younger working age adults and older working age adults. However, total entrepreneurial activity of young university-educated women in the sample (11.5%) was double that of older graduates. This result should be treated with some caution as the numbers are small and the margin of sampling error correspondingly large. But it does suggest that, in Scotland, a university education appears to boost women's rate of entrepreneurial activity. This is not true, on average, for other GEM nations^{vii}.



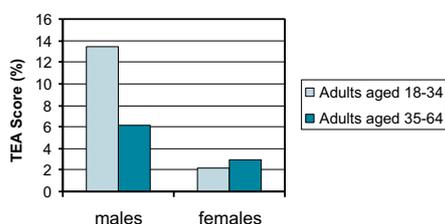
Figure 10 Total Entrepreneurial Activity in Scotland of university graduates by age group and gender.



Source: GEM2000 Population Survey

Adults who have post-school vocational or trade qualifications do not, however, show similar rates of entrepreneurial activity among males and females. Figure 11 illustrates an apparent generational shift for males with post secondary vocational or technical education. The shift is not apparent for females with the same level of educational attainment.

Figure 11. Total Entrepreneurial Activity in Scotland among adults with post-secondary vocational education by age group and gender.



Source: GEM2000 Population Survey

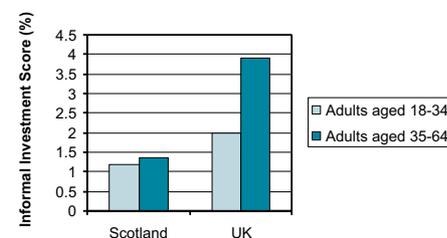
Informal Investment Activity

The pattern of higher entrepreneurial activity among younger Scots than older Scots is mirrored in informal investment activity. Figure 12 shows the proportion of younger and older

working-age Scots who invested in someone else's new business in the past 3 years. Investment by older Scots is the same as among younger Scots, and significantly lower than older adults in the UK sample. One would expect older Scots to invest more, more often, since they are likely to be wealthier. This is not the case (see chapter 6).

Figure 12 Informal Investment Activity in New Businesses in Scotland and UK, by age group

(Percentage of adults who invested in someone else's new business in the past three years, standardized index)



Accounting for the Generation Shift

There can be no doubt that the profile and status of entrepreneurship in Scotland has been lifted as a result of the Business Birth Rate Strategy. As part of the Business Birth Rate Strategy, major initiatives have taken place within the education system in Scotland, to raise the profile of entrepreneurship and enhance enterprise skills through experience of business issues. This has taken several forms and has covered all levels of education in Scotland, from Scottish Enterprise's *P1 to Plc* project in the schools and *Get Into Enterprise* in schools and further education colleges, to the creation of entrepreneurship departments and expansion of entrepreneurship education in universities.

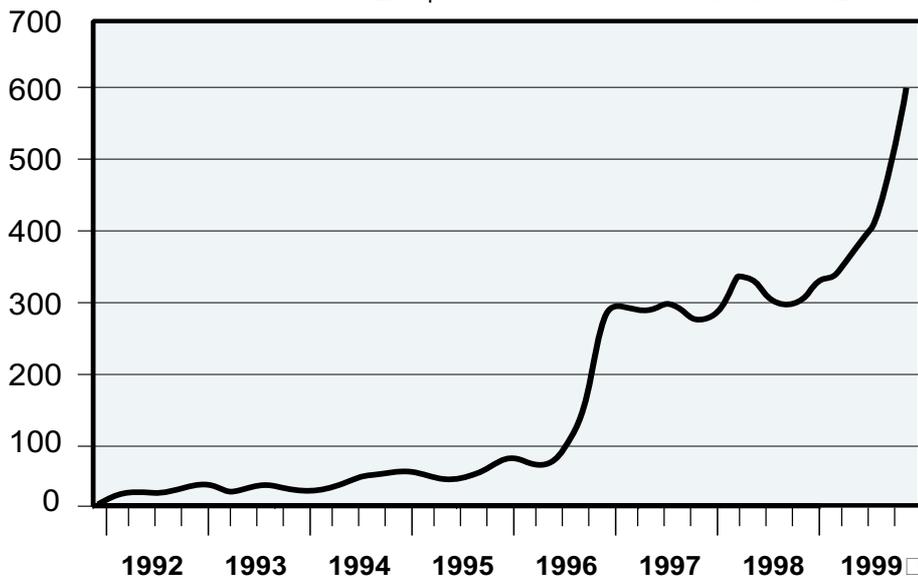


As a result of the increased government and educational interest in entrepreneurship in Scotland, media coverage has increased greatly (see Figure 13), and become more positive in tone, to the extent where positive profiles of entrepreneurs and their contribution to jobs creation and the economy are commonplace in the media today.

