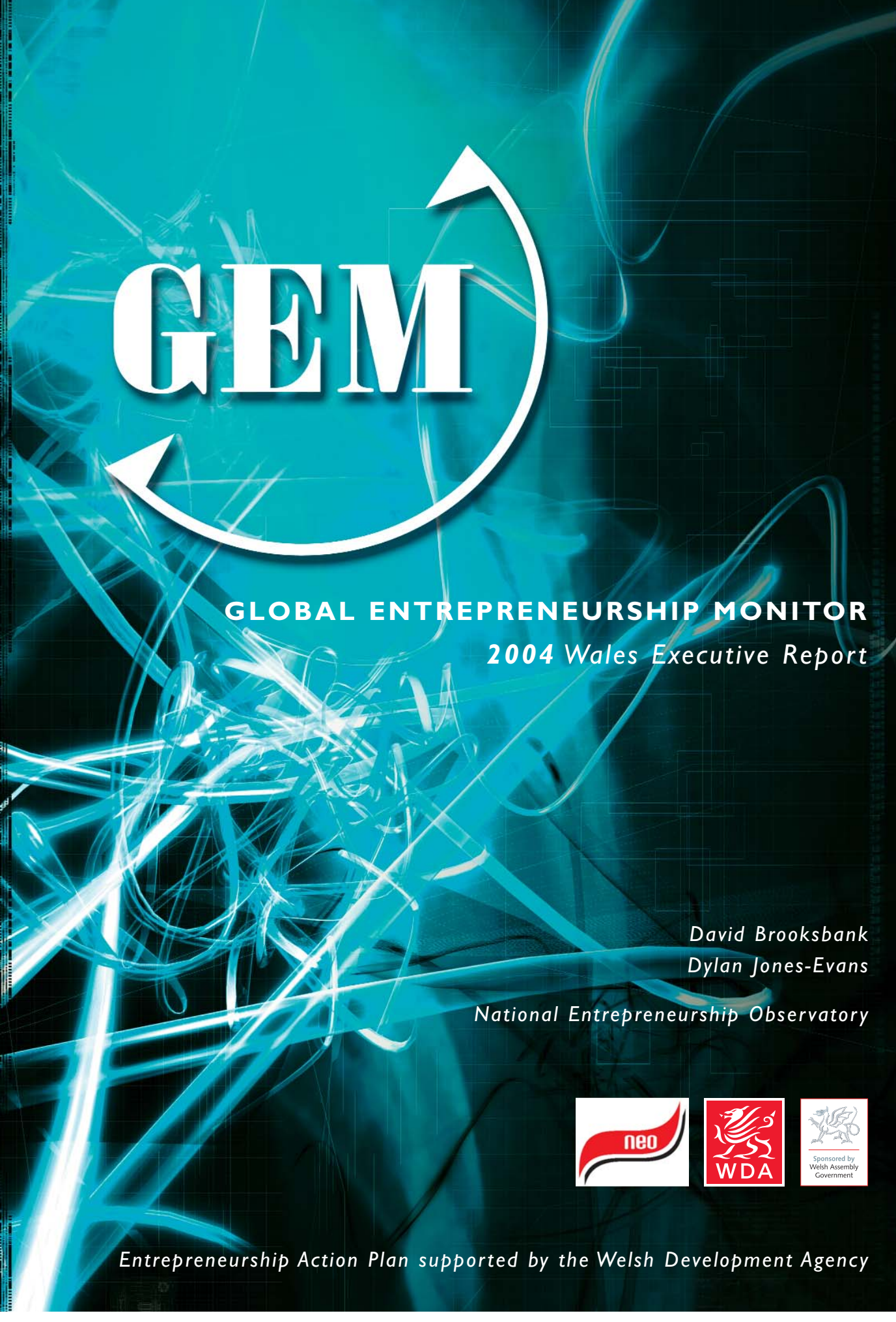

GLOBAL ENTREPRENEURSHIP MONITOR

2004 Wales Executive Report

David Brooksbank
Dylan Jones-Evans

National Entrepreneurship Observatory

neo

WDA

Sponsored by Welsh Assembly Government

Entrepreneurship Action Plan supported by the Welsh Development Agency

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Professor David Brooksbank

Professor Dylan Jones-Evans

March 2005

EXECUTIVE SUMMARY

INTRODUCTION TO GEM

- This is the sixth annual GEM cross-national assessment of entrepreneurial activity and the project has expanded from 10 countries in 1999 to 35 in 2004. The 2004 study represents a total labour force of 566 million, with GEM estimating that 73 million adults are entrepreneurially active. Total entrepreneurial activity (TEA) varied from a low of 1.5 per cent to a high of 40 per cent of working age adults, and the average level of entrepreneurial activity was 9.3 per cent (or one adult in eleven).

- The 2004 GEM study suggests the existence of a U-shaped relationship between entrepreneurial activity and per capita gross domestic product (GDP). The study demonstrates that entrepreneurial activity declines as countries attain higher national income and reaches its lowest point at about £16,000 of GDP per head, which is just below the UK level (GDP per head in Wales is currently around £12,000). Beyond that level of GDP, entrepreneurial activity begins rising slowly and steadily as per capita GDP continues to rise. This observation implies that TEA rates vary according to the level of per capita income and therefore policies must be appropriate to the average income level pertinent to the specific economy. In contrast, inappropriate policies with regard to entrepreneurship may adversely affect the level of economic growth within the country.

- For the last five years, the Global Entrepreneurship Monitor has been sponsored by the Welsh Development Agency and undertaken by a research team consisting of Professor David Brooksbank (University of Glamorgan) and Professor Dylan Jones-Evans (University of Wales Bangor/NEWI). In recognition of the importance of research in this area, they have established the **National Entrepreneurship Observatory for Wales (NEO)**. As a joint project between the Business School at the University of Glamorgan and the Centre for Advanced Studies in the Social Sciences at Cardiff University, this new body will undertake regional, national and international research projects in the field of entrepreneurship and small business development.

Entrepreneurial Activity in Wales

- The 2004 TEA index for Wales was measured at 5.5 per cent, a decrease from the 6.8 per cent recorded in 2003, but well above the 3.9 per cent in 2002. This places Wales nominally in the top twenty most entrepreneurial nations in the World, ahead of a number of major European nations including Finland (4.4 per cent), Italy (4.3 per cent), and Sweden (3.7 per cent) but behind other small nations such as New Zealand (14.7 per cent) and Iceland (13.7 per cent).

- Overall, the average level of entrepreneurial activity among the thirty five nations in GEM 2004 was 9.3 per cent, although this does vary tremendously from 40 per cent of adults in Peru (one in two people) to 1.5 per cent of adults in Japan (one person in seventy). The 2004 TEA for the UK was 6.3 per cent, a slight, but statistically insignificant, decrease on 2003.

- Wales has participated in the GEM study for the past five years. In 2000, the Welsh TEA was at 28 per cent of the average for this GEM-18 group whilst in 2005, this had risen to 94 per cent. Since 2000, only three other nations – Argentina, France and Singapore – have shown an overall increase in their entrepreneurial activity rate. However, none of these have shown an improvement as high as Wales, with total entrepreneurial activity more than doubling over the five year period from 2.6 per cent in 2000 to 5.5 per cent in 2004.

- Wales has a higher TEA than the two other devolved regions of Scotland and Northern Ireland. Only four regions of the UK – Yorkshire and Humberside, North East, East of England and East Midlands – have experienced an increase in TEA between 2003 and 2004. In contrast, TEA in the UK has remained very similar to the 2003 level at 6.3 per cent of the adult population of working age. This means that Wales is currently ranked 6th out of the 12 UK regions.

- Whilst our overall performance may have declined, the relative performance has improved considerably and the gap between the lowest ranked region in the UK – the North West – and Wales has also closed. This suggests that regional differences in entrepreneurial activity are slowly being eroded.

- The proportion of the working age adult population in Wales who were actively participating in the process of start-up in 2004 was 3.2 per cent, a slight decrease on last year's measure of 3.6 per cent although the difference is not statistically significant. This means one in thirty people in Wales were involved in starting a new business in 2004, or approximately 57,120 working age adults.

- In 2004, Wales had a new firm prevalence rate of 2.5 per cent of the adult population engaged in running firms less than 42 months old. This is a decline of 25 per cent since 2003 and is only slightly above the rate of 2.0 per cent measured in 2002. This ranks Wales 19th out of the 35 GEM nations.

- The study shows that 4.6 per cent of the Welsh population have set up a business to take advantage of opportunities that are available in the marketplace (or approximately 82,110 adults). This places Wales at slightly below the average opportunity TEA across all countries in the GEM study of 6.2 per cent.

- In terms of necessity entrepreneurship Wales had a necessity TEA of 0.8 per cent, which is a third of the average of 2.3 per cent across all countries in the GEM 2004 study. This suggests that only around one in 125 of the labour force in Wales actually participates in entrepreneurship because of the lack of better alternatives and reflects the situation in most of the developed nations of the World.

- In Wales in 2004, 6.5 per cent of the population were involved in start-up activities either independently or as part of their normal jobs. 1.7 per cent of the Welsh population had also closed a business during that time creating a churn rate of 8.1 per cent. This compares to a UK rate of 8.6 per cent and suggests that the environment for 'doing business' in Wales is no different to the UK average. The net effect on stock in Wales is 4.8 per cent which is slightly higher than the UK average because the rate of closures is marginally lower in Wales.

Entrepreneurial Characteristics

- In 2004, female TEA in Wales was measured at 4.5 per cent, which represents a slight increase on 2003. In contrast, male TEA has declined from 9.1 per cent in 2003 to 6.5 per cent in 2004. Therefore, with the female TEA now at three quarters that of the male TEA, Wales has one of the best gender balances in entrepreneurship in the whole World.

- In contrast to many of the UK regions, Wales follows the general global pattern, with 25-34 year olds being the most entrepreneurial group with a TEA of 8.0 per cent. Not surprisingly, the two age groups in Wales with the lowest entrepreneurial activity are 18-24 year olds (with a TEA of 4.5 per cent) and those aged 55 and over (with a TEA of 1.8 per cent).

- In Wales, the most entrepreneurially active group of adults is those with a largely vocational educational background, with 7.6 per cent involved in enterprise activities. This contrasts with the situation within the UK where entrepreneurs are more likely to have followed a university education both at undergraduate (8.2 per cent) and postgraduate (7.8 per cent) levels.

- In Wales, entrepreneurial activity increases as income increases, with those with an annual salary in excess of £50,000 having the highest participation rates in entrepreneurial activity (8.0 per cent) which also reflects the UK situation.

- The impact of immigrants on Welsh entrepreneurial activity is relatively higher than those born in Wales, with the major contribution being made by those born in other parts of the UK (with a TEA of 9.6 per cent) as opposed to Welsh born (3.7 per cent). The impact of immigrants born outside the UK is approximately the same as the GEM average for Wales, although their impact on entrepreneurial activity at a UK level is almost 40 per cent higher than for Wales.

- The rate of entrepreneurial activity for Welsh born entrepreneurs on the rest of the UK is far higher outside the land of their birth than for those remaining in Wales. The study indicates that 6.1 per cent of the Welsh-born now living in England are entrepreneurially active as a group, 165 per cent higher than for those born and still living in Wales.

- By far the greatest proportion of those starting new firms do so from a position of employment. This emphasises the 'opportunity' based nature of much of the activity in Wales and the UK, where individuals may be exploiting their experiences when starting new firms.

- In terms of SIC sector, there is more entrepreneurial activity in the retail sector in Wales and less in business services than in the UK. This could be worrying for the development of the economy given that the GEM Global report suggests that activity in the business services sector increases as national income rises. For example, in low-income countries, the business service sector accounts for just 10 per cent of new firms, while in the high-income group the figure is almost three times higher at 28 per cent.

- Around 80 per cent of the start-ups and new firms in Wales have no degree of exports. Wales is quite similar to the other regions of the UK in terms of owner-managers, but falls behind many other regions in terms of the export orientation of its start-up companies. This is an area where more emphasis may be needed in the support given to certain types of start-ups, perhaps boosting the knowledge of exporting know-how within the range of training and advice services in Wales. Clearly, however, the degree to which 'exporting' per se is possible is largely determined by both the nature of start-up in a particular sector and the ambitions of the entrepreneur. Creating more new and growing businesses that see their market as more than their immediate locality must be a primary objective of business support services.

Entrepreneurial Attitudes

- In 2004 in Wales, 7.2 per cent for of people expect to start a business in the next three years, up from 5.5 per cent in 2003. This compares to the highest ranked region of London, where 15.9 per cent expect to start a business in the next three years, with the lowest region in 2004 being Northern Ireland with 6.1 per cent. All regions except the East Midlands and East of England show a rise between 2003 and 2004.

- In general, entrepreneurial attitudes in Wales do not suggest any great difference from the UK averages. Fear of failure is higher in Wales, but the difference is not statistically significant.

- People in Wales are around 5 percentage points less likely to know an entrepreneur than their counterparts in London and the East of England.

- Wales ranks first of all the UK regions in terms of good media coverage of entrepreneurship which is perhaps testament to the many funded campaigns of the Entrepreneurship Action Plan and the associated publicity.

- By far the most important barrier was that of fear of debt. In Wales 48 per cent of respondents identified this factor compared to 50 per cent in the UK as a whole. The second biggest barrier in Wales is lack of interest or enthusiasm, with 17 per cent of respondents mentioning this factor. This is followed by lack of skills, not having an idea for a business and the amount of time or work involved.

- The most common motivations for starting a business was that of making money, with 50 per cent of Welsh respondents quoting this compared to 47 per cent in the UK as a whole. The next most popular factors were those of independence and the challenge of doing something new. 'Being own boss' was a primary motivating factor for 40 per cent of the interviewees in Wales.

Access to Finance

- The largest source of start-up finance in Wales is a bank overdraft, followed by friends and family and unsecured bank loans. This reflects the pattern for the rest of the UK and data from other studies. There is a greater reliance within Wales on bank overdrafts than for similar start-ups within the rest of the UK (34.5 per cent vs 28.4 per cent). There are also more start-ups who are securing the finance for their businesses against property through mortgages.

- 12.8 per cent of new starts in Wales access grants from the public sector as compared to only 8.4 per cent for the UK. There was a relatively low number of equity and individual investments within new business in Wales as compared to the rest of the UK.

- The main reasons, both in Wales and the UK, for entrepreneurs failing in accessing finance for their business were the nature of the business, cost of finance to high and business being too small. The fear of debt was rated as a higher factor in Wales than for the rest of the UK. There was also a greater unwillingness to share ownership of the business.

- 62 per cent of the Welsh population would not start a business without external funds (as compared to 60 per cent in the UK) and demonstrates the importance of access to adequate and suitable finance as a key factor in encouraging a more entrepreneurial economy. A higher proportion of women than men would perceive access to external finance as a barrier to establishing a new business.

- Wales had the highest level of 'business angel' activity of any region of the UK, with 1.5 per cent of the population investing in other new ventures (or approximately 34,000 adults). The lowest level of angel activity was to be found in the North West of England (which also has the lowest TEA for 2004). The amount invested per business by informal investors in Wales is £3,440 per firm as compared to the median investment for the UK of £10,000.

Regional Differences in Entrepreneurship within Wales

- The Mid-Wales region has, at 6.8 per cent, a higher TEA region in 2004 than the UK average. It is followed by North Wales (6.3 per cent) and South West Wales (5.0 per cent). The economic region with the lowest TEA rate for entrepreneurial activity in Wales is South East Wales.

- The relatively high levels of actual new business activity in the Mid Wales sub-region are associated with very positive attitudes towards entrepreneurship. Individuals here are much more likely to report that they have the requisite knowledge and skills to start a business and regard entrepreneurs as having a high status in society and that setting up your own business is a good career choice.

CHAPTER 1: INTRODUCTION TO GEM

1.1 The Global Entrepreneurship Monitor Project

Initiated in 1997 as a joint initiative between Babson College and London Business School, the Global Entrepreneurship Monitor (GEM) describes and analyses entrepreneurial activity across a large and growing range of nations. Through producing internationally comparable data on the "elusive concept of entrepreneurship", the GEM study is unique as the only longitudinal study of entrepreneurship undertaken throughout the major nations of the World.

Since its inception, the aim of the GEM study has been to answer three fundamental questions:

- Does the level of entrepreneurial activity vary between countries (and regions within countries) and, if so, by how much?
- Does the level of entrepreneurial activity affect the national or regional rate of economic growth?
- What makes a country (or region) entrepreneurial?

Building on the data gathered in the study, the GEM conceptual model continues to build a strong argument for a link between the entrepreneurial activity within the economy and national economic growth. It is presented in Appendix B.

This is the sixth annual GEM cross-national assessment of entrepreneurial activity and the project has expanded from 10 countries in 1999 to 34 in 2004 (the current list of participating teams is shown in Appendix C). The countries included in the 2004 assessment are:

- Asia and Oceania – Australia, Hong Kong, Japan, New Zealand, and Singapore
- Africa and the Middle East – Israel, Jordan, South Africa, and Uganda
- Europe – Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, United Kingdom (including Wales)
- North America – Canada and the United States
- South America – Argentina, Brazil, Ecuador, and Peru

Data for the GEM research study was gathered from three main sources:

- A survey of the adult population
- In-depth interviews with experts on entrepreneurship
- A selection of economic and labour market data from a variety of sources

1.2 The GEM Global results for 2004

Summary results of the global GEM 2004 study were published in January 2005 and the findings can be summarised as follows:

- **Entrepreneurship continues to be a major global phenomenon** – The GEM 2004 study indicates that a large number of people continue to be engaged in entrepreneurial endeavours around the globe. Based on this year's sample of 34 countries (plus Wales) representing a total labour force of 566 million, GEM estimates that 73 million adults are entrepreneurially active. i.e. either starting a new business or managing a young business of which they are also an owner. Total Entrepreneurial Activity (TEA) varied from a low of 1.5 per cent to a high of 40 per cent of working age adults, and the average level of entrepreneurial activity was 9.3 per cent (or one adult in eleven). The GEM study also shows that entrepreneurial activity varies significantly by geographic region, type of business and entrepreneurial motivation.

- **The influence of macroeconomic conditions on entrepreneurial activity** – The aggregate level of entrepreneurial activity appears to reflect general macroeconomic conditions as well as various cultural, social, and institutional factors. In the last six years, the ranking order of GEM countries has not varied significantly, which suggests that the level of aggregate entrepreneurial activity may be a national structural characteristic. If this is the case, macroeconomic fluctuations are likely to generate changes in the level of entrepreneurial activity in a country, but such changes are short-term and each country will tend to gravitate toward a more enduring trend of entrepreneurial activity. This means that immediate policy interventions may result in transitory results, but have no long-term effects. This emphasises the importance of having entrepreneurship policies that go beyond any political cycle.

- **Entrepreneurial policies have different effects in different countries** – The results from the 2004 Global GEM study indicate that effective entrepreneurship policy must be adapted to prevailing national circumstances as "one size does not fit all." In particular, there is a danger in simply adopting initiatives from other nations, as the evidence seems to suggest that policies that succeed in one country may not necessarily work in others. However, those countries falling roughly within the same national income groups can certainly learn from one another, taking into account their particular circumstances and the need to tailor adopted policies that have succeeded in other countries to fit their own national conditions.

- **Increasing evidence of relationship between GDP and entrepreneurial activity** – The 2004 GEM study suggests the existence of a U-shaped relationship between entrepreneurial activity and per capita gross domestic product (GDP). The study demonstrates that entrepreneurial activity declines as countries attain higher national income and reaches its lowest point at about £16,000 of GDP per head, which is just below the UK level (GDP per head in Wales is currently around £12,000). Beyond that level of GDP, entrepreneurial activity begins rising slowly and steadily as per capita GDP continues to rise. This observation implies that TEA rates vary according to the level of per capita income and therefore policies must be appropriate to the average income level pertinent to the specific economy. In contrast, inappropriate policies with regard to entrepreneurship may adversely affect the level of economic growth within the country.

- **Entrepreneurship and innovation must be synergized within high-income countries** – For high-income countries, the goal is to develop and sustain higher rates of innovation and to achieve this, key aspects of the entrepreneurial framework conditions in the GEM Conceptual Model must be strong. Despite this, the 2004 study finds considerable variance in this area across the high-income nations and suggests that some nations have a considerable way to go in strengthening key entrepreneurial conditions. In particular, entrepreneurial economies need to strengthen technology transfer, make early stage funding available and support entrepreneurial activity at the national, corporate, and university level. i.e. they need to create a mindset of creativity and innovation. Whilst it is accepted that not all entrepreneurial activity in this group of countries will be innovative and neither will all innovation take place within entrepreneurial firms, there should, nevertheless, be a focus on developing a highly innovative entrepreneurial sector and on supporting high value-added new companies that have the potential to grow and to develop internationally.

