THE ENTREPRENEURIAL CHALLENGE

- A COMPARATIVE STUDY OF ENTREPRENEURIAL DYNAMICS IN CHINA, EUROPE AND THE US

GEM OPERATIONAL DEFINITIONS:

Total early-stage entrepreneurial activity (TEA)

Percentage of individuals aged 18-64 who are either a nascent entrepreneur or owner-manager of a new business.

Nascent entrepreneurship rate

Percentage of individuals aged 18-64 who are currently a nascent entrepreneur, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages, or any other payments to the owners for more than three months.

New business ownership rate

Percentage of individuals aged 18-64 who are currently an owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than three months, but not more than 42 months.

Characteristics of early-stage entrepreneurial activity

Opportunity-based early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who claim to be purely or partly driven by opportunity as opposed to finding no other option for work. This includes taking advantage of a business opportunity or having a job but seeking better opportunity.

Necessity-based early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who claim to be driven by necessity (having no better choice for work) as opposed to opportunity.

Improvement-driven opportunity early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who (1) claim to be driven by opportunity as opposed to finding no other option for work; and (2) who indicate that the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income.

High-growth expectation early-stage entrepreneurial activity: relative prevalence

Percentage of early-stage entrepreneurs (as defined above) who expect to employ at least 20 people five years from now.

New product-market-oriented early-stage entrepreneurial activity: relative prevalence

Percentage of early-stage entrepreneurs (as defined above) who report that their product or service is new to at least some customers and that not many businesses offer the same product or service.

International-oriented early-stage entrepreneurial activity: relative prevalence

Percentage of early-stage entrepreneurs (as defined above) who report that at least 25 percent of their customers are from foreign countries.

Established business ownership rate

Percentage of individuals aged 18-64 who are currently an owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

Business discontinuation rate

Percentage of individuals aged 18-64 who, in the past 12 months, have discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.
Note: this is NOT a measure of business failure rates.

Individual attributes of a potential entrepreneur

Perceived opportunities

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who see good opportunities to start a business in the area where they live.

Perceived capabilities

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who believe they have the required skills and knowledge to start a business.

Entrepreneurial intentions

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who are latent entrepreneurs and who intend to start a business within three years.

Fear of failure rate

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who report that fear of failure would prevent them from setting up a business.

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The Swedish GEM-team 2016 consists of Pontus Braunerhjelm, Professor Royal Institute of Technology and Research Director Swedish Entrepreneurship Forum, Johan P Larsson, PhD Swedish Entrepreneurship Forum and Jönköping International Business School, Per Thulin, PhD Royal Institute of Technology and Swedish Entrepreneurship Forum and Ylva Skoogberg, Project Manager, Swedish Entrepreneurship Forum.

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GEM

SWEDISH ENTREPRENEURSHIP FORUM

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PREFACE

Swedish Entrepreneurship Forum hereby presents *The Entrepreneurial Challenge – A comparative study of entrepreneurial dynamics in China, Europe and the US*, based on data from the Global Entrepreneurship Monitor (GEM). GEM is the most comprehensive worldwide study on entrepreneurship. Since the first survey, which covered 10 countries and was conducted in 1999, the study has grown to include 181,000 respondents in 62 countries in 2015, representing over 72 percent of the world's population and 90 percent of the world's GDP. The launch of the global report was held at a conference in Boston in February and can be downloaded from the GEM Consortium website, www.gemconsortium.org.

GEM provides an annual and comprehensive picture of of the level, aspirations and attitudes to entrepreneurship among the population, i.e. not only the entrepreneurs themselves. The analysis also draws attention to economic policy conditions for entrepreneurship, growth and innovation. International comparisons are made possible through extensive coordination of methodology and wording of the questionnaires and analyses.

The Entrepreneurial Challenge examines the similarities and differences between the dominating economic regions in terms of level of entrepreneurial activity, entrepreneurs' ambition to grow, internationalise and to innovate, as well as the attitudes towards entrepreneurship. We present the development over time for a large number of variables related to entrepreneurship. In addition, we compare entrepreneurial activity to intrapreneurial efforts undertaken by employees in already existing firms.

Pontus Braunerhjelm (editor), Johan P Larsson, Ylva Skoogberg and Per Thulin have contributed to the current report. As usual, the findings, policy recommendations and the analysis presented in the report represent the views of the authors and is not necessarily shared by Swedish Entrepreneurship Forum. Financial support is gratefully acknowledged from Vinnova, Sweden's innovation agency, and The Confederation of Swedish Enterprise.

Stockholm, June 2016

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QUICK SUMMARY – GEM 2016 IN 120 SECONDS

- Total entrepreneurial activity (TEA) is considerably higher in the US, almost on par with China, despite being a more developed economy (referred to as innovation driven in GEM), and up to three times higher than in most other European countries and country groups.