Scotland's bias towards entrepreneurial behaviour amongst younger people suggests that the Business Birth Rate Strategy and educational programmes in Scotland are having a positive effect on enterprise culture in Scotland amongst the young, but much less effect on older adults^{viii}. Traditional attitudes towards the economy in Scotland are deeply rooted in industrialism and dependency and thus are not very conducive to entrepreneurship. It is to attitudes and culture – seen by our key informants as the issue of greatest importance for the entrepreneurial sector in Scotland – that we now turn.

The “E-Index”

Mentions of the word “Entrepreneur” in the Scottish Media since 1992



Source articles (every 3 months) containing the words “entrepreneur/s” “entrepreneurial” “entrepreneurship” in the Scotsman, Scotland on Sunday, Herald, Sunday Herald, Scottish daily Record and Sunday Mail.

Figure 13 Mentions in the Scottish press of the word “entrepreneur”

Source: Improving the Business Birth Rate, Inquiry 2000, Scottish Enterprise.



THE BUSINESS BIRTH RATE STRATEGY

- The Scottish Business Birth Rate strategy, a bold attempt to bring new business starts up to UK average levels within ten years was unique in the world. It was launched in 1993, following a thorough research programme and extensive consultation with organisations, companies and individuals throughout Scotland. The Strategy sought to solve the long-recognised problem of Scotland's low rate of new business creation. The Strategy aimed to increase the long-term economic growth of the Scottish economy by:

- *increasing the number of new businesses in Scotland;*
- *increasing the number of new starts that survive; and*
- *increasing the number of new starts that subsequently achieve significant growth*

At the time of the Strategy's publication, this implied a 50% increase in the annual rate of business creation in Scotland - resulting in 25,000 more businesses - by 2000.

For this to happen, the Strategy argued, more people in Scotland had to come to believe that establishing a successful business is within their capabilities and a worthwhile means of achieving wealth, and social and personal fulfilment. To bring this about, Scotland had to provide a more encouraging environment for its would-be entrepreneurs.

To meet its ambitious objectives, the Business Birth Rate Strategy was seen as requiring a society in which there is:

- A widespread belief and acceptance of the importance of new firms to the process of job creation and long-term economic growth.
- Greater commitment to developing 'winners', on the assumption that much can be done to 'make' entrepreneurs - in contrast with the widely-held view that entrepreneurs are 'born, not made'.
- Greater commitment to change within Scottish society, and greater recognition that a wide range of individuals and organisations can contribute positively to the process.

A wide range of initiatives were attempted by many organizations in Scotland, and a new set of support organizations were created, such as the Entrepreneurial Exchange (a networking and learning organisation for established entrepreneurs), CONNECT (a networking organization for technology academics, entrepreneurs and financiers), and LINC (set up to connect private investors (angels) with entrepreneurs searching for investment capital). Many initiatives in enterprise education were begun, within and outside the formal education system. For more details on the Business Birth Rate Strategy, see <http://www.newbusiness.org.uk>

Now similar national strategies are being employed by other nations with low rates of entrepreneurial activity (for example, Finland and Singapore), yet within Scotland the strategy is under review, as new business starts continue to decline for the third year in succession.

ⁱ see <http://www.newbusiness.org.uk>

ⁱⁱ Briggs J, Teasdale P and McVey B. "Explaining the Decline in Business Starts in Scotland 1997-99" Scottish Enterprise/Scottish Executive.

ⁱⁱⁱ Scottish Enterprise Press Release 11 December 2000

^{iv} GEM1999 found that a composite "Social and Cultural Norms" index correlated highly (0.87) with the business start-up rate among the 10 nations in the sample. See the Global Entrepreneurship Monitor 1999 UK Executive Report, page 15.

^v GEM 2000 Executive Report, p.23

^{vi} Destinations of Leavers from Scottish Schools: 1997-98 to 1999-2000. Scottish Executive Statistical Bulletin Edn/B9/2000/4. 19 December 2000.