- **Increased role for higher education in developing entrepreneurship in high income countries** – In high-income economies, the higher education system needs to play a more central role in research and development, technology commercialisation and scientific education.

- **Improving commercial skills amongst high growth technical entrepreneurs** – Where new ventures are created as a result of technology transfer, the entrepreneur often has well developed technical skills but very little experience of venturing and the business world. The challenge for policy-makers is therefore to make the necessary commercial skills available to the new venture either through training for entrepreneur or through bringing in appropriate business expertise as part of the venture team.

Since 2000, the GEM Wales team has undertaken a detailed analysis of the exact composition of those individuals involved in total entrepreneurial activity within Wales, comparing the developments in this nation with those in other countries.

This year, this report will compare the development of entrepreneurial activity not only with the other 34 countries taking part in the study but also with the different regions of the UK. This is because data generated through the UK GEM team enables a detailed comparison to be undertaken between the twelve regions of the United Kingdom. As a result, Wales can be placed in the context of a national entrepreneurial and economic framework as well as comparing its performance with a range of nations globally. A more detailed analysis of the regional differences within Wales itself according to different economic areas will also be presented in this report.

The GEM 2004 Executive Report, which outlines the scope of entrepreneurial activity across the GEM participating countries, is available from www.gemconsortium.org. As mentioned above, the GEM conceptual model is outlined in detail in this report in Appendix B.

1.3 Measurement of Entrepreneurship in Wales

Whilst this report focuses on the entrepreneurial activity taking place in Wales in 2004, it must be remembered that it forms part of a major global study encompassing 784 million people in 34 other countries. In the fifth year of Wales's participation in the GEM project, we can compare some of the longitudinal trends not only with other nations around the world, but also within the UK itself. For the first time, we are also able to examine the different entrepreneurial trends within various economic areas of Wales and these are analysed in greater detail later within this report.

While the original focus of the overall GEM research programme remains focused on cross-national comparisons in entrepreneurial activity, the current global study has begun to examine entrepreneurship by different economic conditions within nations and determining whether different types of entrepreneurship occurs within differing types of economies. This is discussed in detail within this year's global report. However, this does raise the question of whether there need to be different approaches to entrepreneurship within the Welsh economy itself. Whilst the current sample size is too small to examine this in any real detail, a much expanded study that will take place in 2005 may help to answer this question.

For the last six years, the primary output of GEM has been a comparable measure of entrepreneurial activity. This is not only measured across countries each year – allowing a ranking of nations to be established – but also across time – allowing individual countries to chart their progress against a reliable benchmark. Whilst there can be different debates between academics and policy-makers about the meaning of entrepreneurship, the participants within the GEM project have one clear definition. For the purposes of the study, GEM defines entrepreneurship quite narrowly as:

"Any attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business by an individual, teams of individuals, or established businesses."

This means that we are considering people who are either in the process of start-up or who have actually recently started a new firm.

In examining this phenomenon, GEM constructs measures of four areas of entrepreneurial activity.

The first is the level of start-up activity – defined as the proportion of the adult population aged 18-64yrs who are actively participating in the process of start-up. We call these individuals **nascent entrepreneurs** and the proportion of the population engaged in this activity we label as the nascent entrepreneurship prevalence rate. The second area is that of **new firms** or 'baby businesses.' Here we measure the proportion of the adult population that is currently active in running a new business – the new firms prevalence rate – and define new as businesses that have been running for less than 42 months.

By combining these two measures (nascent and new firm entrepreneurship), we can define the third measure, which constitutes the main output index of this research, namely the Total Entrepreneurial Activity (TEA) rate. Care is taken when compiling this measure not to double-count individuals who may be both nascent and new firm entrepreneurs and for this reason the TEA index will not always equal the exact sum of the other two measures.

Finally, we examine the proportion of individuals who can be classified as 'business angels.' In other words, adults who have provided funding for start-ups, whether that be for family, friends or complete strangers. This gives us a feel for the 'informal' venture capital market that exists in Wales, since a high level of activity has often been linked with successful and dynamic economies with high levels of entrepreneurial activity.

Once again for GEM 2004, we decompose the primary motivations behind an individual's decision to engage in entrepreneurial activity. In particular we examine measures that highlight whether the activity was based on 'opportunity' or was born of 'necessity'. The **'Opportunity Entrepreneurship'** prevalence rate is calculated as the proportion of respondents who are classified as nascent entrepreneurs and indicated that they were attempting to start the new business in order to pursue a new business opportunity. The **'Necessity Entrepreneurship'** prevalence rate is the proportion of nascent entrepreneurs who responded that they were attempting to establish the new firm because there were no better choices of work.

The future of GEM Wales

For the last five years, the Global Entrepreneurship Monitor has been sponsored by the Welsh Development Agency and undertaken by a research team consisting of Professor David Brooksbank (University of Glamorgan) and Professor Dylan Jones-Evans (University of Wales Bangor/NEWI). The research undertaken has been based on the standard adult population survey required for inclusion in the GEM Global survey, namely 2000 adults. Whilst this has allowed the development of Wales to be benchmarked against other nations, it has not allowed a detailed sub-regional analysis to be undertaken or an in-depth study of key factors related to entrepreneurial activity.

To address these issues and to develop a more complete model of entrepreneurial activity in Wales, the **National Entrepreneurship Observatory for Wales (NEO)** has been established by Professors David Brooksbank and Dylan Jones-Evans. As a joint project between the Business School at the University of Glamorgan and the Centre for Advanced Studies at Cardiff University, this new body will undertake regional, national and international research projects in the field of entrepreneurship and small business development.

The first major project to be developed by NEO is an expanded £1.7 million GEM Wales project, funded by Objective 1 and 3 European Structural Funding and through financial support from both partner academic institutions and the Welsh Development Agency. This is the largest single grant awarded in the UK for a research project in entrepreneurship.

The project, to run initially for three years from 2005-2008, will extend the adult population survey to a minimum of 8,000 respondents and will employ six new researchers to examine key aspects of the GEM framework model and different types of entrepreneurial activity. It will help to inform policy and practice within Wales and support the development of the Entrepreneurship Action Plan and other key strategies that impact on the Welsh economy.

CHAPTER 2: ECONOMIC AND POLICY OVERVIEW 2004

The publication of the 2004 GEM report comes at a time when Wales has announced the allocation of £1billion under the current round of EU structural funding and is looking to the future in terms of business support provision when such funding will not be so readily available. The Entrepreneurship Action Plan (EAP) has received considerable support from the Objective 1 funds available to the poorest counties in Wales and has undoubtedly had a significant impact on the development of a more entrepreneurial culture and helped to increase the number of entrepreneurs who are supported in starting a venture. The GEM Global report emphasises that undertaking a step-change in enterprise culture requires a long-term commitment by government and it is crucial that the good work begun by the EAP is continued regardless of the availability of European funds.

Another important policy issue was the announcement by the First Minister, Rhodri Morgan AM, that the major quangos (Welsh Development Agency, ELWa and the Wales Tourist Board) will all be merged into the Assembly Government from April 2006. This has sent a shockwave through the business support community and many commentators are questioning what the longer term impact of that decision will be on the Welsh economy, especially with regard to entrepreneurship and new business development. A broad picture of the economy illustrates the profound nature of the economic development challenges that still lie ahead and it will be interesting to observe how, if at all, the entrepreneurship development policies and programmes change under that new structure.

One of the key objectives of the GEM study is to investigate the relationship between national prosperity and entrepreneurial activity. The Welsh Assembly Government (WAG) has not only set ambitious targets for growth in prosperity (as measured by Gross Value Added per head) – 90 per cent of the UK average by 2010 – but has also committed significant funding to the development of entrepreneurship as a key component of economic policy to achieve this. In the last report on its Winning Wales strategy[1], the Government reported that it had:

- Implemented the Entrepreneurship Action Plan and continued, through Potentia, to assist people to start new businesses (during 2003-04 Potentia created 910 new business starts).
- Further developed the Knowledge Exploitation Fund and undertaken a review of the programme with a view to better integration with Centres of Excellence and Know How Wales Progress (in the period 2003-2004, 59 entrepreneurship scholarships awarded, 1,483 students trained as entrepreneurs, 25 lecturers trained in innovation and entrepreneurship skills, and 35 entrepreneurship and innovation strategies completed for 2003).
- Worked with partners to implement proposals for a new Enterprise Support Scheme and continued to achieve success with the Assembly Investment Grant (525 offers in 2003-2004 with a total value of £16.25 million which is expected to lever in investment of £43.35 million and create 1,280 new jobs).
- Ensured that Welsh businesses take maximum advantage of the funds which are accessible through Finance Wales, which has directly invested over £6.3 million in 146 companies in 2003-2004.

However, it is clear that any rise in entrepreneurial activity will take time to impact on the prosperity of a nation or a region such as Wales. For example, the latest GVA per head in Wales (in 2003) was £12,600 or 79.0 per cent of the UK average. Whilst this is its highest level relative to the UK average for 5 years, the GVA per head for Wales remains the lowest amongst the devolved countries and English regions. Having declined during the 1990s, this proportion has remained fairly stable between 78 and 79 per cent since 1999. Given the increasing evidence in the GEM Global research on the relationship between growth in GVA and entrepreneurship, it will be of interest to policy-makers to measure how the increase in entrepreneurial activity within Wales since 2000 begins to have an eventual impact in the wealth of the nation. Within Wales, there are even larger differences in prosperity. For example, the NUTS2[2] estimates for 2002 show GVA per head in East Wales and West Wales and the Valleys at 101 per cent and 65 per cent of the UK average respectively. Again, this shows the importance of developing the Entrepreneurship Action Plan as an instrument for improving levels of prosperity within the more disadvantaged communities within Wales.

[1] Welsh Assembly Government (2004) A Winning Wales Annual Report. 2003 – 2004, WAG, Cardiff
[2] See chapter 7 for an explanation of the geographical regions within Wales

In terms of employment, Wales has an excellent record during the last five years in creating new jobs within the economy. The latest Labour Force Survey (LFS) data for Wales[3] indicates that 1.34 million people were employed in Sept-Nov 2004. This is an increase of 102,000 since 2001. Whilst the number of self-employed has increased from 152,000 in 2001 to 160,000 in 2004, the proportion of the workforce who are self-employed has decreased slightly from 12.3 per cent in 2001 to 11.9 per cent in 2004. This suggests that there are attractive employment opportunities in working for other people rather than becoming self-employed in Wales. This perhaps emphasises the importance of continuing to highlight the values and advantages of working for oneself as part of the EAP's promotional activities.

Unlike many of its European neighbours, high unemployment has become less of a problem for the United Kingdom (UK) in recent years. In Wales, the seasonally adjusted unemployment rate was 4.1 per cent in the November to January 2005 period, down 0.8 percentage points on the same period a year earlier. Therefore, only 57,000 were claiming unemployment benefit within Wales. At first glance, this suggests that the 'pool' of individuals who may look to start up a business because of necessity rather than opportunity has decreased significantly in the last few years. However, this does not take into account the 420,000 people who are classed as being economically inactive within Wales (Sept-Nov 2004), including 131,000 aged between 18-34. Perhaps one of the greatest challenges in increasing prosperity within Wales over the next few years is to ensure that these young people have an active role to play in the economy, especially given that this age group is recognised as having the greatest potential for entrepreneurial activity. The 2005 study will examine this issue in greater detail but it is clear that more research needs to be undertaken into the motivations and aspirations of this group and, from this, to develop practical policy instruments that can exploit the creative and entrepreneurial talents of this group of young people for the benefit of the economy.

[3] ONS (2005) Labour Market Statistics March 2005: Wales, ONS, London, 16th March

CHAPTER 3: ENTREPRENEURIAL ACTIVITY IN WALES 2004

3.1 Total Entrepreneurial Activity in Wales

As Figure 3.1 shows, the 2004 TEA index for Wales was measured at 5.5 per cent, a decrease from the 6.8 per cent recorded in 2003, but well above the 3.9 per cent in 2002. This places Wales nominally in the top twenty most entrepreneurial nations in the World, ahead of a number of major European nations including Finland (4.4 per cent), Italy (4.3 per cent), and Sweden (3.7 per cent) but behind other small nations such as New Zealand (14.7 per cent) and Iceland (13.7 per cent). However, it is worth noting that the vertical bars in Figure 3.1 display the 95 per cent confidence intervals – sometimes referred to as the margins of error – and indicate the precision of these estimates. In other words, if GEM researchers surveyed the entire population of a country, the actual rate of entrepreneurial activity would have a 95 per cent probability of falling along the vertical bar around these estimated points. Where the vertical bars overlap there is no statistical difference between the countries under consideration. So, among nations with lower TEA rates, it could be said that Wales has comparable levels of entrepreneurial activity with Norway, Ireland and Israel.

Overall, the average level of entrepreneurial activity among the thirty five nations in GEM 2004 was 9.3 per cent, although this does vary tremendously from 40 per cent of adults in Peru (one in two people) to 1.5 per cent of adults in Japan (one person in seventy). The 2004 TEA for the UK was 6.3 per cent, a slight, but statistically insignificant, decrease on 2003.

The GEM 2004 global report has concentrated on grouping much of the examination of entrepreneurial activity according to the relative prosperity of nations. This will be partly discussed later in this report. However, it is worth noting that cultural and demographic trends can also affect the development of entrepreneurship within different geographical groups. As Figure 3.2 shows, Wales is ranked towards the middle of the Western European Group and is not in a dissimilar position to last year, and has the same TEA as the average for Western Europe of 5.5 per cent. This compares to 16.6 per cent for South America, 11.1 per cent for North America, 13.0 per cent for Africa and the Middle East and 3.4 per cent for Asia and Oceania.

Figure 3.1: Total Entrepreneurial Activity by Country, 2004

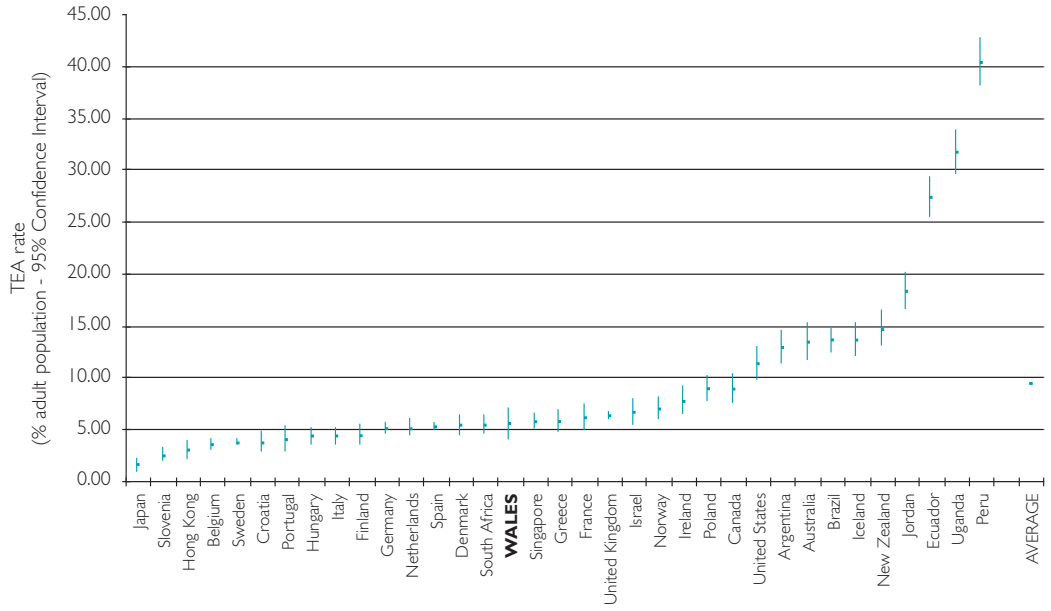
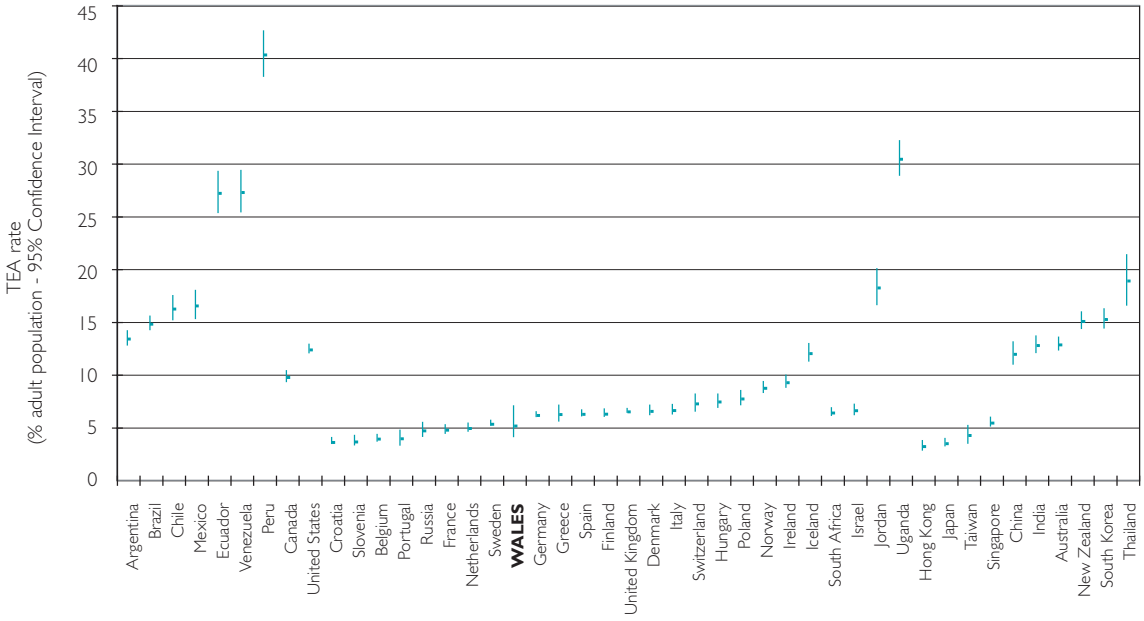


Figure 3.2: Total Entrepreneurial Activity by World Region, 2000-2004



According to the GEM Global report, the European experience of entrepreneurship still faces a number of important challenges and Welsh policy-makers need to be aware of these in addition to more parochial national imperatives. These challenges include:

- **Changing the Entrepreneurial Mindset** – While entrepreneurship attitudes are less positive in the EU than in other OECD countries, notable similarities exist among European countries. Given the strong positive relationship between cultural support (on a national level) and the level of entrepreneurial activity, the European Commission intends to enhance positive attitudes by giving entrepreneurship a more prominent place in educational programmes and enhancing cultural support and social norms via other channels, such as media and role models. *Through the different initiatives of the Entrepreneurship Action Plan, such as the Dynamo Project, Wales is already making considerable progress in adopting a more entrepreneurial culture.*

- **Employment security** – The relatively low TEA rates of many EU countries is probably a reflection of the high 'opportunity costs' of entrepreneurship and of the lower 'urgency' to engage in necessity-driven entrepreneurial activities due to the generous regime of employment protection and unemployment benefits. *In Wales, it would be expected that much of the entrepreneurial activity would be opportunity driven due to the continuing decrease in unemployment.*

- **Age structure** – As will be discussed later in this report, people above the age of 50 are less likely to be involved in new entrepreneurial activities than people below the age of 35, and those European nations with a higher share of younger adults tend to have higher TEA rates. Given that ageing is therefore a negative influence on business start-ups, greater attention must be paid to entrepreneurship opportunities for people age 50 and above. *In Wales, the contribution of Prime Cymru, which targets entrepreneurial activity amongst the over-50s, has been substantial on programmes such as Potentia.*

- **Technology-based start-ups** – European countries have difficulties in transforming existing technological knowledge into new business activities. Much remains to be done to deal with key barriers, including high regulation and a culture/reward system that penalises the commercialisation of knowledge created in research institutions. *Wales is beginning to address these issues through developments such as the Technology Commercialisation Centre (TCC) and the proposed Knowledge Bank.*