- The lowest level of TEA is found in the large EU-economies Germany and France, and in those countries most severely affected by the aftermath of the financial crisis in 2007–2009, i.e. Portugal, Italy, Greece and Spain (PIGS-countries).

- TEA decreases with level of development and shifts from necessity- to opportunity-based as countries become richer. The latter refers to a pull-factor where an opportunity is identified that triggers a start-up, whereas necessity-based is a push-factor due to lack of alternative income possibilities.

- In 2012–2015, between 70–90 percent of all entrepreneurship is related to opportunity for the five innovation-driven economies and for three country groups (the Nordic countries, the PIGS-countries and the small EU-countries). Necessity-driven entrepreneurship has, as expected, increased in the PIGS-countries which were particularly hard hit by the economic crisis, but also in the UK and the small EU-countries.

- The earliest stage of entrepreneurship (nascent) is an indication of an experimentally organised economy – a flow of ideas continuously being tested at the market. Here the US dominates as well. With the exception of China, Sweden, being a traditional welfare state that is organised quite differently compared to the US, ranks second.

- The crisis that started in 2008 does not seem to have deprived countries of their informal investors. Instead, it increased in a number of countries between 2008 and 2011 compared to 2004-2007, and, in some cases, continued to increase in 2012–2015.

- Sweden is one of the countries with the largest share of informal investors; in fact, it has a higher share than any of the other innovation-driven countries or country groups, together with the US. Furthermore, China seem to host a large share of early-stage funding individuals.

- Most countries report a gender gap in entrepreneurship where the share of women entrepreneurs is approximately 50 percent compared to males. The UK is the only country that has a trend-wise increase over the period 2004-2015.

- High-growth firms, or gazelles, accounts for a disproportionate share of new employees and consequently important for future growth. Anglo-Saxon countries, together with a few countries from Eastern Europe and Taiwan, are the top performers.

- Germany positions itself at sixth place in terms of hosting a large share of growth-oriented entrepreneurs. Similarly, several of the Nordic countries, including Sweden, have moved up in the ranking of entrepreneurs expecting high-growth. These countries have also undertaken important reforms to enhance flexibility in their respective labour markets.

- In eleven out of 24 countries, at least 50 percent of the entrepreneurs consider their products or services to be new to either all or some of their customers. This suggests a relatively high innovation capacity among European entrepreneurs.

- Smaller countries could be expected to have a larger share of their customers abroad, given the limited size of their domestic markets. However, the picture is quite mixed. Even though a fairly large number of small countries are among those most internationalised, small PIGS-countries have a low degree of internationalisation, as do the Nordic countries.

- The US is among the countries having the most internationalised entrepreneurs. In general, serving

international markets signals both high ambitions and international competitiveness of a country's early stage entrepreneurs.

- In most of the innovation-driven economies, there seem to be an increase in entrepreneurial intentions (to start a firm within a three year period) between 2004 and 2015, Sweden being the exception. France and the US are shown to have the highest levels, followed by the PIGS-countries, the small EU-countries, Sweden and the UK, whereas Germany and the Nordic countries trail behind.

- China's trend is distinctively negative, which likely reflects that much of the previous entrepreneurship was necessity-based and a business-cycle effect.

- A remarkable share, 70 percent, of Swedes claim that they can identify good business opportunities. In China and France approximately 30 percent claim that they can identify profitable business opportunities. In the PIGS-countries the share has declined 2004–2007.

- A much smaller share, about 35–40 percent of the adult population, believes that they have the ability to set up and manage a firm. The exceptions are the US and the UK where the share is higher.

- Hence, there seems to be a Nordic paradox where individuals claim a high capability in identifying entrepreneurial opportunities but have much lower confidence regarding the competence to start and run firms. In US and UK the opposite pattern prevails.

- Including all countries in GEM, irrespective of their stage of development, a negative correlation is revealed between intrapreneurship in existing firms and TEA. In other words, a low level of entrepreneurship appears to go hand-in-hand with high levels of intrapreneurship and vice versa.

- However, if we focus exclusively on the innovation-driven countries an opposite pattern emerges, i.e. entrepreneurship and intrapreneurship appear to be positively correlated.

- In almost all dimensions that measure entrepreneurial activity, Anglo-Saxon countries are shown to outperform other countries – be it TEA, new business ownership, women's entrepreneurship or those intending to start a business. To close the entrepreneurial gap, in particular to the US, institutions must more clearly encourage risk, entrepreneurial endeavour and firm growth.

- Opportunity-based TEA and expenditure on education, and R&D, are positively associated. Hence, supply of skills and interaction between universities and the business sector is important for the quality of entrepreneurship. Incentives should be designed to encourage such interactions.