^{vii} Houston, T. 1995, *Great Scots in Business*, pp. 72, Scottish Enterprise

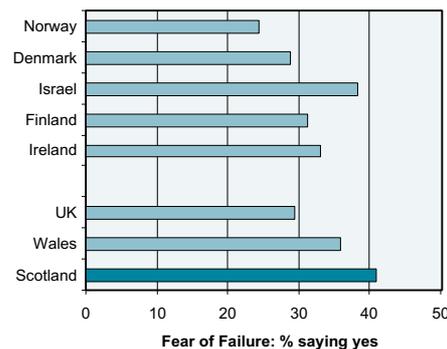
^{viii} GEM 2000 Executive Report, *ibid.*



Attitudes to entrepreneurship in Scotland

Fear of failure can be a major deterrent to business start-up if the culture, institutional as well as social, lays heavy penalties on those who fail. This is a well documented characteristic of the UK¹, but it appears that business failure is even more of a deterrent in Scotland, as illustrated in Figure 14. Figure 14 also contrasts the Scottish "fear of failure rates" captured in the GEM2000 survey with those for other small modern nations. About 10% more of the Scottish population appear to fear failure than either the UK or the average for small modern nations.

Figure 14 Percentage of Adults agreeing with the statement: "Fear of Failure would prevent you from starting a business"



50% of Scottish GEM2000 key informants claimed that fear of failure is the main barrier to business start-up in Scotland. They felt there is a propensity in Scotland for people to not take risks lest they lose everything. They also felt that there is a social stigma attached to failure, and that this is manifested in public criticism of entrepreneurs whose businesses fail. However, they believed

that public criticism is declining in intensity, as the media are currently supportive of entrepreneurship, and this helps shape much public opinion. Key informants believed that institutionalised penalties for business failure, including the UK bankruptcy laws, and the negative attitudes of lenders and potential investors to those who have tried and failed in business in the past are not diminishing however.

Six key informants suggested that it should be recognised within the UK and especially within Scotland that business failure can often lead to better and higher quality business creation in the future for an individual who has the benefit of experience.

Turning from fear of failure to respect for those who try to start a business, we find that respect for those who try is significantly more widespread in Scotland than in the rest of the UK (this is illustrated in Figure 15). This could be connected to the high social cost of failure. As many are deterred by a fear of business failure, so those who try are applauded for their effort and courage. It could also be due to a widespread recognition of the economic benefits of entrepreneurship, something the Business Birth Rate Strategy sought to convey.



Figure 15 Percentage of adults agreeing with the statement "People you know respect those starting a new business"

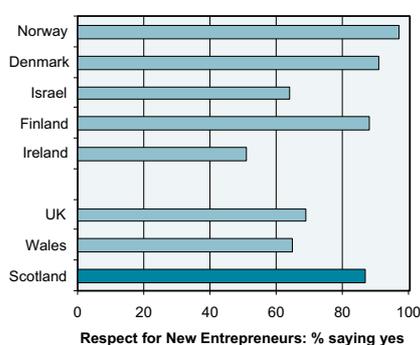
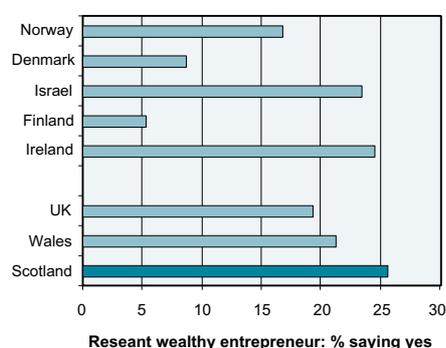


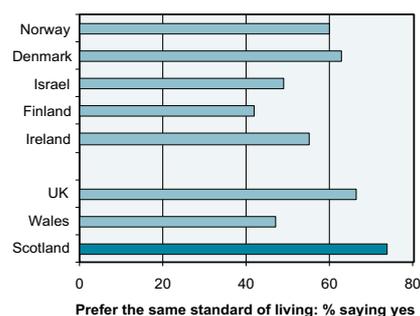
Figure 17 Percentage of adults agreeing with the statement "People you know resent those who make a lot of money from starting a business"



A high proportion of Scots believe that all should have the same standard of living (Figure 16), while a large minority believe that successful entrepreneurs are resented for their wealth (Figure 17). Indeed, 44% of the Scottish key informants also claimed that successful entrepreneurs are resented. This perception of resentment in the community is more common in Scotland than in the rest of the UK, though there is much variety amongst small modern nations.