Table 3.1: Total Entrepreneurial Activity 2000-2004, by Nation

Country	TEA 2000	TEA 2001	TEA 2002	TEA 2003	TEA 2004	Population 18-64 2004	Total labour force 2003	Estimate of TEA participants
Peru					**40.3**	15,680,000	10,400,000	6,325,000
Uganda				29.3	**31.6**	10,608,000	12,100,000	3,356,000
Ecuador					**27.2**	7,264,000	5,100,000	1,979,000
Jordan					**18.3**	3,078,000	1,400,000	562,000
New Zealand		18.1	14.0	13.6	**14.7**	2,496,000	2,020,000	366,000
Iceland			11.3	11.2	**13.6**	181,000	160,000	25,000
Brazil	21.4	12.7	13.5	12.9	**13.5**	114,005,000	85,830,000	15,368,000
Australia	15.2	15.5	8.7	11.6	**13.4**	12,542,000	10,150,000	1,678,000
Argentina	9.2	11.1	14.2	19.7	**12.8**	22,895,000	13,930,000	2,940,000
USA	16.6	11.6	10.5	11.9	**11.3**	183,430,000	146,510,000	20,783,000
Canada	12.2	11.0	8.8	8.0	**8.9**	21,060,000	17,050,000	1,864,000
Poland			10.0	4.4	**8.8**	25,265,000	17,050,000	2,231,000
Ireland		12.2	9.1	8.1	**7.7**	2,502,000	1,920,000	193,000
Norway	11.9	8.8	8.7	7.5	**7.0**	2,824,000	2,370,000	197,000
Israel		7.1	5.7	7.1	**6.6**	3,617,000	2,610,000	239,000
UK	6.9	7.8	5.4	6.4	**6.3**	37,582,000	29,930,000	2,349,000
France	5.6	7.4	3.2	1.6	**6.0**	37,064,000	27,010,000	2,235,000
Greece				6.8	**5.8**	6,780,000	4,450,000	391,000
Singapore	4.2	6.6	5.9	5.0	**5.7**	3,142,000	2,150,000	179,000
Wales	**2.6**	**6.0**	**3.9**	**6.8**	**5.5**	**1,785,000**	**1,333,000**	**98,175**
South Africa		9.4	6.5	4.3	**5.4**	25,122,000	16,200,000	1,357,000
Denmark	7.2	8.0	6.5	5.9	**5.3**	3,402,000	2,870,000	181,000
Spain	6.9	8.2	4.6	6.8	**5.2**	26,110,000	18,820,000	1,345,000
Netherlands		6.4	4.6	3.6	**5.1**	10,469,000	8,150,000	535,000
Germany	7.5	8.0	5.2	5.2	**5.1**	52,404,000	39,510,000	2,672,000
Finland	8.1	7.7	4.6	6.9	**4.4**	3,289,000	2,600,000	144,000
Italy	7.3	10.2	5.9	3.2	**4.3**	37,162,000	24,150,000	1,605,000
Hungary			11.4	6.6	**4.3**	6,550,000	4,150,000	281,000
Portugal				7.1	**4.0**	6,603,000	5,410,000	261,000
Sweden	6.7	6.7	4.0	4.1	**3.7**	5,510,000	4,450,000	204,000
Croatia			3.6	2.6	**3.7**	2,841,000	2,100,000	106,000
Belgium	4.8	4.5	3.0	3.9	**3.5**	6,424,000	4,710,000	223,000
Hong Kong			3.4	3.2	**3.0**	4,777,000	3,500,000	142,000
Slovenia			4.6	4.1	**2.6**	1,344,000	960,000	35,000
Japan	6.4	5.2	1.8	2.8	**1.5**	80,830,000	66,660,000	1,196,000

Table 3.1 shows the total entrepreneurial activity by nation since 2000, as well as the estimated number of people involved in entrepreneurial activities within the 35 nations being studied. According to the GEM 2004 report, an estimated total of 73.2 million adults were involved in entrepreneurial activity during 2004. In Wales, it is estimated that 98,175 adults were entrepreneurially active, which accounts for 7.4 per cent of the labour force.

Wales is one of only eighteen nations – along with Argentina, Australia, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Italy, Japan, Norway, Scotland Singapore, Spain, Sweden, United Kingdom, and United States – that have participated in the GEM project during the last five years. An examination of the GEM data over this period shows that Wales has recorded a high of 6.8 per cent in 2003 and a low of 2.6 per cent in 2000. This contrasts with the average for the nineteen nations of a high of 9.3 per cent in 2000 and low of 6.7 per cent in 2002. These statistics suggest that Wales has closed the gap significantly with a number of major nations in terms of entrepreneurial activity during the previous five years and there now needs to be a far more detailed examination of the specific framework conditions that have led to this development.

Perhaps the most striking feature of this longitudinal data is how entrepreneurial activity in Wales has grown relative to the average for the eighteen original GEM participants. In 2000, the Welsh TEA was at 28 per cent of the average for this GEM-18 group whilst in 2005, this had risen to 94 per cent. Since 2000, only three other nations – Argentina, France and Singapore – have shown an overall increase in their entrepreneurial activity rate. However, none of these have shown an improvement as high as Wales during this five year period, with total entrepreneurial activity more than doubling over the five year period from 2.6 per cent in 2000 to 5.5 per cent in 2004.

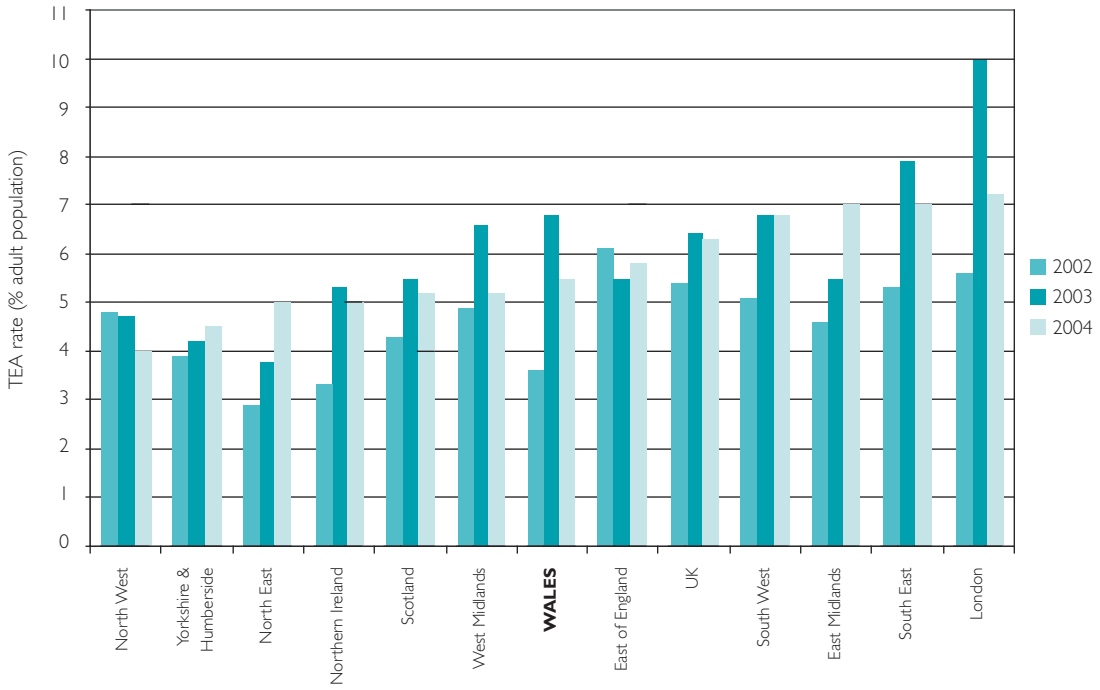
3.2 Total Entrepreneurial Activity in the UK Regions

Whilst comparing Wales to the other GEM nations globally is of great interest, it is perhaps more relevant to understand how we are developing entrepreneurially as a devolved nation as compared to the other regions of the United Kingdom, and Figure 3.3 shows the level of total entrepreneurial activity (TEA) at a regional level in the UK for 2002, 2003 and 2004.

As stated earlier, TEA in Wales has decreased from 6.8 per cent in 2003 to 5.5 per cent in 2004, giving a position in the middle of the regional entrepreneurial activity index within the UK. This is higher than the two other devolved regions of Scotland and Northern Ireland. Only four regions of the UK – Yorkshire and Humberside, North East, East of England and East Midlands – have experienced an increase in TEA between 2003 and 2004. In contrast, TEA in the UK has remained very similar to the 2003 level at 6.3 per cent of the adult population of working age. This means that Wales is currently ranked 6th out of the 12 UK regions, a decline on 2003 when it was second only to London and the South East. By region, London has the highest regional TEA activity rate at 7.2 per cent and the North West the lowest at 4.0 per cent.

Whilst our overall performance may have declined, the relative performance has improved considerably and the gap between Wales and the highest ranked region in the UK has reduced significantly since last year. Whilst in 2003, the TEA level in Wales was at 68 per cent of the London TEA, it was measured at 76 per cent of the London TEA in 2004. At the same time, the gap between the lowest ranked region in the UK – the North West – and Wales has also closed. This suggests that regional differences in entrepreneurial activity are slowly being eroded, although data on new firm registrations suggests that there are still large local disparities between the propensity of the UK population to become involved in entrepreneurial activity.

Figure 3.3: Total Entrepreneurial Activity by UK Region, 2002, 2003 & 2004



3.3 Nascent Entrepreneurship

The proportion of the working age adult population in Wales who were actively participating in the process of start-up in 2004 was 3.2 per cent, a slight decrease on last year's measure of 3.6 per cent although the difference is not statistically significant. This means one in thirty people in Wales were involved in starting a new business in 2004, or approximately 57,120 working age adults.

Start-up activity in Wales has improved considerably from a level of 1.0 per cent in the first study in 2000. This represents an increase of 260 per cent and is testament to the vast effort that has gone into encouraging new venture creation in Wales through the different programmes available under the Entrepreneurship Action Plan.

This result also demonstrates that new venture creation in Wales has steadied during the last couple of years, although there needs to be a significant step change to reach the levels of other small developed nations such as New Zealand (8.4 per cent) and Iceland (7.7 per cent). Indeed, Wales continues to be stuck in the middle group of GEM countries in terms of start-up activity, although this is a significant improvement on 2000 and 2001 when it was ranked in the bottom five nations in the World. The countries with the highest rate of nascent entrepreneurship are Peru (31.0 per cent), Ecuador (16.9 per cent) and Uganda (16.0 per cent) are shown in Figure 3.4. The lowest rates of nascent entrepreneurship were to be found in Sweden (1.7 per cent), Hong Kong (1.5 per cent) and Japan (0.5 per cent). That means in the latter country, only one in two hundred people within the population were involved in new venture creation in 2004.

As Figure 3.5 shows, Welsh nascent entrepreneurship is slightly below the 2004 UK average of 3.4 per cent. London has the highest start-up activity rate at 4.6 per cent whilst the North West and the East of England have the lowest at 2.2 per cent.

3.4 New Firm formation

In 2004, Wales had a new firm prevalence rate of 2.5 per cent of the adult population engaged in running firms less than 42 months old. This is a decline of 25 per cent since 2003 and is only slightly above the rate of 2.0 per cent measured in 2002 (Figure 3.6). This ranks Wales 19th out of the 34 GEM nations. Slovenia has the lowest rate at just 0.7 per cent followed by Croatia with 1.1 per cent. The countries with the highest rate of new firm activity are Uganda (18.0 per cent), Peru (12.9 per cent), and Ecuador (11.1 per cent).

Figure 3.4: Nascent Entrepreneurial Activity, 2004: by Country

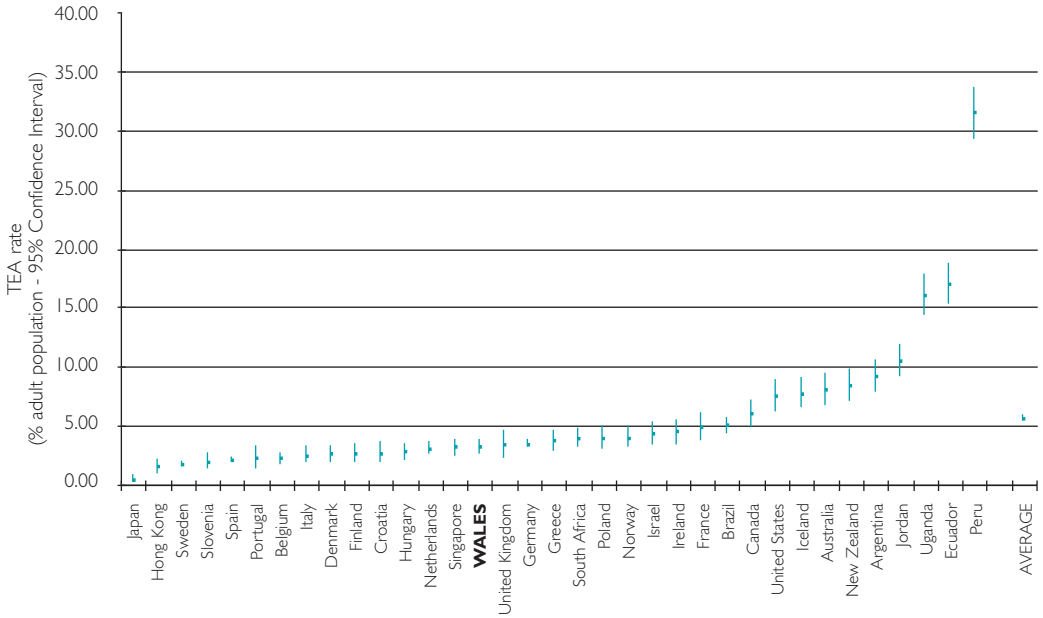
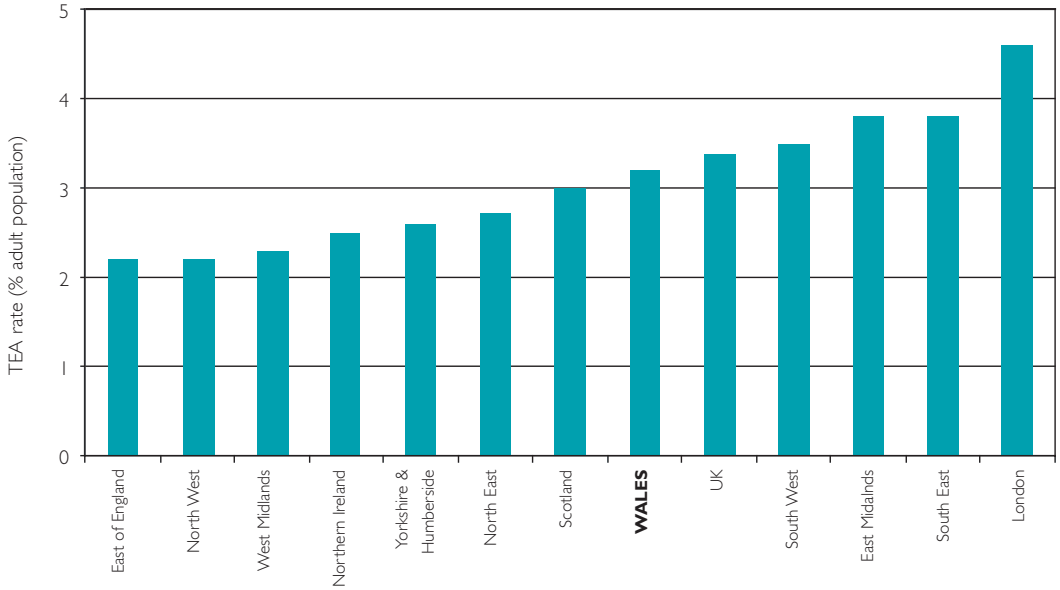


Figure 3.5: Nascent Entrepreneurial Activity, 2004: by UK Region



As Figure 3.7 demonstrates, Wales has one of the lowest new firm prevalence rates of the UK regions, with only Scotland (2.4 per cent), Yorkshire and Humberside (2.1 per cent) and the North West (2.0 per cent) being lower. Surprisingly, the highest new firm rates are not to be found in London or the South East but in East England (4.0 per cent) and the East Midlands (3.7 per cent)

For the fifth time in the series of GEM studies, the new firm rate in Wales is lower than the nascent entrepreneurship rate, reflecting the pattern across most of the nations participating in the GEM study. However, the gap in Wales has widened since 2003, which may suggest that some of the businesses that were created during last year's high point for new venture creation have declined or shut during 2004. The link between nascent entrepreneurship and new firm development is an area of research that will be examined in greater detail by the Wales team in the 2005 study.

Figure 3.6: New Business Prevalence Rate (up to 42 months old), 2004: by Country

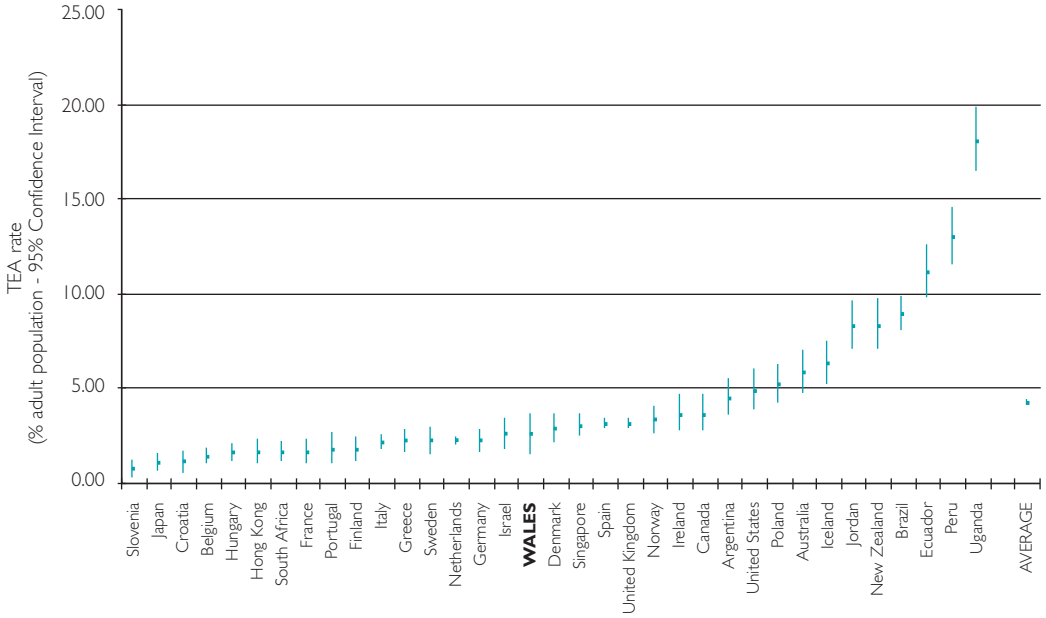
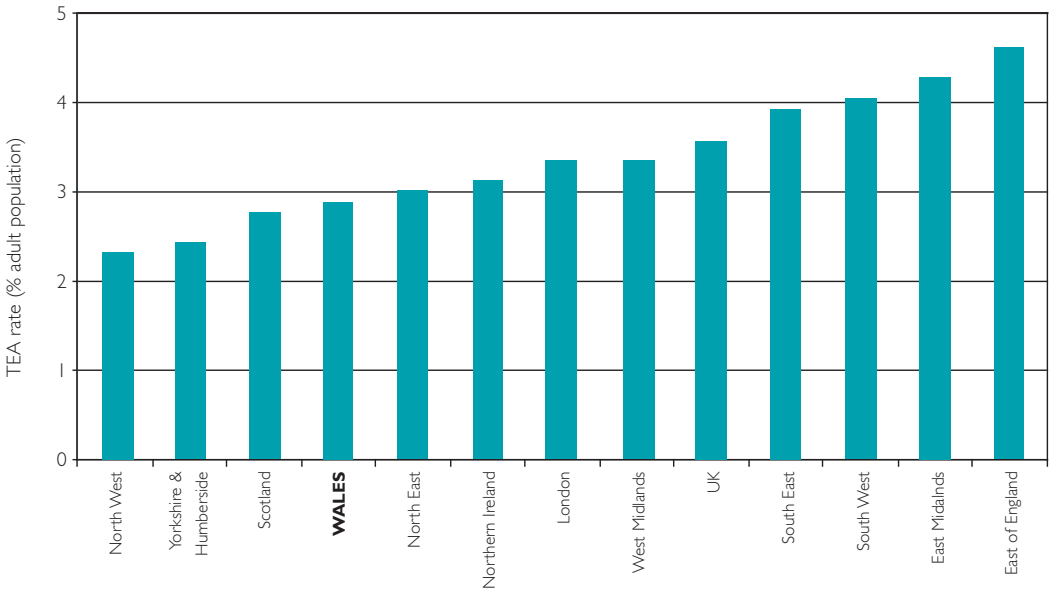


Figure 3.7: New Business Prevalence Rate (up to 42 months old), 2004: by UK Region



3.5 Opportunity and Necessity Entrepreneurship

The GEM study measures individual participation in entrepreneurial activities in two ways - individuals either start a new business to exploit a perceived business opportunity or they are pushed into entrepreneurship because all other options for work are either absent or unsatisfactory. These measurements of entrepreneurial activity have been used since 2001 and enable a determination to be made of how the different types of pathways into entrepreneurship are linked to the overall entrepreneurial activity of a nation as well as its stage of economic development. In 2004, around two thirds of all those involved in entrepreneurial activity globally were doing so to take advantage of a business opportunity whilst the remaining third were starting up a new business because they had no better option.