A relatively high rate of perceived resentment in the community for successful entrepreneurs appears to conflict with evidence which suggests that people are respected for starting a business. One explanation might be that while attempts to start a new business are applauded, success is not. Several key informants quoted the "I kent [knew] his father" opposition to those who create wealth; a sarcastic criticism, rooted in jealousy and inverted snobbery, of those who have shifted from the perceived commonality by becoming successful entrepreneurs. This fits with the traditional values associated with industrial Scotland: a socialist convention and a disassociation from, and distrust of the establishment. Five key informants suggested that the lack of entrepreneurial culture in Scotland and the associated perceived lack of opportunities cause those who would contribute best to an entrepreneurial economy, i.e., the young, high skilled, to leave Scotland to seek opportunity elsewhere.

Figure 16 Percentage of adults agreeing with the statement "Most people you know would prefer that everyone had the same standard of living"





As the Scottish economy modernises, and provided the generational shift in entrepreneurial activity is sustained, this resentment of wealth is likely to diminish.

Networking

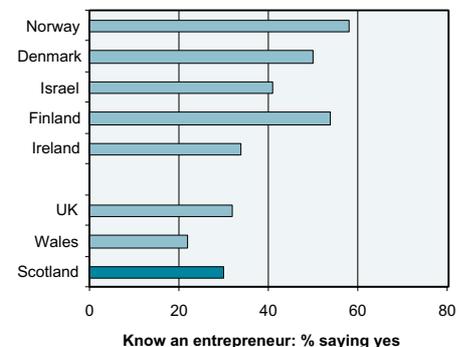
Another area of concern for both the original Scottish Business Birth Rate Strategy and 5 Scottish GEM2000 key informants is that Scots appear to be poor business networkers, and can tend to be parochial in business. Key informants claimed that this parochialism manifests itself in a tendency to restrict trade to localities within Scotland or the UK, and a lack of exploitation of export potential.

Several studies have found that Scots, in comparison to Americans, appear to put a relatively low priority on networkingⁱⁱ. Research on entrepreneurship has shown that "weak ties" (acquaintances) are important providers of information on markets and resources. "Strong ties" (deeper relationships) are also important, especially for accessing resources, but without the information provided by weak ties, prospective entrepreneurs may make suboptimal investment decisionsⁱⁱⁱ. Several key informants claimed that Scots, by tending not to foster weak ties - probably as a result of a lack of confidence and a distrust of the establishment - apply self-imposed restrictions to their potential. They tend to limit their opportunities to learn through peers both locally and internationally, and to grow

through geographically extended trade.

There is some supportive evidence in GEM2000 for this networking hypothesis. Despite increases in the profile of entrepreneurship through the 1990's, Scotland still has relatively few people who claim to personally know a new entrepreneur – fewer even than in small modern nations with lower or similar rates of entrepreneurial activity, as Figure 18 illustrates.

Figure 18 Percentage of people agreeing with the statement: "You know someone personally who started a business in the past 2 years"



Source: GEM2000 Population Survey



Changing the Perceptions

Over a third of key informants stated that, in Scotland, a dependency culture prevails, i.e., people understand the economy as something that employs and supports them, but to which they make no active contribution. While the economic structure may no longer be one that supports this interpretation, this mindset is very persistent. In the population survey, there was little difference between younger and older adults in the way they perceived attitudes to entrepreneurship in their society.

Education and information must be seen as the key to changing these perceptions. Students at all levels should be involved in the development of social and enterprise skills. Education in Scotland used to be proscriptive and authoritarian, creating intelligent and informed people, but with virtually no training in social or enterprise skills development. As one informant from a study conducted in Glasgow in the 1970's put it: "it's a mode of teaching...which stresses silence and the absorption of information rather than the giving out...it's a kind of benevolent paternalism."^{iv}

Apart from changes in teaching methods generally over the last twenty years, targeted measures are being taken in enterprise education, and this was recognized by 7 key respondents. Notable examples include the proposed National Centre for Work and Enterprise's *Schools Enterprise Programme*

which aims to provide every school-child in Scotland with at least three entrepreneurial experiences during their school career; Scottish Enterprise's *Primary 1 to Plc.* and *Get Into Enterprise: an enterprise-teaching resource for use in schools and FE colleges*; and the creation of *the Scottish Institute for Enterprise: a collaboration between five universities which aims to increase the provision of entrepreneurship education to science and engineering students.* *Young Enterprise Scotland* is also being reoriented to entrepreneurship. These measures are starting to have an effect on entrepreneurial activity rates among the younger generation. As today's young adults mature, so should attitudes towards entrepreneurship.

ⁱ See, for example, the GEM 1999 UK Executive Report. London Business School, 1999.