As Figure 3.8 shows, 4.6 per cent of the Welsh population have set up a business to take advantage of opportunities that are available in the marketplace (or approximately 82,110 adults). This places Wales at slightly below the average opportunity TEA across all countries in the GEM study of 6.2 per cent. However, it must be noted that there are significant statistical differences across countries with opportunity prevalence rates ranging from as high as 27 per cent in Peru to as low as low as 1.1 per cent in Japan.

Figure 3.8: Opportunity Entrepreneurial Activity, 2004: by Country

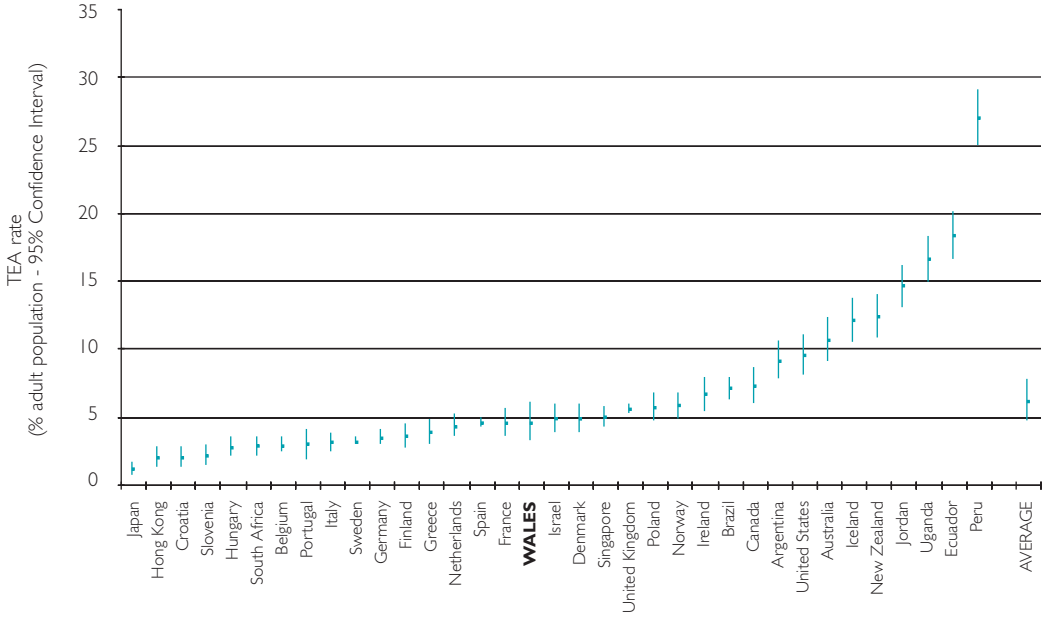
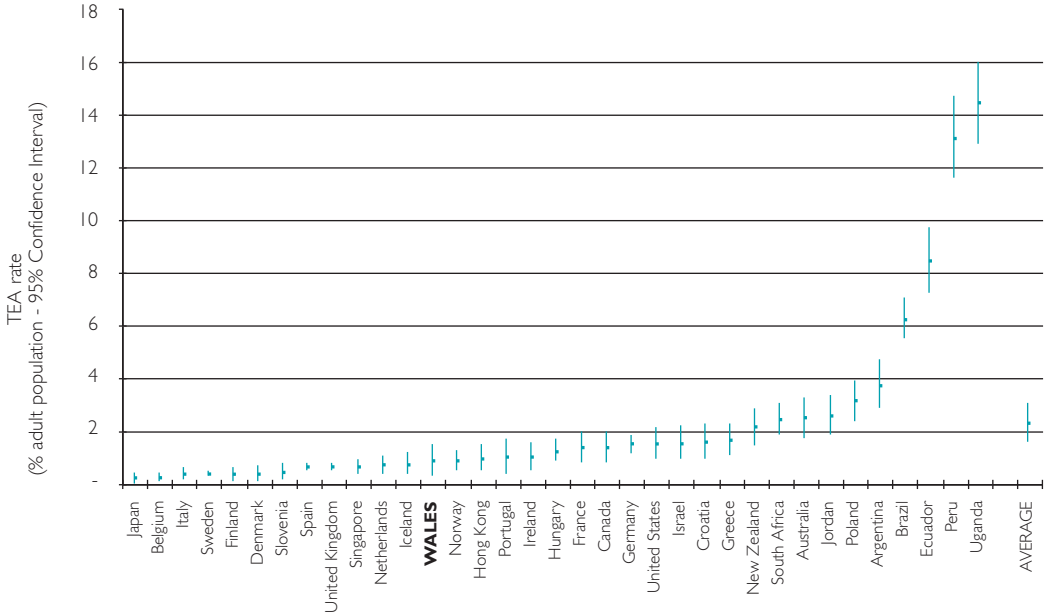


Figure 3.9: Necessity Entrepreneurial Activity, 2004: by Country



In terms of necessity entrepreneurship – where individuals perceive they have no choice but to enter into entrepreneurial activity – Figure 3.9 shows Wales with a necessity TEA of 0.8 per cent, which is a third of the average of 2.3 per cent across all countries in the GEM 2004 study. This suggests that only around one in 125 of the labour force in Wales actually participates in entrepreneurship because of the lack of better alternatives and reflects the situation in most of the developed nations of the World. In the developing nations, the situation is quite different with as many as one in seven of working age adults involved in entrepreneurial activity by necessity.

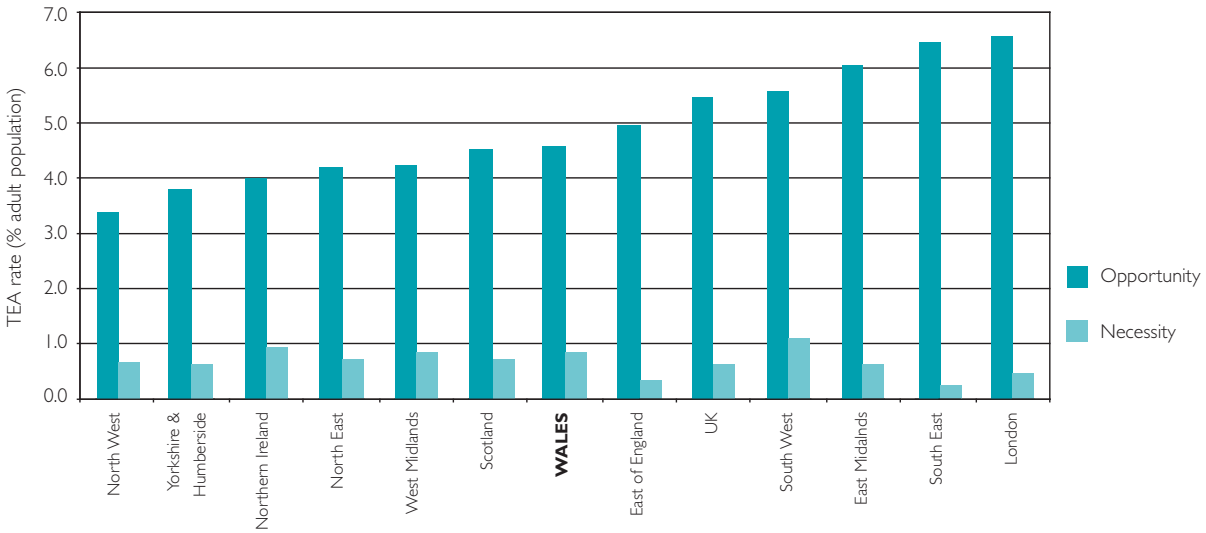
The actual absolute measurement of opportunity and necessity TEA does tend to conceal the relative importance of each type of enterprising activity to the economic development of a nation. Given this, it is important to examine the actual proportion of opportunity entrepreneurship as a percentage of total entrepreneurship. In this case, countries with high TEAs (such as Uganda) would have amongst the lowest proportion of entrepreneurs seeking an opportunity whilst the nation with the lowest TEA score – Japan – would have the highest.

In Wales, necessity entrepreneurship accounts for less than 15 per cent of all entrepreneurial activity measured in 2004. Indeed, the good news for Wales is that since 2002, the level of necessity entrepreneurship within the economy has been declining and opportunity-based TEA has risen from 72 per cent to 84 per cent of the total entrepreneurial activity in this year's study.

As the GEM study demonstrates, this is important in measuring the overall economic well-being of Wales as the varying levels of opportunity and necessity entrepreneurship are an initial indicator of the existence of a relationship between entrepreneurship and national income. Nations with higher per capita income exhibit lower necessity TEA rates and higher levels of opportunity-based entrepreneurship.

In comparing opportunity and necessity entrepreneurship within the United Kingdom, we find that Wales has a lower rate of opportunity entrepreneurship than the average for the UK (5.5 per cent) and a slightly higher rate of necessity entrepreneurship , although this is not statistically significant (Figure 3.10). Interestingly, UK regions with relatively high TEAs – such as London and the South East – have high incidences of opportunity entrepreneurship as a proportion of the total TEA within the region. In contrast, relatively poorer regions such as the North East and Northern Ireland had higher than average incidences of necessity entrepreneurship. This reflects the findings of the GEM Global study discussed earlier and may suggest that quite different regional devices are required to encourage entrepreneurship within these regions. This is a research issue that will be explored further by the GEM UK team later this year.

Figure 3.10: Opportunity and Necessity TEA, 2004: by UK Region



3.6 Business Churn

One of the key inferences of the GEM Model, described in Appendix B, is that a dynamic economy is one where the rate of GDP growth is high. A measure of this dynamism is the rate of so called 'business churn.' In other words, increasing GDP is associated with economies which have large numbers of new firms created, as well as companies dying. If more companies are created than die, the churn is positive, which is advantageous to the economy. In addition, this will increase the 'stock' of businesses creating employment opportunities and further related multiplier impacts on the economy. Table 3.2 shows both the total churn and net effect on business stock for the UK regions in 2004.

In Wales in 2004, 6.5 per cent of the population were involved in start-up activities either independently or as part of their normal jobs. 1.7 per cent of the Welsh population had also closed a business during that time creating a churn rate of 8.1 per cent. This compares to a UK rate of 8.6 per cent and there is no statistical difference between the two measures. This suggests that the environment for 'doing business' in Wales is no different to the UK average and is actually better than other regions such as the North East, North West and Northern Ireland. The net effect on stock in Wales is 4.8 per cent which is slightly higher than the UK average because the rate of closures is marginally lower in Wales.

These figures are indicative of a positive feature in the Welsh economy, but need to be observed over a longer time frame to draw any more general conclusions. The derivation of a consistent set of regionally comparative data in one of the key outcomes from the GEM UK team this year and as the study progresses this type of indicator will give us a much better feel for the state of business activity in Wales.

Table 3.2: Churn and Business Stock at a UK Regional Level, 2003-2004

	Start-ups (A) (independent + job related start up)		Closures (B)		Total Churn (A+B)		Net Effect on Stock (A-B)	
	2003	2004	2003	2004	2003	2004	2003	2004
East Midlands	5.5	6.6	3.5	1.9	9.0	8.5	2.0	4.7
East of England	7.3	4.3	2.6	1.8	9.9	6.1	4.7	2.4
London	10.7	8.4	2.1	2.1	12.8	10.5	8.6	6.3
North East	5.0	4.5	0.5	0.8	5.8	5.3	4.8	3.8
North West	5.9	4.2	2.1	1.4	8.0	5.6	3.8	2.9
Northern Ireland	6.6	4.7	1.3	1.2	7.9	5.9	5.3	3.5
Scotland	6.0	6.1	1.3	1.6	7.3	7.7	4.7	4.5
South East	7.8	7.7	2.4	2.3	10.2	10.0	5.4	5.4
South West	7.6	6.8	2.4	2.3	10.0	9.2	5.2	4.5
Wales	7.6	6.5	2.5	1.7	10.1	8.1	5.1	4.8
West Midlands	7.5	5.5	1.7	2.3	9.2	7.8	5.8	3.3
Yorkshire & Humberside	5.9	4.7	1.9	1.6	7.8	6.3	4.0	3.0
UK	6.9	6.5	2.1	2.0	9.3	8.6	5.1	4.5

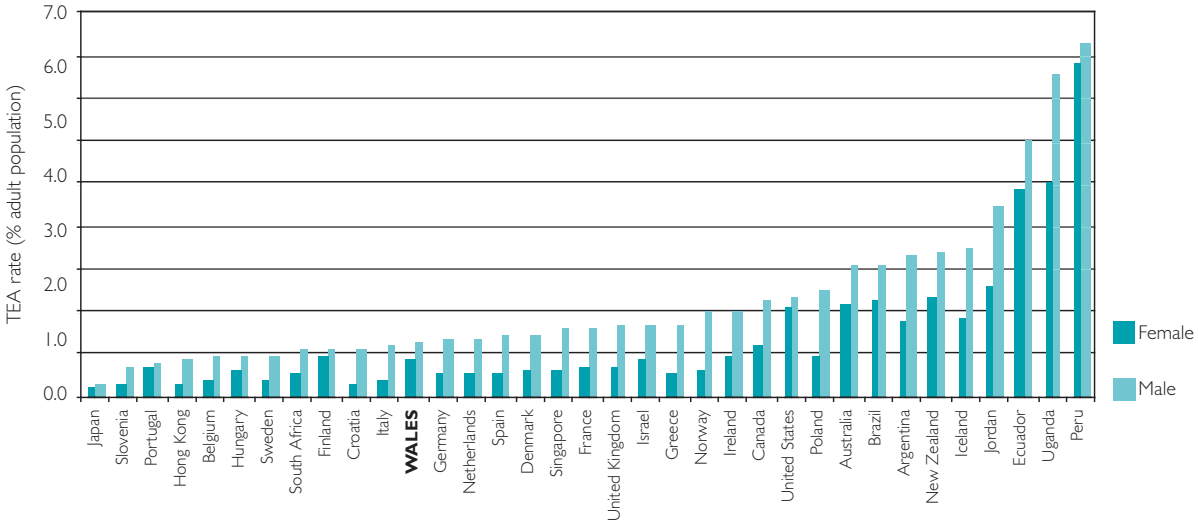
*figures subject to rounding

CHAPTER 4 ENTREPRENEURIAL CHARACTERISTICS

4.1 Entrepreneurship and Gender

In 2004, female TEA in Wales was measured at 4.5 per cent, which represents a slight increase on 2003. In contrast, male TEA has declined from 9.1 per cent in 2003 to 6.5 per cent in 2004. Therefore, with the female TEA now at three quarters that of the male TEA, Wales has one of the best gender balances in entrepreneurship in the whole World.

Figure 4.1: Total Entrepreneurial Activity, 2004: by Country by Gender



In contrast, the GEM global figures show that within the majority of the nations of the World, there are almost twice as many men who are active entrepreneurs than women. Interestingly, in no country are there more women who are active entrepreneurs than men and the largest gender divisions are to be found in France, Greece, Hong Kong and Spain.

In comparing gender and entrepreneurship across the UK regions for 2004, we find that Wales is not alone in having reduced the entrepreneurial deficit between male and female entrepreneurship (Figure 4.2). Female entrepreneurship for the UK is 45.9 per cent of male entrepreneurial activity although six regions have a higher proportion of female to male entrepreneurship than the UK average, namely Wales (71.0 per cent), South West (69.2 per cent), the North East (57.4 per cent), Scotland (56.2 per cent), Yorkshire and Humberside (52.7 per cent) and the East Midlands (47.6 per cent).

Whilst Wales is similar to the UK in having a female TEA that has increased slightly since 2003, there is a significant difference in terms of male TEA, which has only decreased slightly for the UK as compared to a decrease of nearly a third in Wales. This was the largest decline of male entrepreneurship of any region during this period and emphasises the importance of maintaining entrepreneurial activity amongst males whilst also encouraging more women to enter self-employment (Figure 4.2). The highest level of male entrepreneurial activity is to be found in the most entrepreneurial region, namely London with 10.5 per cent of the male adult population. In contrast, the lowest level of male entrepreneurial activity is to be found in the North West at 5.4 per cent of the male population.

The highest level of female entrepreneurship in 2004 is to be found in the South West with 5.6 per cent of the adult female population, with Wales ranked second. The lowest is in Northern Ireland at 2.3 per cent of the population. The relative strength of female entrepreneurship within some of these regions, most notably Wales and Scotland, has maintained a respectable TEA index for 2004. If there had been a similar decline in the number of female entrepreneurs as with the male population, then the TEA index for Wales would be amongst the worst in the UK.

With respect to the gender balance regarding different types of entrepreneurial activity in the UK, 7.6 per cent of UK males are opportunity driven as opposed to 3.3 per cent of women. London has the lowest proportion of women involved in opportunity entrepreneurship with Wales having the highest proportion – opportunity entrepreneurship was 3.3 per cent for women compared to 5.8 per cent for the male population.