ⁱⁱ Fast Companies Report 2: What do the Entrepreneurs Think. Scottish Enterprise, 1999. Available on <http://www.newbusiness.org.uk> See also Maniukiewicz, C. and Keogh, W. "Encouraging the Entrepreneurial Spirit; What can we learn from the United States? Paper presented at the 23rd ISBA National Small Firms Policy & Research Conference, Aberdeen 2000.

ⁱⁱⁱ Uzzi, B. 1999 'Embeddedness in the making of financial capital: how social relations and networks benefit firms seeking finance' in *American Sociological Review*, Vol. 64, August.

^{iv} Macaulay, R.K.S., 1977, *Language, Social Class and Education*, pp104-105, Edinburgh University Press.



Financing entrepreneurship in Scotland

Our key informants suggested that a long held belief about Scotland is that funding is more difficult to attract than elsewhere in the world due to a general lack of finance available. This is often said to be one of the main reasons why business start-ups traditionally have been lower in Scotland than the UK average. A related explanation is that, with more people in Scotland occupying public sector housing than owning their homes, fewer people have collateral in the form of a fixed asset to set against a loan in Scotland.

39% of Scotland's key informants stated that accessing capital is the real problem in terms of financing entrepreneurship in Scotland. 31% claimed that the financial institutions in Scotland are very risk-averse, and that this is equally true of all sources of finance, including venture capital companies, banks and private investors.

We now consider the state of both private investment and venture capital investment in new firms.

Private Investment

Around 60% of organized "business angel"ⁱⁱ investments in the UK are in businesses at their seed, start-up or early stages, making business angels an important source of investment for new businesses.

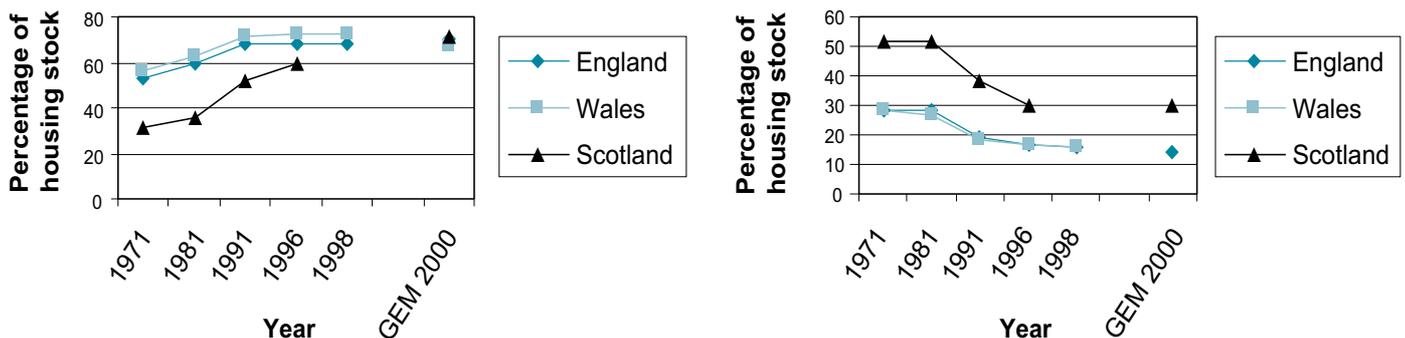
The organised private investment market in Scotland is recognised as world-class in structure and Scotland is said to be a "hot-spot"

The 1993 Business Birth Rate Strategy Reportⁱ claimed that around half the shortfall in the expected business birth rate performance in Scotland between 1978 and 1990 could be accounted for by low rates of home ownership. Figure 19 shows that currently this can no longer be said to be the case as the amount of home ownership in Scotland is no longer any different from that in England and Wales.

Figure 19 Trend in ownership status of housing stock, 1971-2000

(Percentage of owner-occupied housing and local authority-rented housing)

Source: *Scottish Abstract of Statistics, 1971-98, and GEM2000 population survey.*



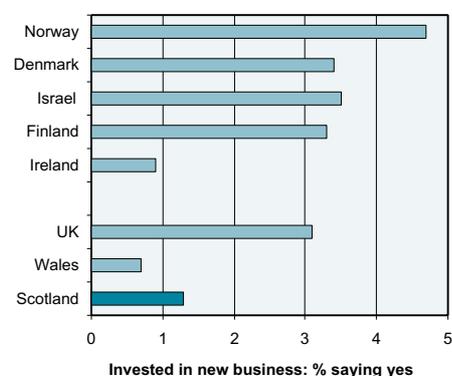


for organized business angel activityⁱⁱⁱ. For example *LINC Scotland*, a Scottish networking agency for informal investors, has been asked to join the board of the European Business Angels Network (EBAN), the European umbrella organisation for angel networks. This is seen as "a mark of LINC's reputation as one of Europe's best...It is also a testament to the energy and increasing prominence of Scotland's angel community"^{iv}.

Both the number and amount of investments channeled through formal business angel networks in 1998/99 (latest available data) was greater than one would expect, given Scotland's share of UK VAT registered businesses, although the average amount invested was slightly under the average of £50,000^v. Around £2 million was invested through these networks in Scotland in 1998/99.

The overall rate of private investment in other people's new businesses in Scotland is, by contrast, significantly lower than in the UK, and also significantly lower than in most other small modern GEM nations. This is shown in Figure 20.

Figure 20 Percentage agreeing with statement: "You have, in the past 3 years, personally provided funds for a new business started by someone else"



Source: GEM2000 Population Survey

Figure 20 suggests that the general private investment market in Scotland is only about half of what it should be, given Scotland's rate of entrepreneurial activity. This is surprising, given the relative strength of organized business angel activity in Scotland.

Not only is the rate of private investment low in Scotland; so is the apparent average amount invested. Less than half of Scottish GEM2000 population survey respondents were prepared to divulge the amount of their latest investment, compared to 80% of the UK sample. The declared average investment amount in Scotland was under £5,000; less than a third of the UK average of £17,500. The comparable amount for Finland was about £6,000^{vi}.



While the average amount invested by individuals in other people's new businesses in Scotland is low, and the frequency of investment is also low, the total amount invested per annum is substantial, at around £84 million^{vii}. This dwarfs the organized investment market. By comparison, venture capital investment in startups and early stage ventures in Scotland in 1999 was only £15 million^{viii}.

The GEM2000 study also collected data on the relationship of an investor to their most recent investee. Figure 21 shows differences in investment patterns between Scotland, the UK, Wales, and the average for the 21 GEM sovereign nations.

In the UK, 51% of investments are to close family, 33% to friends or neighbours, and the balance to work colleagues, other relatives and

strangers. This pattern is very similar to the GEM average. In Scotland, 85% of investments are to close family members, with the rest going to friends and neighbours only.

The rate of investment in close family members was roughly the same in the UK and in Scotland (1.6% of UK respondents; 1.1% of Scots respondents), but the gap widens rapidly with social distance. This supports the notion maintained by several key informants, that Scots are relatively poor networkers (see Chapter 5). They appear to be networked densely into tight social groups and unable or unwilling (or both) to build loose ties to people outside their close social circle. Thus, potential entrepreneurs are reluctant to approach loose ties for resources, while those who have resources to invest regard people they do not know well with suspicion – and do not invest.

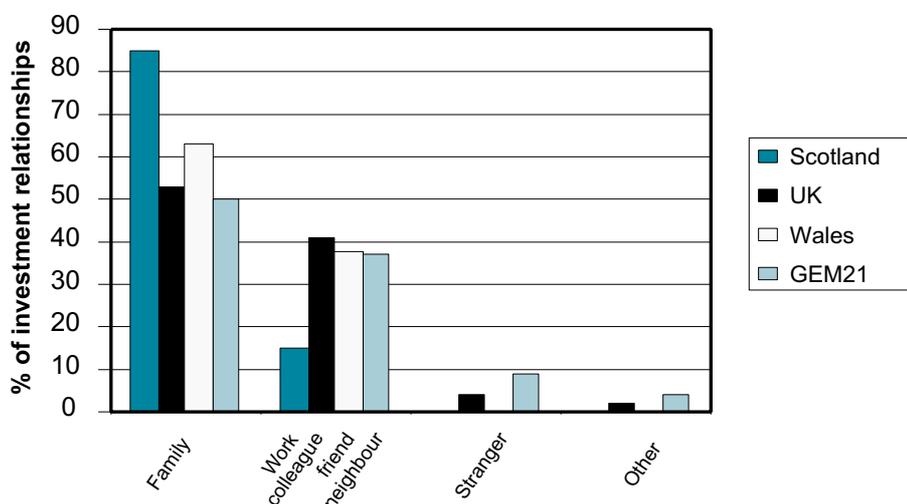


Figure 21 Private investments by investor/investee relationship, as a percentage of all private investments, for Scotland, UK, Wales and the average for the 21 GEM sovereign nations.