Figure 4.2: Total Entrepreneurial Activity, 2004: by UK Region and Gender

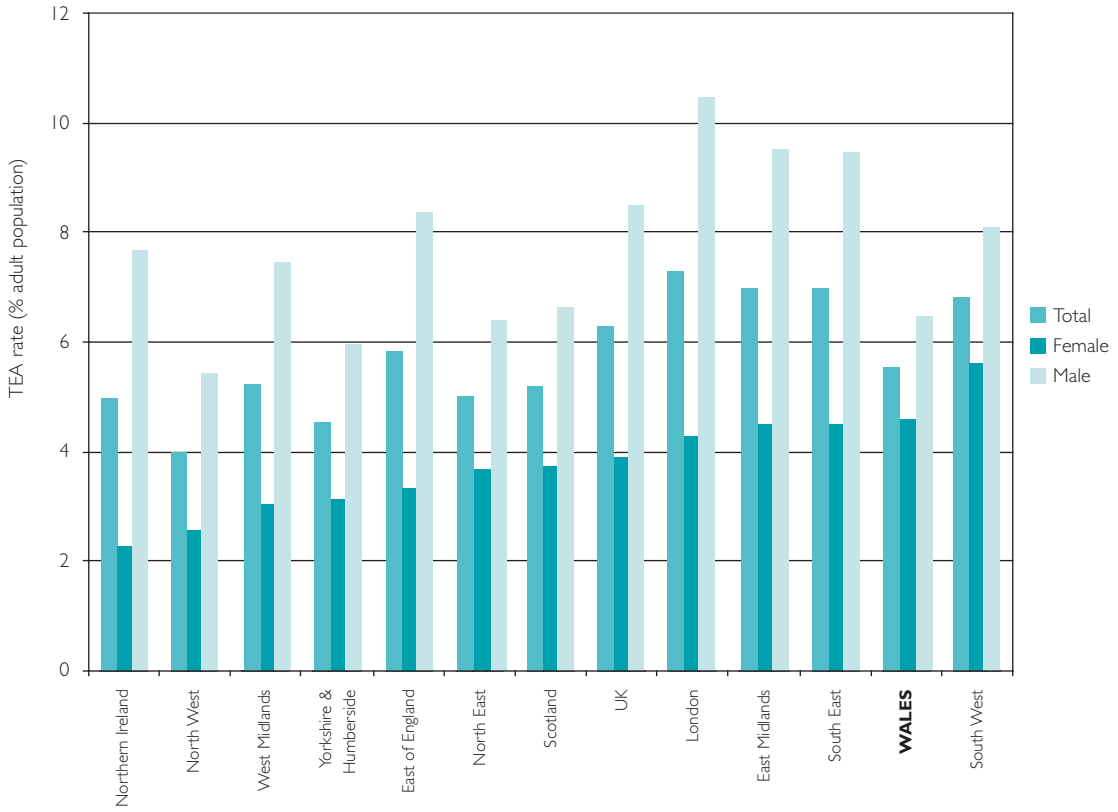


Figure 4.3: Trends in Male Entrepreneurial Activity, 2002-2004: by UK Region

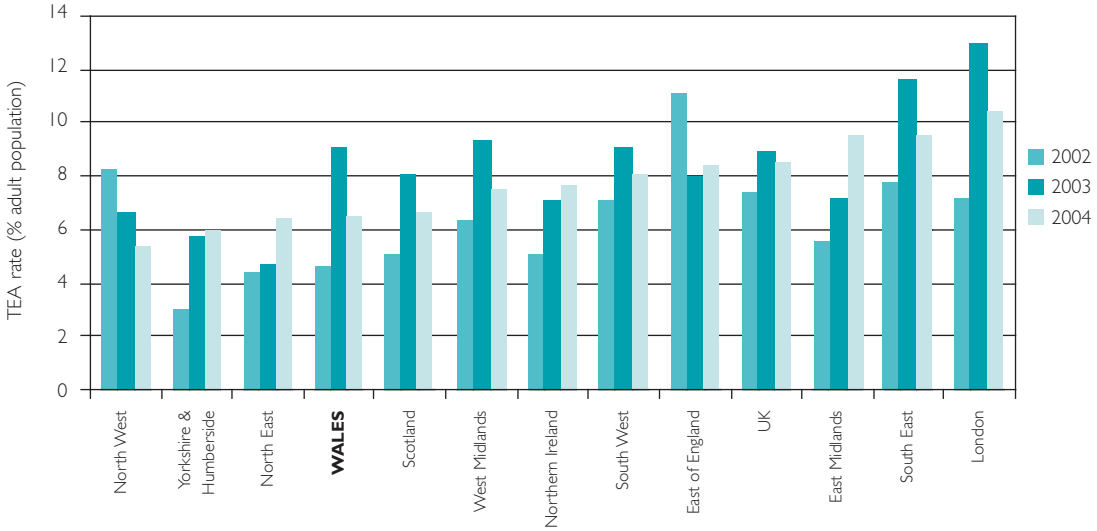
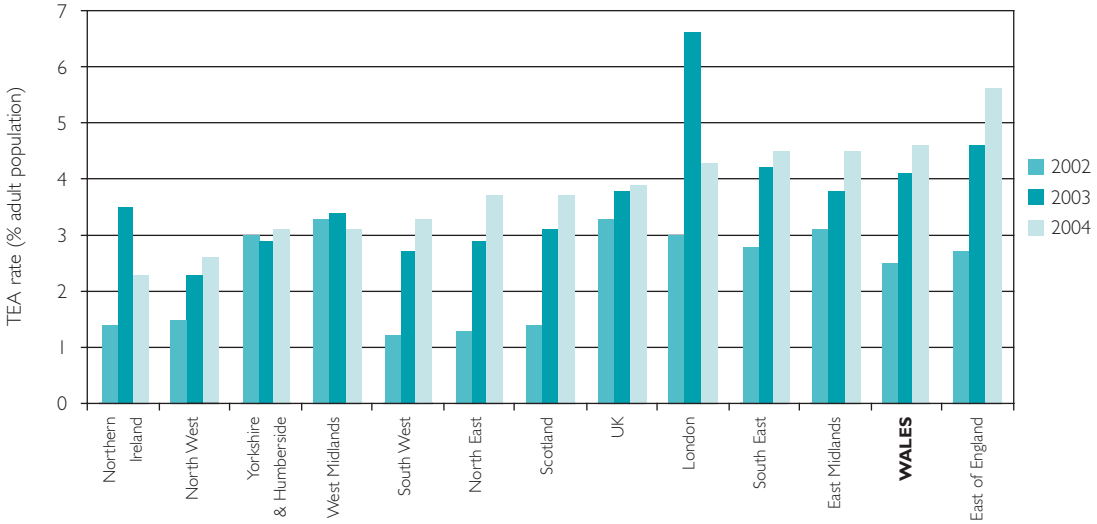


Figure 4.4: Trends in Female Entrepreneurial Activity, 2002-2004: by UK Region

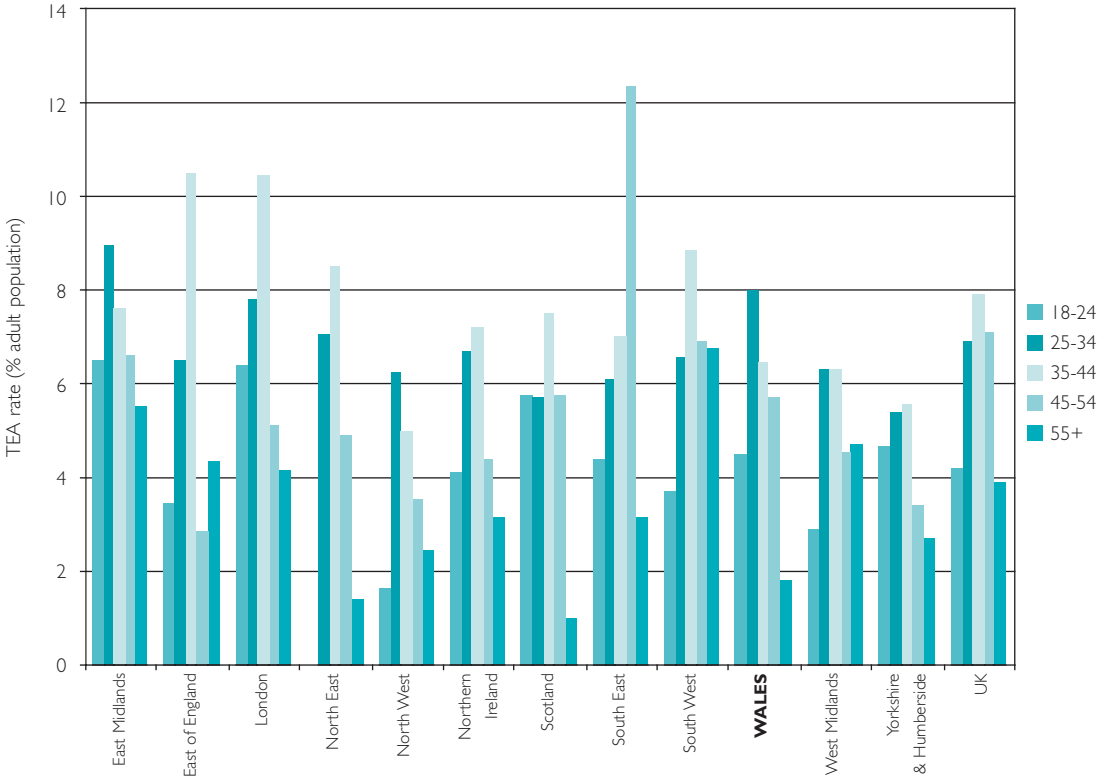


4.2 Entrepreneurship and Age

This year's Global GEM study examined a number of key entrepreneurial influences - such as age and education - according to the relative wealth of the different countries being studied. In terms of age profiles of entrepreneurs, it was found that in the majority of countries studied, young people between 25 and 34 years of age are the most active entrepreneurial group of the population. Beyond this age, there tends to be a steady decline in entrepreneurial activity and this is a pattern that has been replicated in every GEM study since 2000.

Interestingly, this pattern is not repeated in the UK for 2004, where the peak for entrepreneurial activity by age is found amongst 35-44 year olds, followed by the 45-54 year old bracket (Figure 4.5). This particular skew in the statistics seem to be driven by the specific performance of the middle-aged within three particular regions. In London, TEA amongst 35-44 year olds is measured at 10.1 per cent whilst the TEA for the same age group in the North East is double the TEA for any of the other age groups. In the South East of England, there is the remarkable result of entrepreneurship within the 45-54 age group being nearly double the average TEA for the whole of the UK population. The survey sample size in that area is sufficiently large to suggest that this result is not a statistical anomaly.

Figure 4.5: Total Entrepreneurial Activity, 2004: By Age By UK Region



In contrast to much of the UK regional data, Wales follows the general global trend pattern, with 25-34 year olds being the most entrepreneurial group with a TEA of 8.0 per cent. Two other regions - the East Midlands and the North West – also have the largest degree of entrepreneurial activity in this age group. Not surprisingly, the two age groups in Wales with the lowest entrepreneurial activity are 18-24 year olds (with a TEA of 4.5 per cent) and those aged 55 and over (with a TEA of 1.8 per cent).

In terms of developing entrepreneurship within Wales in the future, there are some important lessons to be gained from these results. First of all, it is clear that age is an important factor in the decision to become an entrepreneur and there may be considerable difficulties in developing or increasing entrepreneurship within those countries where there is either a largely youthful or an ageing population. In the short term, a more detailed analysis needs to be made of the underlying potential for entrepreneurship within the current demographic structure of the Welsh working population.

Current statistics indicate that Wales has seen a decline in those aged between 25-34 years in the workforce since 2001, although the number of those aged between 18-24 years in employment has increased by over 30,000 in the period 2001-2004. Therefore the challenge is to ensure that many of these individuals are put into the position where they may consider becoming actively engaged in entrepreneurship within the next few years.

4.3 Entrepreneurship, Education and Income

Whilst the GEM data during the last five years has indicated that the relationship between education and entrepreneurial activity remains unclear and very much country-specific, the levels of educational attainment will certainly have some implications for entrepreneurial behaviour. Whilst it is difficult to compare with most developing nations because of their educational and social systems, the results for GEM Global show that 57 per cent of all entrepreneurs have a post-secondary education, suggesting that in these countries the education systems tend to build a suitable skills base for entrepreneurs. Certainly the myth of the 'uneducated entrepreneur' leaving school to start a business is no longer valid, with only 13 per cent of those involved in entrepreneurial activity having not completed their school education.

Table 4.1: Total Entrepreneurial Activity, 2004: by Education and Income

	Wales	UK
TEA	5.5	6.3
EDUCATION		
Postgraduate	5.2	7.8
First degree	5.9	8.2
A Level	6.1	5.0
GCSE/O Level	5.5	5.3
Vocational	7.6	6.8
No qualifications	1.7	4.6
INCOME		
Below £11.5k	4.7	4.5
£11.5k - £25k	4.3	4.6
£25k - £50k	5.7	7.9
£50k+	8.0	8.4

In Wales, the most entrepreneurially active group of adults is those with a largely vocational educational background, with 7.6 per cent involved in enterprise activities (Table 4.1). This contrasts with the situation within the UK where entrepreneurs are more likely to have followed a university education both at undergraduate (8.2 per cent) and postgraduate (7.8 per cent) levels. This has quite important implications for the development of enterprise education materials within tertiary education. Again, the tracking of the relative success of the businesses established by both types of entrepreneurs needs to be undertaken using a larger sample size than is available with this project and will form part of the GEM UK research team's efforts in 2005.

In terms of income, those with an annual salary in excess of £50,000 have the highest participation rates in entrepreneurial activity (8.0 per cent) which also reflects the UK situation.

4.4 Entrepreneurship and Immigration

One of the key issues for many nations wishing to increase their entrepreneurial activity rates is to attract entrepreneurial individuals from outside the country to establish new businesses. As the entrepreneurship research literature shows, there has been a long tradition of entrepreneurship amongst immigrants for a range of different reasons.

Whilst Wales may have a traditional image in terms of its economy and society, the 2001 census shows that it has by far the most diverse population of any of the main UK regions, as measured by the percentage of individuals born outside the country. According to the population survey, around a quarter of the Welsh population were born outside Wales, compared to only 13 per cent of the populations of Scotland and England and 9 per cent of the population of Northern Ireland. However, the converse is also true, with 22 per cent of the Welsh-born population living in other parts of the UK in 2002, as compared to 16 per cent for the Scots, 14 per cent for the Northern Irish and 12 per cent for the English. As the paper by Drinkwater and Blackaby[4] has demonstrated, the inflow of migrants to Wales has grown considerably from around 45,000 in 1981 to 64,000 in 2001, whilst the number of out-migrants from Wales to other parts of the UK has remained around the 50,000 mark since the mid-1980s.

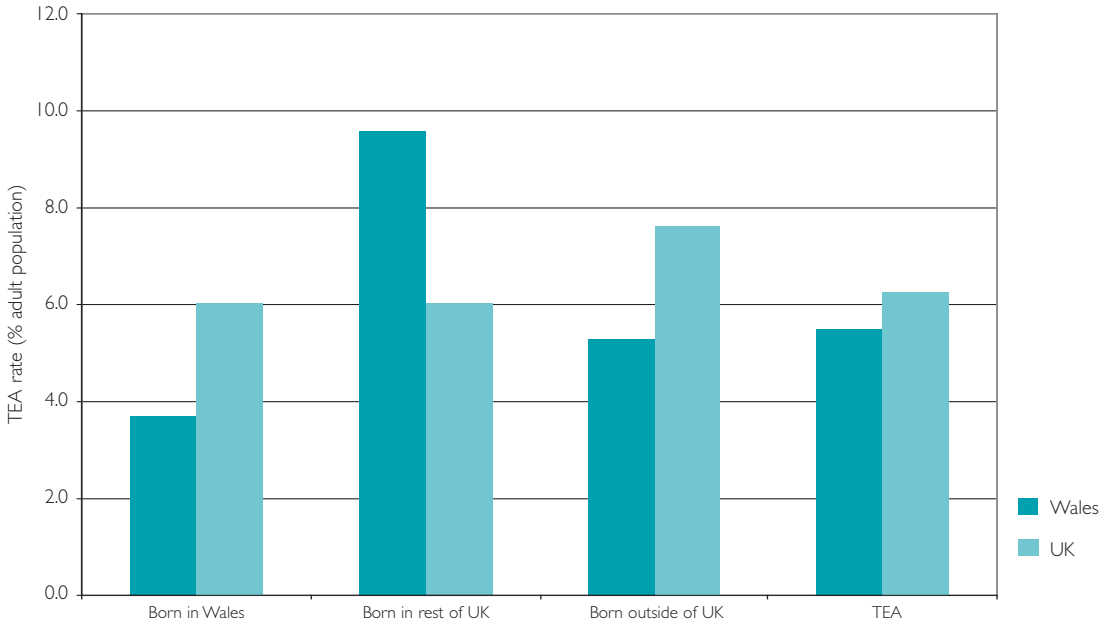
Given this fact, we have examined the relative impact of the immigrant population on entrepreneurial activity both into Wales and the outflow of Welsh entrepreneurs into the UK. As Figure 4.6 shows, the impact of immigrants on Welsh entrepreneurial activity is relatively higher than those born in Wales, with the major contribution being made by those born in other parts of the UK (with a TEA of 9.6 per cent) as opposed to Welsh born (3.7 per cent). The impact of immigrants born outside the UK is approximately the same as the GEM average for Wales, although it is noticeable that their impact on entrepreneurial activity at a UK level is almost 40 per cent higher than for Wales.

However, when we examine the impact of Welsh born entrepreneurs on the rest of the UK, we find that their rate of entrepreneurial activity is far higher outside the land of their birth than for those remaining in Wales. The study indicates that 6.1 per cent of the Welsh-born now living in England are entrepreneurially active as a group, 165 per cent higher than for those born and still living in Wales. This suggests that there are around 35,000 entrepreneurially active Welsh adults based in other parts of the UK although their overall contribution to entrepreneurship within the UK economy is relatively small.

Given the small sample sizes within the current Welsh study, it is difficult to examine entrepreneurial activity according to other key variables, especially ethnicity, although this will be a key theme of the new expanded GEM study in 2005, especially in comparing the data with statistics from the 2001 Census of Population.

[4] Drinkwater, S. and Blackaby, D. (2004) Migration and Labour Market Differences: the case of Wales, Institute for the Study of Labour, Discussion paper IZA DP 1275

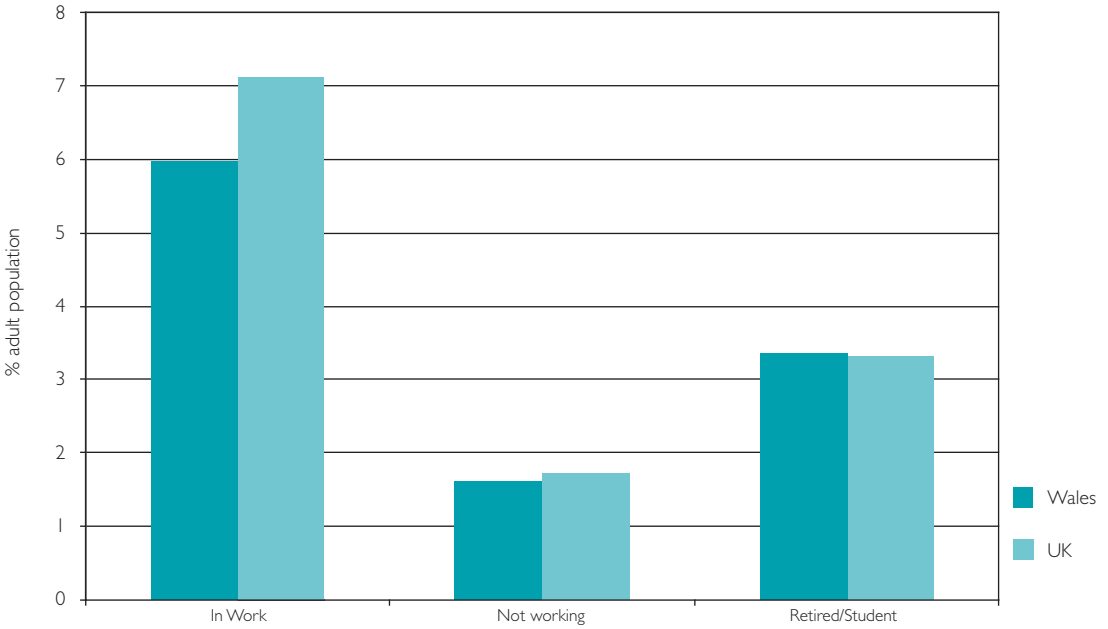
Figure 4.6: Total Entrepreneurial Activity, 2004: by Place of Birth



4.5 Entrepreneurship and Employment Status

One of the many interesting features of entrepreneurship, at least when analysed using the definition adopted by the GEM project, is the degree to which new business is instigated by those in work. Figure 4.7 illustrates that by far the greatest proportion of those starting new firms do so from a position of employment. This emphasises the 'opportunity' based nature of much of the activity in Wales and the UK, where individuals may be exploiting their experiences when starting new firms.

Figure 4.7: Entrepreneurial Activity by Employment Status in Wales and the UK, 2004



4.6 Entrepreneurship and Job Creation

Figure 4.8 illustrates the different SIC 1-digit sectors of the economy that the new firms created by the GEM entrepreneurs are operating in. In most cases, the difference between the UK and Wales is not significant. However, it is clear from the figure that there is more entrepreneurial activity in the retail sector in Wales and less in business services than in the UK. This could be worrying for the development of the economy given that the GEM Global report suggests that activity in the business services sector increases as national income rises. For example, in low-income countries, the business service sector accounts for just 10 per cent of new firms, while in the high-income group the figure is almost three times higher at 28 per cent.

By analysing individual questionnaire responses, it is possible to conclude that many of the ventures, especially in retail, are low value-added. The picture of sectoral diversity that emerges is complex, but nonetheless important in creating a better understanding of how the Welsh economy differs from that in other regions of the UK.

Figure 4.8: Distribution of TEA across SIC 1-digit sectors, Wales and UK, 2004

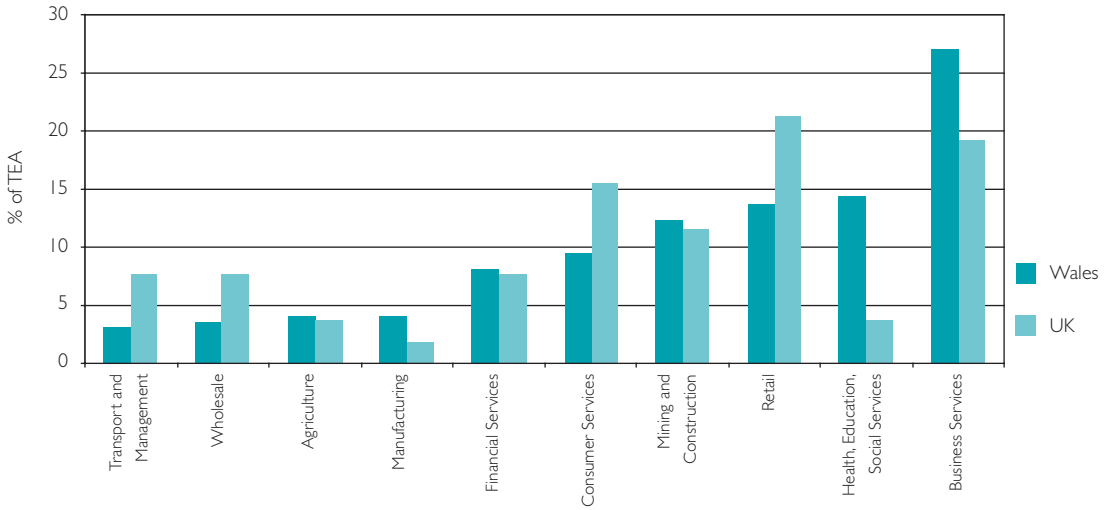


Table 4.2 shows that the median number of jobs created by start-ups in Wales is 2, compared to a UK figure of 1. The anticipated increase in jobs in Wales for these start-ups is a factor of 2 over the five year horizon, which compares to a prediction of a four-fold increase across the UK. The size of owner-managed businesses in Wales is smaller than that for the UK, although the median number of jobs now and predicted in five years are similar at the median level to the UK average.

Table 4.2: Job Creation Potential of Start-up and Owner-manager Businesses, Wales and the UK, 2004

	Wales	UK
	Mean (Median)	Mean (Median)
Start-ups: now	50 (2)	3.4 (1)
Start-ups: 5 years	29 (4)	32.4 (4)
Owner-managers: now	12 (2)	32.6 (1)
Owner-managers: 5 years	16 (3.0)	54.3 (2)

4.7 Entrepreneurship and Company Turnover

The GEM survey asks start-ups and owner-managers about their current turnover, the projected turnover of start-ups in 3 years time and the turnover of owner-manager businesses three years ago. This provides some indication of how realistic the assessment of growth potential by new businesses really is. The key findings from the GEM 2004 survey are set out in Table 4.3.

Table 4.3: Annual Turnover by Entrepreneurial Businesses in Wales and the UK, 2004[5]

	Wales		UK	
	Median £		Median £	
	Now	In 3 Years	Now	In 3 Years
Start-ups	50,000	144,000	40,000	90,000
	Now	3 Years ago	Now	3 Years ago
Owner-Managers	60,000	50,000	60,000	60,000

The median turnover for Welsh start-up companies is £50,000 compared to £40,000 as a UK average. The individuals engaged in these start-ups are optimistic when compared to the UK average and predict almost a three-fold increase over the next three years in Wales. There is clearly an issue over the reality of such expectations and this aspect of prediction reliability will be the subject of increased scrutiny in the enlarged 2005 survey. The median turnover in Welsh owner-managed businesses is the same as for the UK at £60,000. This shows a growth in Wales over the last three years from £50,000 compared to no change/growth in the UK average over the same period.

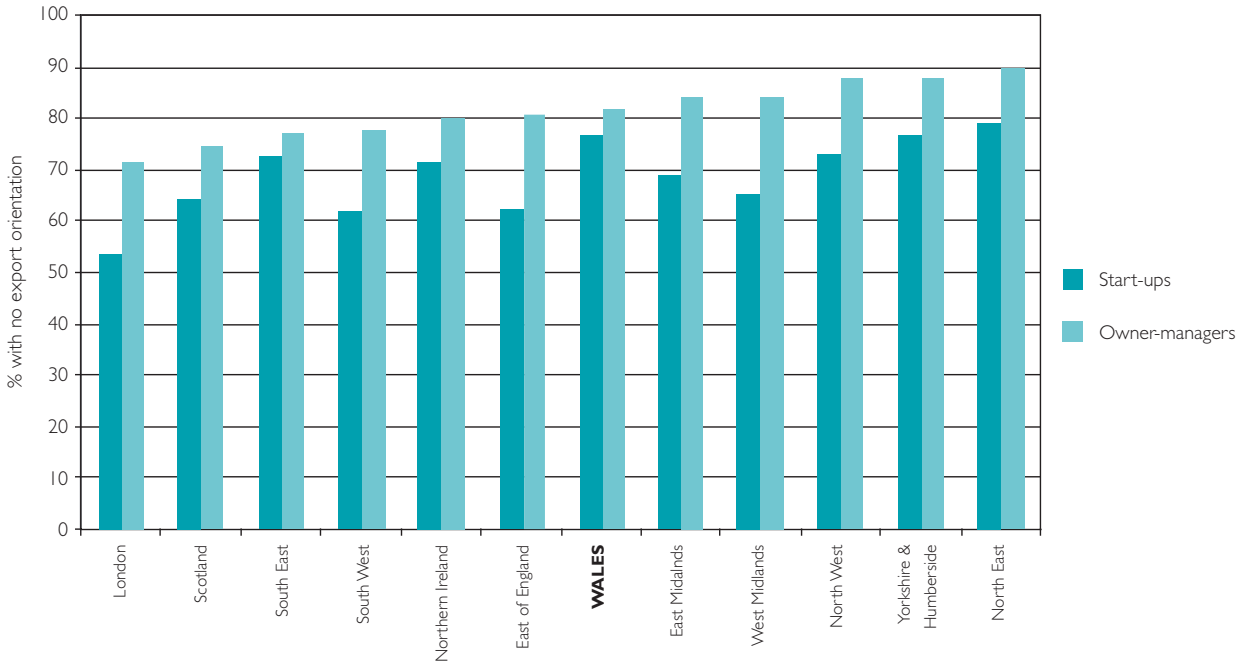
On a global scale, GEM finds that nascent entrepreneurs are more optimistic than owners of new businesses who have the benefit of experience in managing the survival and growth of a new business. More importantly though, the overall picture in all countries within the GEM project, including Wales, is one of small scale ventures dominating and self-employment being far more prevalent than growth-oriented ventures.

Another factor that can influence the degree to which many of the new companies in Wales will have any real impact on the economy is their export orientation. In particular, exports allow countries to specialise in those products or services in which they may have a strong comparative advantage and are a good indicator of the capacity of a nation to increase national wealth. The type of firm that exports is also more competitive in its approach to business, especially as exports widen its customer base and increase sales revenue, establishes geographic market diversity and lengthens the life-cycle of a product or service that has already matured in the home market.

Figure 4.9 indicates that around 80 per cent of the start-ups and new firms in Wales have no degree of exports. Wales is quite similar to the other regions of the UK in terms of owner-managers, but falls behind many other regions in terms of the export orientation of its start-up companies. This is an area where more emphasis may be needed in the support given to certain types of start-ups, perhaps boosting the knowledge of exporting know-how within the range of training and advice services in Wales. Clearly, however, the degree to which 'exporting' per se is possible is largely determined by both the nature of start-up in a particular sector and the ambitions of the entrepreneur. Creating more new and growing businesses that see their market as more than their immediate locality must be a primary objective of business support services.

[5] Figures subject to rounding

Figure 4.9: Companies with no Export Orientation, 2004: by UK Region



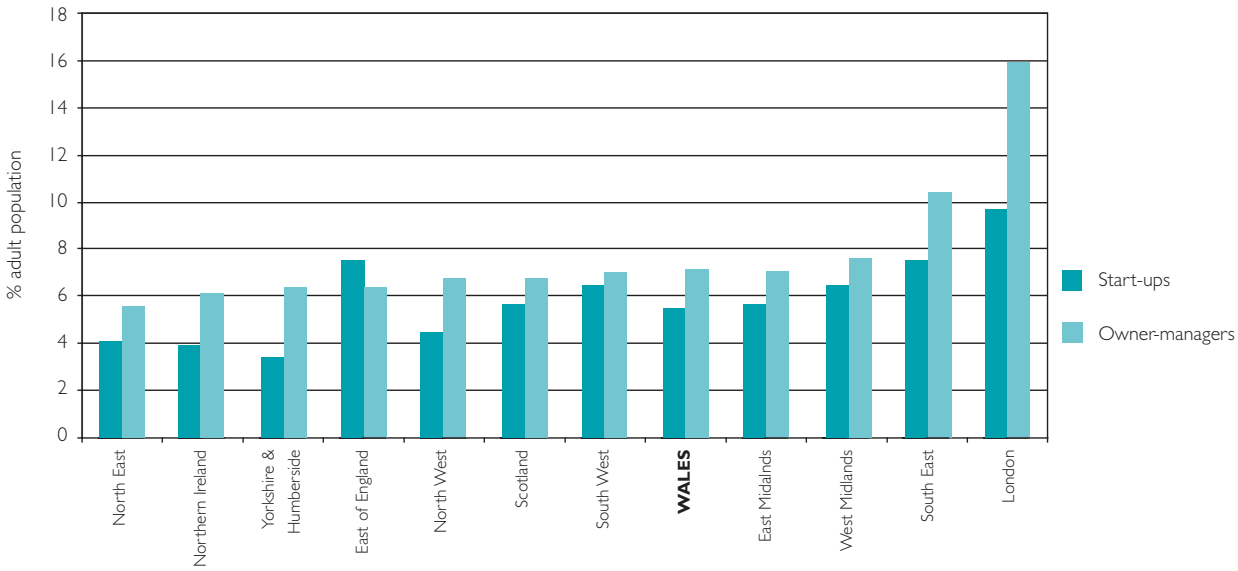
CHAPTER 5: ENTREPRENEURIAL ATTITUDES

5.1 Introduction

The GEM survey asks a series of questions which attempt to measure the attitudes of the population towards starting a business and many related features of entrepreneurship. The analysis that follows is a pictorial and descriptive narrative that describes the regional data we have for the GEM UK project. Some basic cross-tabulations and correlations are presented, but much care is needed in interpreting these as providing any kind of strict causal link to entrepreneurship. Attitudes and cultures take many years to shape in any country or region and what follows is not meant to be prescriptive.

Figure 5.1 shows the percentage of people in each UK region expecting to start a business in the next three years, comparing responses in 2003 and 2004. In Wales the figure is 7.2 per cent for 2004, up from 5.5 per cent in 2003. The highest ranked region is London, where 15.9 per cent expect to start a business in the next three years, with the lowest region in 2004 being Northern Ireland with 6.1 per cent. All regions except the East Midlands and East of England show a rise between 2003 and 2004.

Figure 5.1: % Respondents Expecting to Start-up a Business in the Next Three Years, 2003, 2004: by UK Region



5.2 Entrepreneurial Attitudes in Wales

The attitudes towards entrepreneurship in Wales and the UK are set out in Table 5.1. The initial four questions are primarily a gauge of an individual's assessment of their own capacity to start a business. The first question relates in part to the research data on networks of entrepreneurs – knowing an entrepreneur can provide a role model to follow if, of course, the relationship with the entrepreneur is positive. In the second question, the ability to recognise and then exploit opportunities is at the heart of a dynamic economy. Thirdly, having the skills to actually start a firm, linked with the fourth element of not fearing failure, is crucial. In general, the figures for Wales do not suggest any great difference from the UK averages. Fear of failure is higher in Wales, but the difference is not statistically significant.

Table 5.1: Attitudes towards Entrepreneurship in Wales and the UK[6]

	WALES (%)	UK (%)
I personally know an entrepreneur	24.5	27.6
There are good start-up opportunities	35.6	35.9
I have the skills to start a business	49.6	51.7
Fear of failure would prevent me from starting a business	35.7	32.9
Setting up a business is a good career choice	52.2	54.2
Entrepreneurs have a high status	74.5	71.3
There is good media coverage of entrepreneurship	60.1	55.4

The next three questions relate to the cultural environment within which entrepreneurship exists in the economy. Wales again is not really different to the UK, although there is more media coverage of entrepreneurship, and the status of entrepreneurs is higher than the UK average.

Table 5.2 compares these seven features of entrepreneurship by UK region. Here there are some noticeable differences, especially between the northern and southern regions grouped together. People in Wales are around 5 percentage points less likely to know an entrepreneur than their counterparts in London and the East of England.

Regions in the 'south' tend to display less 'fear of failure' associated with preventing individuals from starting a business, whilst regions in the 'north' (including Scotland and Northern Ireland) exhibit a far higher level.

Wales ranks first of all the UK regions in terms of good media coverage of entrepreneurship which is perhaps testament to the many funded campaigns of the Entrepreneurship Action Plan and associated publicity. Recent high profile television programmes such as Dragon's Den and The Apprentice, although not captured by this data, are likely to raise this level across the UK in 2005.

Table 5.2: Attitudes towards Entrepreneurship: UK Regions Compared

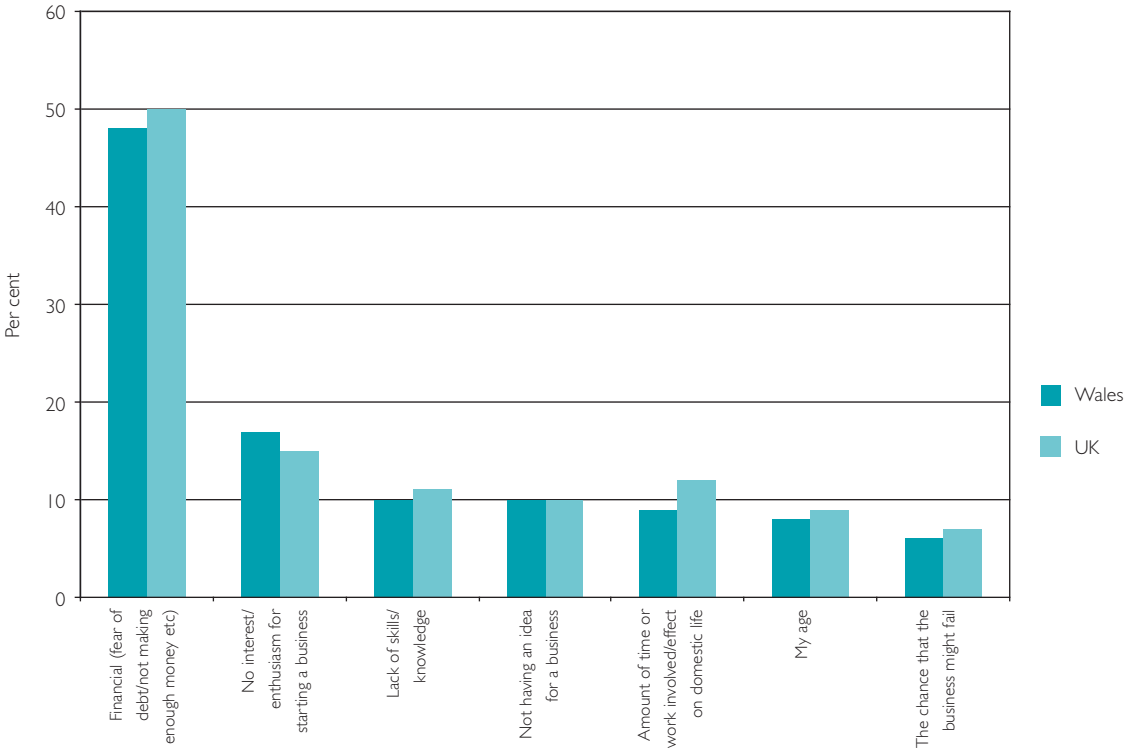
	Know entre-preneur	Good start-up opps	Have skills	Fear of Failure	Entre is good career	Entre has high status	Media coverage good
East Midlands	27.9	37.4	49.9	34.4	52.3	73.0	54.0
East of England	29.9	37.1	52.4	34.4	53.4	73.4	56.5
London	29.2	35.3	56.7	33.6	57.4	71.4	54.3
North East	21.3	29.0	43.1	35.2	53.3	72.6	59.2
North West	20.8	36.5	47.5	36.1	56.1	72.7	56.5
Northern Ireland	25.3	34.5	43.7	43.0	56.8	77.0	58.6
Scotland	29.0	36.5	49.7	37.1	52.2	74.5	58.5
South East	28.3	38.5	49.7	31.6	55.7	71.4	55.4
South West	27.3	33.9	48.7	30.0	54.0	66.5	53.8
Wales	**24.5**	**35.6**	**49.6**	**35.7**	**52.2**	**74.5**	**60.1**
West Midlands	28.6	34.9	51.9	33.4	49.4	69.6	52.9
Yorkshire & Humberside	21.9	35.9	46.9	33.6	57.5	71.9	56.1

5.3 Entrepreneurship: Barriers and Motivations

The GEM survey in 2004 asked questions for the first time about both the perceived barriers to and motivations for entrepreneurship. This is a crucial area for investigation when designing policies and programmes and knowledge of these factors should be of great use to the Welsh Assembly Government in the future. Figure 5.2 compares the perceived barriers to entrepreneurship for Wales and the UK. The questions were asked of all interviewees in the survey who answered 'no' to the questions about either recently setting up a business or considering as future option.

[6] The figures reported in this table differ slightly from those reported in the main GEM UK report. This is due to the application of a new weighting framework which has been refined since the analysis for that report was undertaken.

Figure 5.2: Perceived Barriers to Entrepreneurship in Wales and the UK, 2004

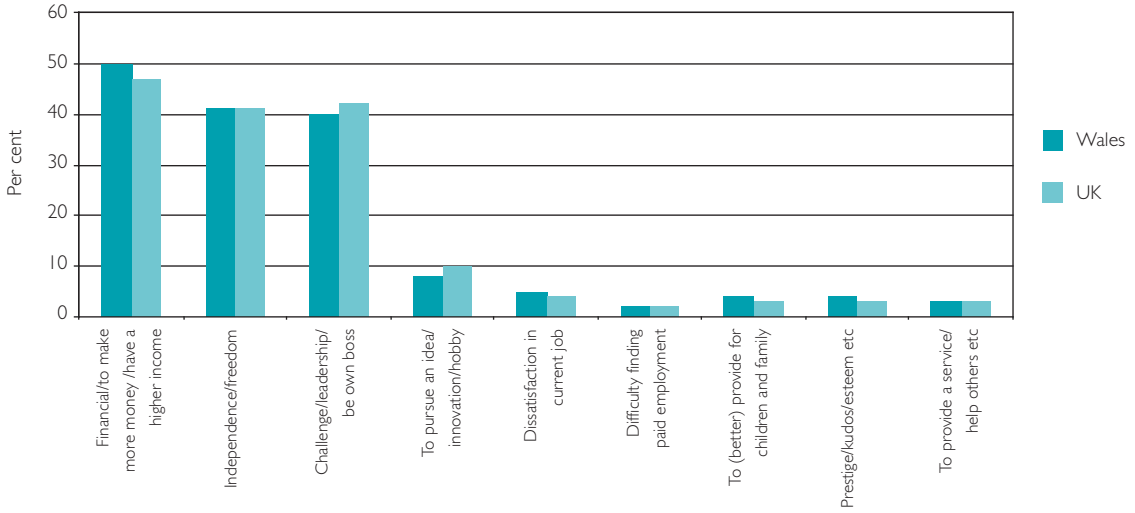


By far the most important barrier was that of fear of debt. In Wales, 48 per cent of respondents identified this factor compared to 50 per cent in the UK as a whole. The fear of debt is very much a cultural phenomenon, but can be addressed over time with the correct recipe of support and education. Often, it is ignorance about available support or the nuances of different company structures which prevents people starting firms. However, there is clearly a deep-seated issue here that is worthy of far greater investigation.

The second biggest barrier in Wales is lack of interest or enthusiasm, with 17 per cent of respondents mentioning this factor. This followed by lack of skills, not having an idea for a business and the amount of time or work involved. Each of these factors was mentioned by around 10 per cent of people. Only 8 per cent of respondents in Wales mentioned their age as a barrier and overall the pattern of responses is almost identical to that in the UK as a whole.

Table 5.3 summarises the main motivations for starting a business. The most common factor was that of making money, with 50 per cent of Welsh respondents quoting this as compared to 47 per cent in the UK as a whole. The next most popular factors were those of independence and the challenge of doing something new. 'Being own boss' was a primary motivating factor for 40 per cent of the interviewees in Wales.