Source: GEM2000 Population Survey



The relative success of organized private investments networks, however, suggests that for both investor and investee, the presence of a third party agency or brokering mechanism makes a big difference to information and funds flow within Scotland, easing the access to capital problem.

Venture Capital

The British Venture Capital Association (BVCA) data for 1999^{ix} indicates that formal venture capital investments in Scotland, like private investments, tended to be of lower amounts than the UK average, though Scotland has the highest activity rates of any UK region. The number of firms receiving early-stage venture capital per 1,000 VAT registered companies was 0.28 for Scotland, just ahead of London and the South-East region of the UK.

There is some evidence from the BVCA survey that activity in Scotland is more focused on more established, growing rather than starting firms^x. When the number of early-stage and expansion stage firms are combined, Scotland is even further ahead at 0.78, with the North-East in second place at 0.64 and London and the South-East in third place with 0.60.

The BVCA comments:

"There are many reasons for these regional differences. One theory is that there is a 'tightly-knit' financial community in Scotland, where

venture capitalists are well known by many companies and their advisers and venture capital as a type of finance is well understood, more companies are encouraged to make more use of it." (p22)

"Scotland has long been a strong supporter of the early stage end of the market. Of the 109 companies backed in Scotland in 1999, 30% were early stage, 55% expanding companies and 15% were MBO/MBI's. This is likely to have been due to the concentration of venture capital firms focused on investing in this financing stage in the region, combined with the presence of attractive early stage businesses seeking finance." (p23)

Banks

Banks came in for criticism from 31% of key informants as being more risk averse than elsewhere. Yet when we compare the performance of Scottish with UK banks from the perspective of the small business owner over the 10 year period 1990-2000, there is no evidence of them consistently under-performing compared with English banks according to Forum for Private Business data^{xi}.

Thus we have a paradox in financial investment in new businesses in Scotland: formally organized financial networks are recognized internationally as world class, while informal networks are suboptimal.



One third of key informants claimed that the problem is not associated with the existence of alternative sources of finance in Scotland, but with the confusion of having a plethora of different sources of finance (and support) available, and the bureaucracy associated with each. The Scottish Enterprise Network has recently been reorganized. This should make identifying sources of finance and support easier as it is intended to act as a gateway to a range of services and support.

Four key informants claimed that potential entrepreneurs in Scotland do not equip themselves effectively for investment. They suggest it is the quality of the entrepreneurs and their ideas or management which prohibits investment rather than availability or accessibility of funds. Key informants tended to agree that training entrepreneurs to become 'investment ready' is a role Scottish Enterprise should fulfil.

The most complex explanation for why there is less private investment in Scotland and why it tends to be from strong rather than weak tie sources is to do with culture. Five key informants claimed that Scots are not adept at business networking - a commonly recognised facilitator of business finance and support^{xii}. This hypothesis was discussed in the previous chapter, and it is addressed in more detail in the next chapter: *Maintaining the Momentum*.

ⁱ Scottish Enterprise, 1993, Improving the Business Birth Rate: A strategy for Scotland.

ⁱⁱ Business angels are wealthy private investors, often with business experience who invest capital in other peoples' businesses.

ⁱⁱⁱ Mason, C (1999). Report on Business Angel Investment Activity 1998/99. BVCA, London

^{iv} Financial Times, 7th September 2000

^v Mason, *ibid*, pp.3,16

^{vi} GEM2000 Finnish Executive Report. See <http://www.entreworld.org/GEM2000>

^{vii} Based on an adult population (18 and over) of 3.98 million, and one investment every 3 years by 1.33% of the adult population with an average size of £4783.00.

^{viii} British Venture Capital Association (2000) Report on Investment Activity 1999.

^{ix} British Venture Capital Association (2000) *ibid*.

^x see Hood N. "Public venture capital and economic development: the Scottish experience" in *Venture Capital: An International Journal of Entrepreneurial Finance* Vol 2 No 4 for discussion of the reasons for this.

^{xi} Forum of Private Business (2000). Private Businesses and their Banks 2000. Available at <http://www.fpb.co.uk>

^{xii} For example, see Uzzi (*ibid.*)



Maintaining the momentum: what can be done



For the first time since the launch of the Scottish Business Birth Rate Strategy in 1993, there is suggestive evidence of a generational shift in entrepreneurial activity. Among the 21 GEM sovereign nations, only Ireland and Finland have a higher ratio of young adults to older adults engaged in nascent entrepreneurship. And the Scottish rates of nascent entrepreneurship are higher than in Finland and Ireland – in the case of the latter, significantly so.