Figure 5.3: Main Motivations for Starting a Business in Wales and the UK, 2004



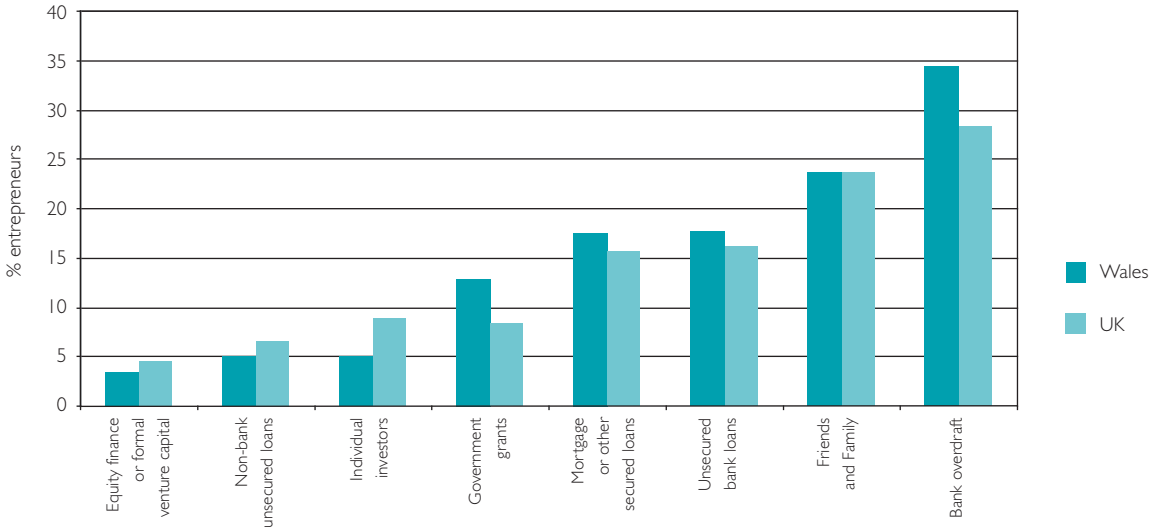
CHAPTER 6 ACCESS TO FINANCE

The Welsh Assembly Government has recognised that access to finance to start-ups and small firms is a key instrument in developing entrepreneurial activity by establishing Finance Wales. This 'development bank' provides funds (loan, mezzanine and equity) for Welsh SMEs, ranging from micro-loans at £1,000 to equity investments of up to and beyond £750,000. It also runs Xenos, the only business angel network in Wales. Given this, the research being undertaken by GEM in examining the finance and informal investment market within Wales will help to understand the environment for the funding of enterprise, and the adult population survey includes a number of detailed questions which focus on the financing of new business ventures.

Finance of new firms is seen as a key issue in developing a more entrepreneurial economy. Therefore, a greater understanding of the patterns of funding required by nascent entrepreneurs is important not only in informing policy, but also in assessing how support can be focused to improve the performance of new business ventures. As Figure 6.1 shows, the largest source of start-up finance in Wales is a bank overdraft, followed by friends and family and unsecured bank loans. This reflects the pattern for the rest of the UK and data from other studies[7]. However, there is a greater reliance within Wales on bank overdrafts than for similar start-ups within the rest of the UK (34.5 per cent vs 28.4 per cent). This suggests that nascent entrepreneurs may not be aware of other sources of funding for start-ups and may be relying on the simplest, but probably most expensive, form of financial support. There are also more start-ups who are securing the finance for their businesses against property through mortgages, which has social implications if the businesses fail. It is possible that this may also be linked to a high level of 'fear of failure' as a reason for not starting a business in Wales.

It is also worth noting the relative importance of government grants to start-ups within Wales, with 12.8 per cent of new starts accessing support from the public sector as compared to only 8.4 per cent for the UK. These findings will undoubtedly add to the debate surrounding the 'grant-dependent' mentality that may be holding back the expansion of Welsh businesses and warrants further investigation. The relatively low number of equity and individual investments within new business in Wales as compared to the rest of the UK also indicates that Welsh entrepreneurs are relying on traditional sources of funding for their businesses, including non-repayable grants in the form of AIG and third tier funding from local government.

Figure 6.1: Sources of Finance for Start-ups in Wales and the UK, 2004



The main reasons both in Wales and the UK for entrepreneurs failing in accessing finance for their business were the nature of the business, cost of finance to high and business being too small (Figure 6.2). Interestingly, the fear of debt was rated as a higher factor in Wales than for the rest of the UK, and may link into the more general cultural issues discussed in Chapter 5.

There was also a greater unwillingness to share ownership of the business, which may link in with the low level of equity financing illustrated in Figure 6.1. The entrepreneurs in Wales did not consider factors such a weak management team, inadequate business plan or lack of investor-readiness to be key issues. However, this may well be due to a partial 'denial mentality' amongst some entrepreneurs as to the reasons why their businesses did not get actual funding at start-up. A larger sample size in 2005 will give allow for a sharper focus on this question.

[7] Bank of England (2004) Finance fort Small Firms – an eleventh report, Bank of England, London.

Figure 6.2: Reasons for Failing to Access Start-up Funding, Wales and UK, 2004

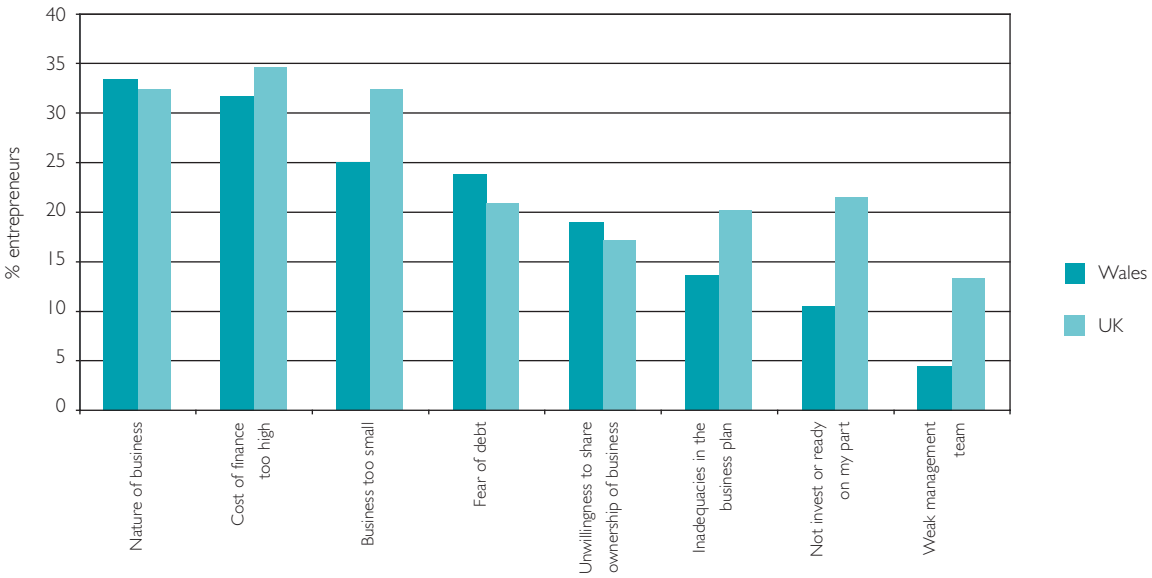
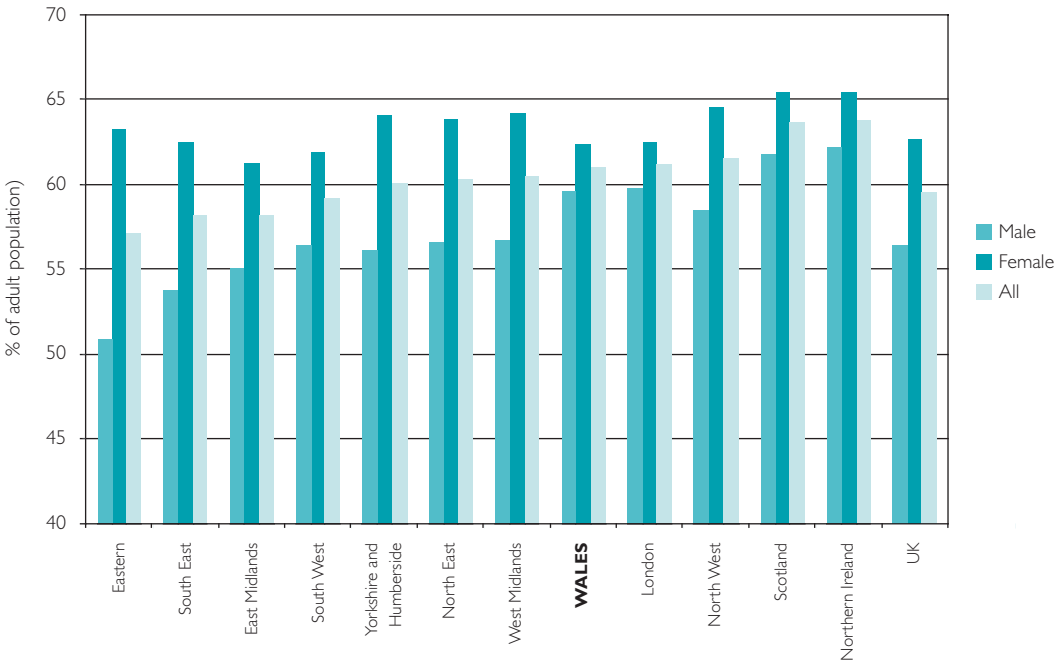


Figure 6.3 analyses the percentage of adult population in the UK (by region) that would not start a business due to lack of external funding (excluding family and friends). It shows that 62 per cent of the Welsh population would not start a business without external funds (as compared to 60 per cent in the UK) and demonstrates the importance of access to adequate and suitable finance as a key factor in encouraging a more entrepreneurial economy. Perhaps the most striking finding is that a higher proportion of women than men in all regions of the UK would perceive access to external finance as a barrier to establishing a nascent enterprise. This suggests that more work needs to be done (especially in regions such as East of England, the South East and the East Midlands) in overcoming some of the traditional barriers faced by women in considering entrepreneurial activity.

Figure 6.3: Percentage of the Adult Population Who Would Not Start a Business Due to Lack of External Funding: by Gender by UK Region



The proportion of the post-18 adult population involved in informal investment activities (i.e. have provided funds for business start-ups other than their own) is shown in Figure 6.4. This indicates that in 2004, Wales had the highest level of 'business angel' activity of any region of the UK, with 1.5 per cent of the population investing in other new ventures[8] (or approximately 34,000 adults). The lowest level of angel activity was to be found in the North West of England (which also has the lowest TEA for 2004). However, whilst Wales has the best informal investment rate in the UK, this still places the country in the bottom quartile of global nations, with only Netherlands, Portugal, Japan, Croatia and Brazil having a worse level of business angel activity. The G7 country with the highest business angel prevalence rate is the USA (4.7%), although some small nations such as New Zealand have rates as high as 5.0 per cent.

Figure 6.4: Business Angel Investors, 2004: by UK Region

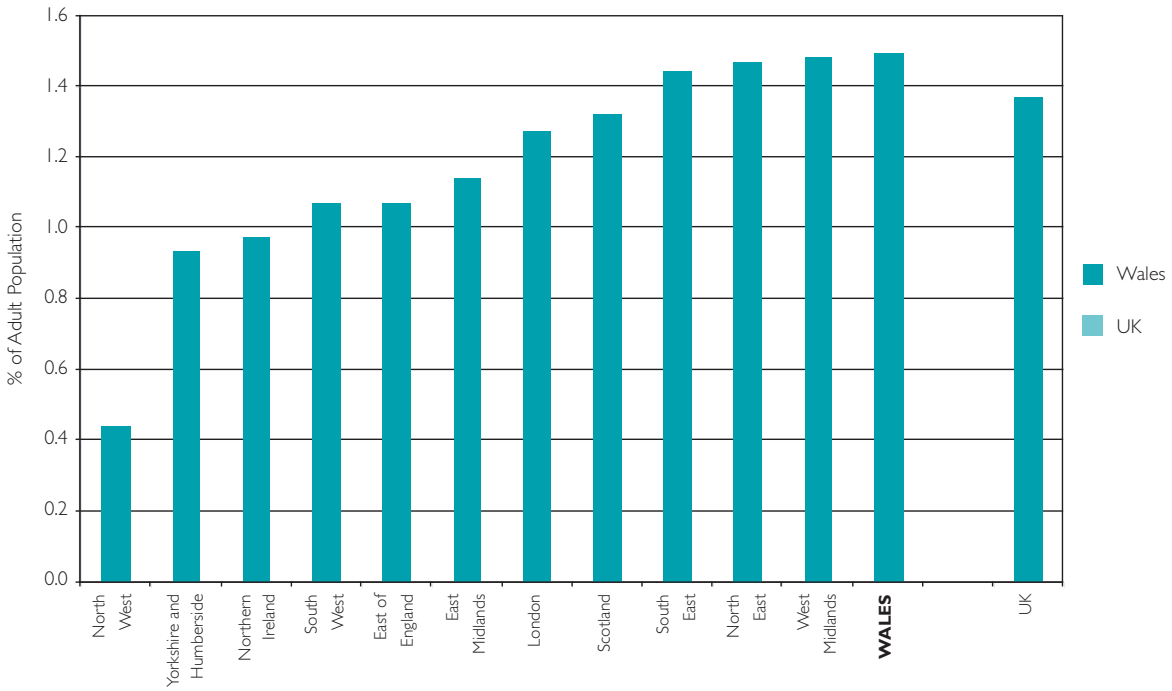


Figure 6.5: Median Amount Invested by Business Angels, 2004: by UK Region

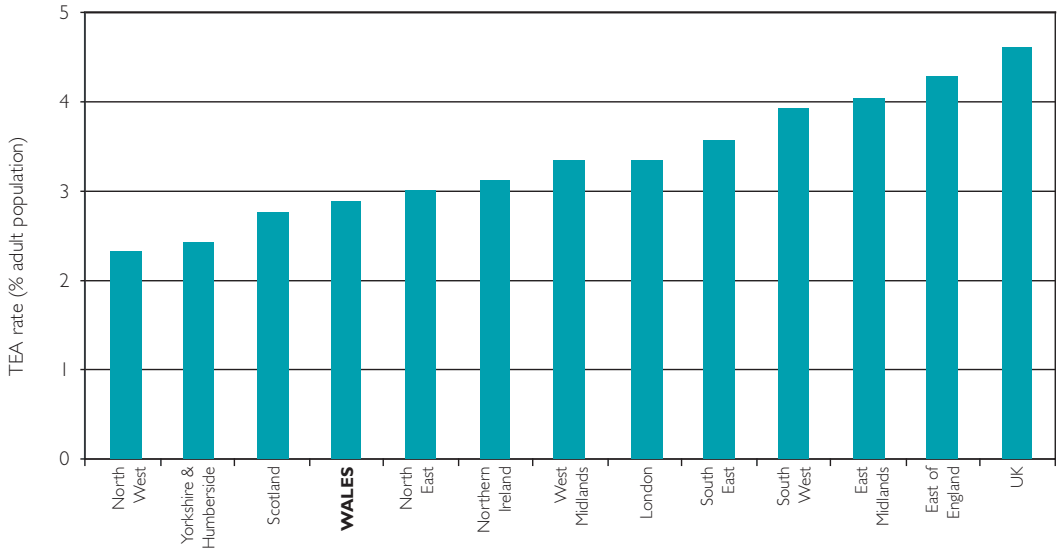


Figure 6.5 presents the median amount of finance provided by business angels. It demonstrates that whilst activity amongst the population in Wales is highest of any region in the UK, the amount invested per business is the lowest at £3,440 per firm. This contrasts with London, where the median amount invested by business angels is over eight times higher at £28,930. The median investment for the UK is £10,000. This finding probably reflects local conditions within the more prosperous parts of the UK, where a higher amount of overall funding is required to establish a new business. However, it also demonstrates that informal investors within Wales are risking relatively small amounts of money to support the development of new firms. Again, the reasons behind this will be examined in greater detail within the expanded GEM project in 2005.

[7] Due to a new weighting framework, the figure reported here of 1.5 per cent is slightly different to that reported within the GEM UK report.

CHAPTER 7 REGIONAL DIFFERENCES IN ENTREPRENEURSHIP WITHIN WALES

This year, the sample in Wales for the GEM research study was stratified by local authority population estimate for 2003. This enabled the project, for the first time, to undertake a more detailed sub-regional analysis of entrepreneurial activity in Wales. Given the small samples, more detailed analysis according to standard key factors such as gender, age, education and income will be carried out in 2005, when a larger sample will enable the project to generate statistically significant results at a sub-regional level. It will also enable the project to track the development of entrepreneurial activity during the next three years according to different economic areas within Wales. This section will therefore concentrate on two key areas of the GEM project by sub-regional areas, namely TEA and entrepreneurial attitudes.

The first sub-region is defined according to European Commission Structural Funding areas, which uses the Nomenclature of Units for Territorial Statistics (NUTS) to provide a single uniform breakdown for the production of regional statistics for the European Union. There are three levels of NUTS in the UK:

- NUTS1: Government Office Regions and Scotland, Wales and Northern Ireland.
- NUTS2: 37 areas - sometimes referred to as sub-regions.
- NUTS3: 133 areas - generally groups of unitary authorities or districts, also known as local areas.

Within Wales, there are two NUTS2 sub-regions, namely West Wales and the Valleys and East Wales. The former currently qualifies for Objective 1 structural funding to support the poorest regions in Europe (with an average GDP/head of less than 75% of the EU average). The counties that constitute each NUTS2 sub region are as follows:

- West Wales and the Valleys – Blaenau Gwent, Bridgend, Caerphilly, Carmarthenshire, Ceredigion, Conwy, Denbighshire, Gwynedd, Merthyr Tydfil, Neath Port Talbot, Pembrokeshire, Rhondda Cynon Taff, Swansea, Torfaen, Ynys Môn
- East Wales – Cardiff, Flintshire, Monmouthshire, Powys, Newport, Vale of Glamorgan Wrexham

Most statistics in Wales are now classified according to these two regions therefore the new data from GEM will be comparable with other statistical results on the two sub-regions.

The second sub-region to be analysed is based on the Welsh Assembly Government's economic regions, namely North Wales, Mid Wales, South West Wales and South East Wales. This enables government policy to be addressed at a specific sub-regional level and allows public and private bodies, through the creation of specific sub-regional economic fora, to work closely to develop specific development strategies. The four economic regions of Wales are as follows:

- North Wales - Conwy, Denbighshire, Flintshire, Gwynedd, Wrexham, Ynys Mon
- Mid-Wales – Powys, Ceredigion
- South West Wales - Carmarthenshire, Neath Port Talbot, Pembrokeshire and Swansea
- South East Wales - Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport Rhondda Cynon Taff, Torfaen, Vale of Glamorgan

As the GEM survey is based on postcode data, it is possible to group respondents into different geographical areas. This year the sample sizes are quite small to analyse on a local authority basis, but it is possible to construct a more statistically robust set of figures for a split based on the two European NUTS 2 areas and the four WDA regions.

As figure 7.1 shows, the Mid-Wales region has, at 6.8 per cent, a higher TEA region in 2004 than the UK average. It is followed by North Wales (6.3 per cent) and South West Wales (5.0 per cent). The economic region with the lowest TEA rate for entrepreneurial activity is South East Wales. This result reflects the most recent VAT data for 2003, which showed that Mid-Wales had the highest rate of VAT registrations at 39 start-ups per 10,000 head of the adult population whilst South East Wales had the lowest at 27.5 start-ups.

The difference in results can be explained by the traditionally high incidences of self-employment within rural areas as compared to the work environment within much of South East Wales, which has a strong labour market still dominated by large companies. The entrepreneurship rate within West Wales and the Valleys is higher than for East Wales.

Figure 7.1: Total Entrepreneurial Activity by Welsh Economic Region, 2004

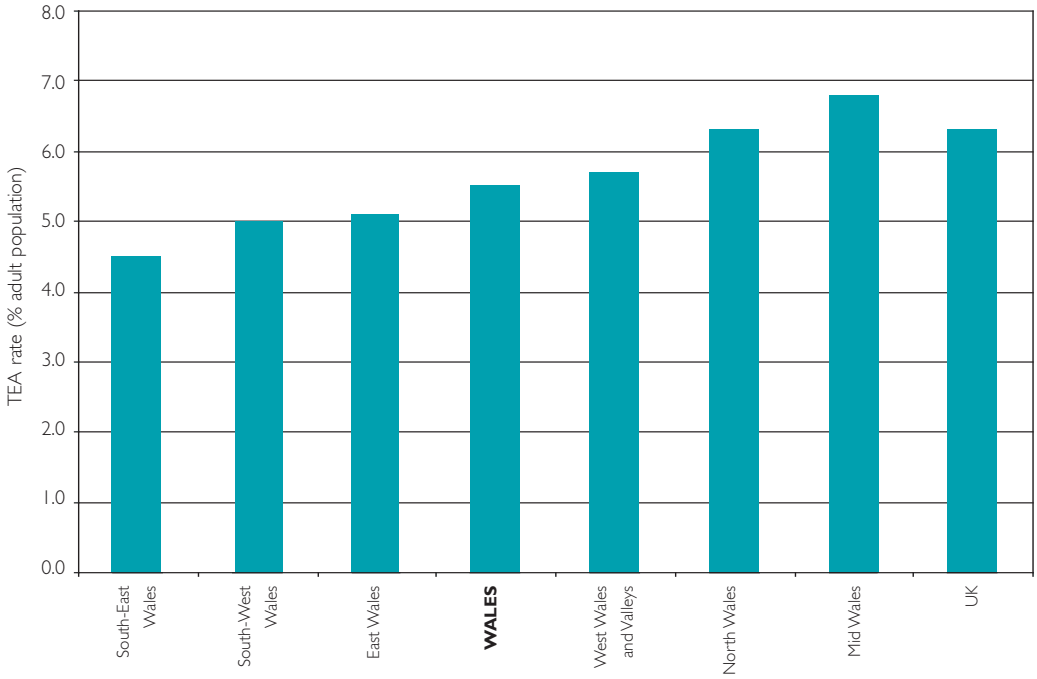


Table 7.1: Attitudes towards Entrepreneurship by Sub-Region

	WDA North	WDA Mid	WDA South-West	WDA South-East	West Wales & the Valleys	East Wales	Wales	UK
I personally know an entrepreneur	27.4	23.7	29.4	21.9	23.0	28.1	24.5	27.6
There are good start-up opportunities	36.4	37.1	37.1	34.6	35.5	36.0	35.6	35.9
I have the skills to start a business	51.8	53.0	53.7	45.7	48.7	52.0	49.6	51.7
Fear of failure would prevent me from starting a business	35.9	37.9	47.0	32.1	36.3	34.3	35.7	32.9
Setting up a business is a good career choice	50.1	55.6	44.3	52.9	53.0	50.0	52.2	54.2
Entrepreneurs have a high status	74.3	76.4	75.8	74.0	73.2	78.1	74.5	71.3
There is good media coverage of entrepreneurship	57.1	59.1	67.3	62.0	59.5	61.9	60.1	55.4
Total Entrepreneurial Activity (TEA)	**6.2**	**7.0**	**4.7**	**4.6**	**5.7**	**5.0**	**5.5**	**6.3**

As Table 7.1 shows, the profile of attitudes is very varied and demonstrates the existence of sub-regional sets of values, beliefs and behaviours across Wales. Importantly, it would appear that the relatively high levels of actual new business activity in the Mid Wales sub-region are associated with very positive attitudes towards entrepreneurship. Individuals here are much more likely to report that they have the requisite knowledge and skills to start a business and regard entrepreneurs as having a high status in society and that setting up your own business is a good career choice. Other points to note are the relatively low levels of 'fear of failure' reported in the South-East Wales sub-region and the above average number of respondents acknowledging the good levels of media coverage highlighted in the Mid Wales and South-West sub-regions.

APPENDIX A: TECHNICAL NOTE

GEM UK 2004 Adult Population Survey

1. Sample Size

The GEM UK survey was carried out by telephone during the Spring and early Summer of 2004 and achieved responses from 24,000 individuals across all regions of the UK. In Wales responses were obtained from almost 2,000 individuals. The minimum sample size in the other UK regions was 1,000 adults. The sample size in Scotland was 2,000 and in Northern Ireland it was 5,000.

The sample was weighted to reflect the latest age and gender proportions across the UK regions. The unweighted and weighted data is presented in the table below.

Table A1: GEM Wales Sample 2004

	Unweighted Responses	Weighted
Gender		
Males	839	555
Females	1159	591
Age		
Less than 18	28	-
18-24 years	126	133
25-34 years	322	200
35-44 years	412	232
45-54 years	383	212
55-64 years	402	167
65+ years	325	202

2. Statistical Reliability

One of the key issues concerning the GEM Global and UK projects is the robustness of the international and regional comparisons. The accuracy of all survey results depends on the size of the sample. Unless the sample forms a large proportion of the overall population, (which clearly would not be the case with this survey) it is the sample size which counts, not its proportion of the total. Thus, to minimise standard errors in cases where different areas or other segments of the sample are to be compared, it was considered preferable to have equal samples in those areas or segments – i.e., region, gender and age.

Although the 'skew' of responses affects error margins, its impact is much smaller than that of sample size. The improvement in robustness gained by increments to sample size starts to drop off significantly as the sample size increases. Thus, in considering sample size, it is not so much the overall sample size that is at issue; – it is the size of sub-samples which is critical, and then the capacity of these sub-samples for further disaggregation.

Generally, therefore, larger samples give greater capacity for sub-sample analysis. Equally, it is better to have larger sub-samples, where possible, to ensure that robustness is not lost.

In terms of the reliability of the GEM UK 2004 results it is important to report the confidence levels for the Wales Total Entrepreneurial Activity (TEA) Index. The overall TEA for Wales in 2004 was 5.5 per cent of the adult population. Therefore, with a weighted samples size of 1,100 the following confidence limits at the 95% level can be estimated:

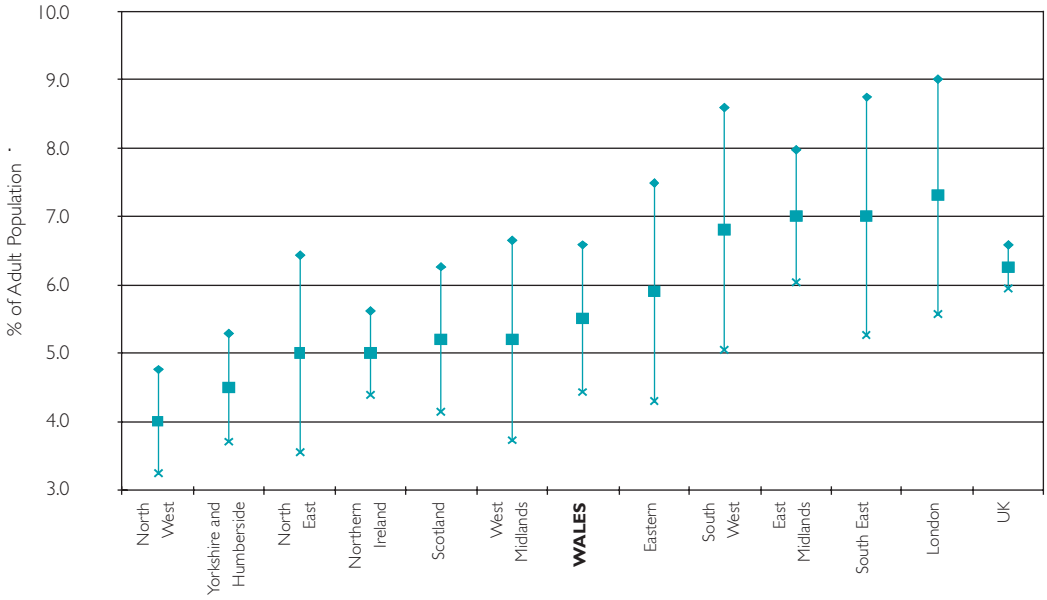
$$5.5 \pm 1.96 \times (\text{Std. Err.})$$

$$5.5 \pm 1.96 \times 0.744$$

$$5.5 \pm 1.5$$

Therefore, in the context of the UK regional comparisons the 95% confidence limits for the Wales TEA can be said to lie in the range 4.0 to 7.0. The sample size for the TEA index and standard errors for each of the 12 UK regions are set out in Figure A1.

Figure A1: Confidence Limits for Regional TEA in the UK Regions



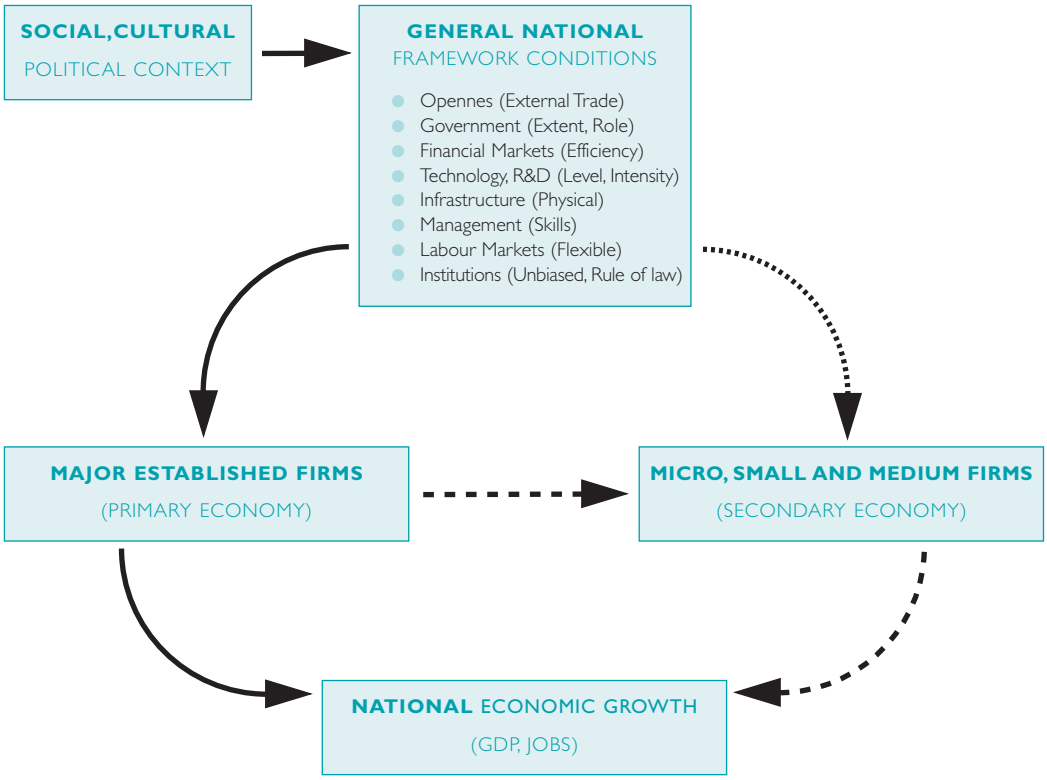
APPENDIX B

The GEM Model

At the heart of the GEM project is the development of an understanding of the relationship between entrepreneurship and economic growth. Previous approaches examining economic growth (including GDP and employment growth) have tended to focus on the contribution of large established firms rather than smaller firms, assuming that the former, rather than the latter, are the engines of prosperity in modern economies.

These conventional models – such as the Global Competitiveness Report – also tend to concentrate on examining the relationship between General National Framework Conditions (external trade; role of government; efficiency of financial markets; level and intensity of R&D; physical infrastructure; management skills; flexible labour markets and legal institutions) and the impact these will have on the performance of larger businesses. Figure B1 illustrates this conventional approach to the process leading to economic growth via larger businesses.

Figure B1: Role of larger established firms and economic growth



Such a model is conspicuous for its absence of entrepreneurship as a driver for economic growth. The role played by the small-to-medium sized firm sector is relegated to that of a supporting actor, involved in the supply of goods and services to larger established businesses. This is despite empirical evidence demonstrating that large firm activity can explain only a proportion of the variation in economic growth within a nation.

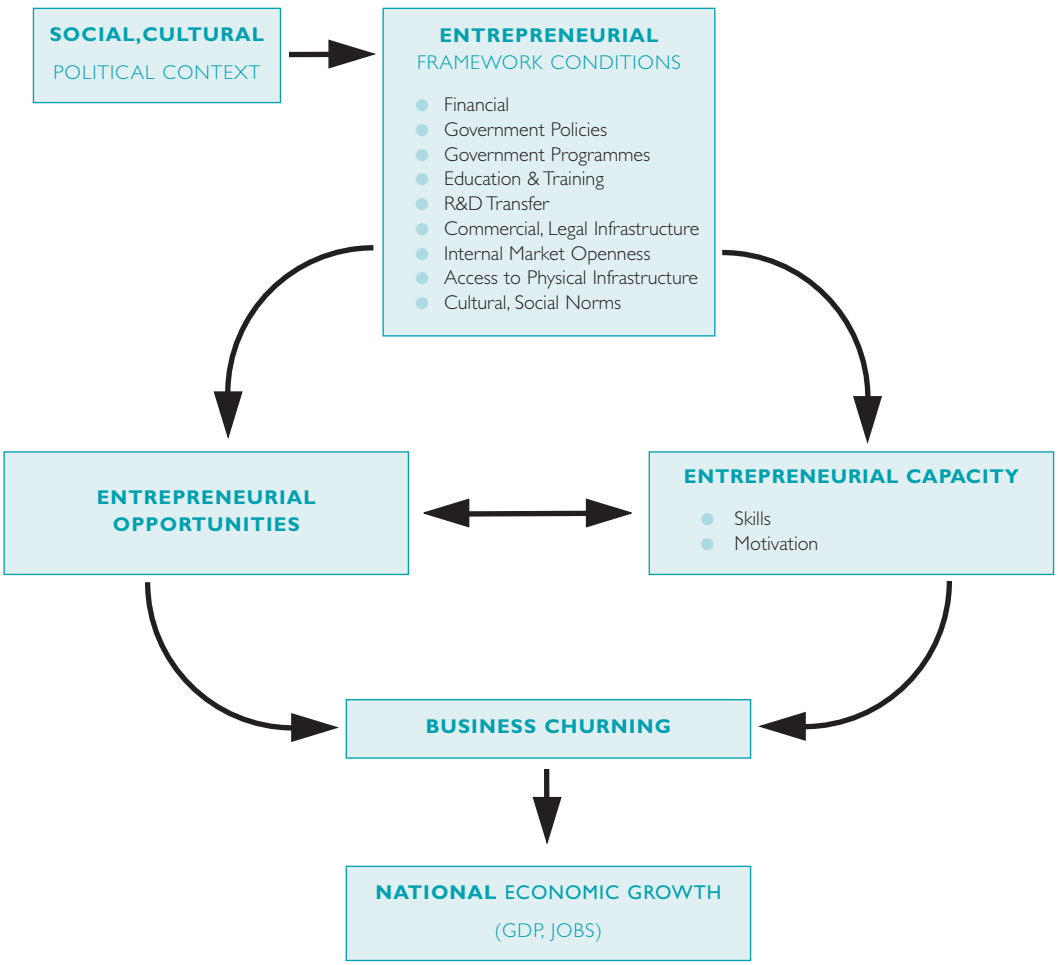
As Figure B2 demonstrates, entrepreneurship can have a direct impact on national economic growth. This model includes a large number of factors ignored in the conventional economic models. Firstly, it can be recognised that entrepreneurial activity is shaped by a distinct set of factors – the Entrepreneurial Framework Conditions. These include:

- The availability of financial resources for new and growing ventures
- Government policies and programmes designed to support new and growing ventures
- The level of entrepreneurship education and training for practising entrepreneurs
- Technology transfer
- Availability of commercial and professional services
- Ease of access to new markets
- Access to physical infrastructure
- Cultural and social norms that affect initiative and self-sufficiency

Secondly, the level of entrepreneurial activity is directly related to the ability of individuals to recognise that **entrepreneurial opportunities** are available and, more importantly, that those individuals have the **entrepreneurial capacity** – motivation and skills - to exploit them.

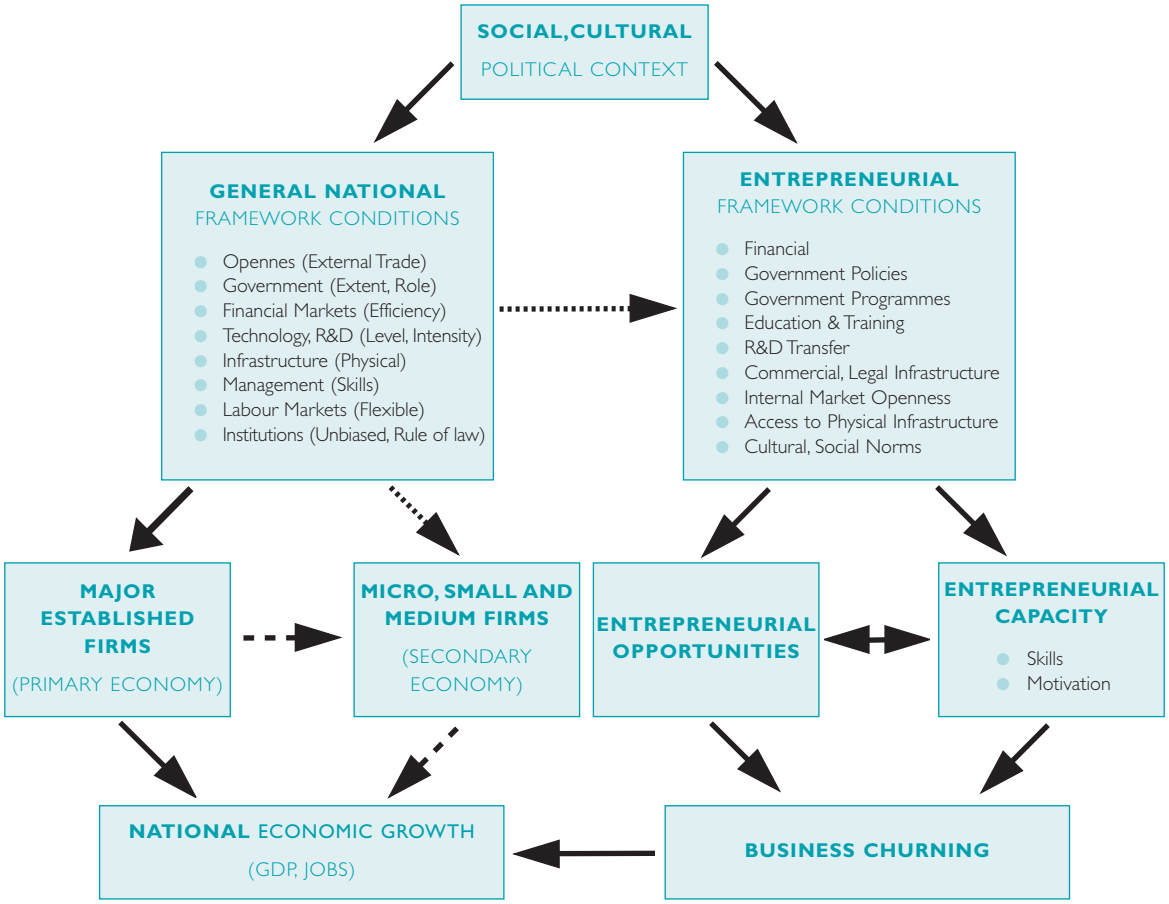
It is the interaction between entrepreneurial opportunity and capacity that leads directly to the creation of start-ups within an economy. However, as an economy creates new births and subsequent jobs, it is likely that there will also be a corresponding increase in firm deaths and job destruction. The intensity of this process, known as **business churning**, contributes to greater economic growth.

Figure B2: The Entrepreneurial process and economic growth



Clearly, neither the conventional nor the entrepreneurial model gives a full understanding of national economic growth. However, by combining both approaches, we can determine the influence of both large firms and new entrepreneurial businesses on the development of economies, although the mix or contribution made by each model will inevitably vary by country. As Figure B3 demonstrates, this new model also indicates that existing firms can be a significant source of start-ups. More importantly, the context in which an entrepreneurial sector can operate is made explicit. This model will help achieve the primary objective of the GEM model, namely an understanding of how the entrepreneurial process operates and the contribution it makes to economic growth.

Figure B3: The GEM Model



APPENDIX C

GEM 2004 CO-ORDINATION TEAM, NATIONAL TEAMS AND SPONSORS

Unit	Location	Members	Financial Sponsor
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GEM Project Co-ordinator	University of Lausanne	Pia Arenius	GEM Global Consortium Executive Transition Committee
GEM Co-ordination Team	Babson College	William D. Bygrave Marcia Cole	Babson College
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		Stephen Hunt	David Potter Foundation Fellow
		Neils Bosma Erkko Autio	Francis Finlay Foundation Fellow
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For further details please contact

Daniel Jones
Director of Strategy & Communications
Entrepreneurship Action Plan
telephone - 029 2082 8923
fax - 029 2082 8775
email - daniel.jones@wda.co.uk

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