There are obvious links between promotion of entrepreneurship and the government's current social inclusion agenda.ⁱ No other GEM nation has had such an intensive and extended period of active promotion of indigenous entrepreneurship in the 1990s as Scotland. This suggests that the promotion has had a positive effect on entrepreneurial activity among young adults, irrespective of shorter term fluctuations in business startup rates with the economic cycle. The Scottish Executive would do well to consider how to maintain this momentum for change in Scottish society.

Many of the factors which retard entrepreneurship in Scotland, are social and cultural. They are also well known to policymakers in Scotlandⁱ, but their persistent nature means that government will have to continue to tackle them head on in policy speeches and through the education and business support system. Additionally, particular attention should be paid where necessary. For example, there does seem to be a need to address the low entrepreneurial activity rate amongst vocationally trained women in Scotland, as well as the attitudes of the older age groups to

entrepreneurship as an economic contributor, as shown throughout this report.

The link between entrepreneurship and economic growth is accepted by policymakers in Scotland, but the necessary relationship between risk and reward still seems to be rejected by the majority of the population. Three-quarters of Scots believe that all should have the same standard of living, while a quarter believe that entrepreneurs who make a lot of money are resented. When compared internationally, these are relatively high figures. The government will have to continue to spell out the benefits to society of its wealth creators, but wealth creators themselves have a responsibility to the society in which they have profited by helping to educate the public on what entrepreneurship is and how it can benefit society.

Culture change is a long term business, but there is a lot to play for:

- If the private investment market in Scotland was on a par with other small modern nations with similar rates of entrepreneurial activity, an extra £85 to £100 million in startup capital would be flowing into new Scottish businesses from ordinary private individuals – far outweighing current venture capital and organized business angel capital flows (see chapter 6).
- Around 10% more of working age Scots are prevented from starting a business by fear of failure than their peers in other small modern nations (see chapter 5). If fear of failure could be reduced by this extra 10%, another 400,000 adults would be added to the list of potential entrepreneurs in Scotland.



- Only 30% of Scots know someone personally who started a business in the past 2 years (chapter 5). Scots tend to invest only in new businesses started by close family members or friends and neighbours (chapter 6). These are symptoms of a society with tight, or “dense” social networks. The implications of this for entrepreneurship are clear. Our respondents were 2_ times as likely to state that fear of failure would prevent them from starting up a business if they did not personally know someone who had started a new business in the past 2 years than if they did know a new entrepreneur. If the social skills of young Scots can be developed so that they can confidently reach beyond their close social circle, they will meet more entrepreneurs and potential resource providers, understand better what it is that entrepreneurs do, and will be more likely to practice entrepreneurship successfully when the time is right for them.

Entrepreneurial activity is retarded by lack of access to finance, fear of failure, and ignorance of the nature and process of entrepreneurship. But the low rates of third party private investment in new businesses, high rates of fear of failure, and low rates of familiarity with entrepreneurs and entrepreneurship we see in Scotland are NOT a consequence of abnormally low rates of entrepreneurial activity. Scotland's rates of entrepreneurial activity are typical for a small modern European nation. Scotland therefore has a tremendous opportunity to build on existing rates of activity. The theme could be *making connections*; both making the connection intellectually between entrepreneurship and economic well-being, and

making connections socially with people outside one's close social circle. This theme was implicit in the Scottish Business Birth Rate enquiry, and behind the setting up of the Entrepreneurial Exchange, LINC, and CONNECT, the spread of enterprise education, and the sponsorship of TV programmes highlighting entrepreneurship. But, clearly, much more remains to be done.

Many of the Scottish Enterprise initiatives launched as part of its business birth rate strategy are now institutionalised – such as entrepreneurship education in universities, and the various networking organisations. What is needed now is more and deeper provision within these institutions, and an outreach to the majority who remain unconnected with entrepreneurs and entrepreneurship. The *Schools Enterprise Programme* is a prime example of what should be done next. It takes a successful experiment – developed and tested in Scotland – in enterprise education in schools to the next level. With funding from successful entrepreneurs, matched by the Government, it aims to provide every schoolchild with at least 3 entrepreneurial experiences during their school career. This will boost both strands of the *making connections* concept: generate understanding of the role of entrepreneurship in economic life, and give children ability in communication, negotiation, and networking; skills which the Scottish education system, until recently, gave children little opportunity to develop.

ⁱ See <http://www.scottish.parliament.uk>

ⁱⁱ See, for example, *The Scottish Business Birth Rate Inquiry 2000* Scottish Enterprise



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