- Handling regulations is always more costly for new and small firms since there is a fixed cost attached to such procedures. TRed tape mus be decreased and costs cut, i.e. through digitalised system, one stop shops, etc. One urgent issue is to facilitate participation for SMEs in public procurement, preferably paired with procurement innovation policies.

- There is a distinct negative relationship between fear of failure and total entrepreneurial activity. Hence, it is an important task for policy-makers to reach a reasonable balance between the legitimate demands by a firm's creditors and the obligations imposed on the individual entrepreneur.

- The intention to start a firm within three years is strongly associated with TEA three years ahead. Hence, the intention variable may be used as an early warning of the development of TEA.

1

GLOBAL ENTREPRENEURSHIP MONITOR

– INTRODUCTION AND SUMMARY

1.1 THE GLOBAL ENTREPRENEURSHIP MONITOR (GEM) – AN INTRODUCTION

Why is entrepreneurship important? Because entrepreneurs are, as Schumpeter put it, "the agents of change". The first industrial revolution was, in conjunction with institutional changes, driven by entrepreneurs, as were the second and third industrial revolutions. Today, we face an unprecedented level of global challenges that cannot be solved without the contribution of global entrepreneurship. These challenges, or development goals, must be addressed through close and innovative interaction among broad groups in society: incumbents, new firms, academia and policymakers. Therefore, it is critically important to comprehend how entrepreneurship evolves, the ambitions of entrepreneurs and the attitudes towards entrepreneurial endeavours. That is what the Global Entrepreneurship Monitor accomplishes.

The 17th Global Entrepreneurship Monitor Report (GEM) was published in February 2016 and was based on data for 2015.[1] Each year, the report examines individual attitudes, activities and ambitions with respect to entrepreneurship around the world. Since the first survey, which covered 10 countries, was conducted in 1999, the study has grown to include 181,000 respondents in 62 countries in 2015, representing over 72 percent of the world's population and 90 percent of the world's GDP. This makes GEM the largest ongoing study of entrepreneurship and entrepreneurial dynamics in the world.

The current report focuses on entrepreneurial development among the three most important global players: China, the EU and the US More precisely, we will discuss how entrepreneurial activities, ambitions and attitudes have evolved over time in EU countries, the US and China. Part of the analysis will be narrowed to the larger EU-countries (France, Germany, Italy and the UK), small EU countries (Belgium and the Netherlands), the Nordic countries and the PIGS -countries (Portugal, Italy, Greece and Spain), together with China and Sweden. The results will be presented as weighed averages when country groups are used. We will explore how these different countries

1. *The global report can be downloaded from www.gemconsortium.org.*

Figure 1.1: The entrepreneurial process

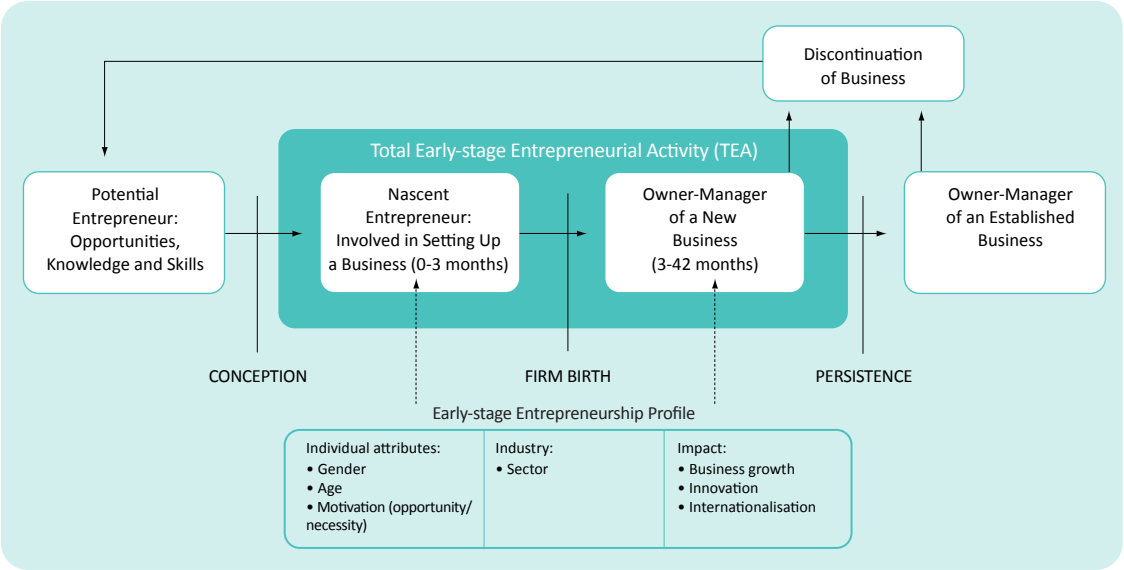
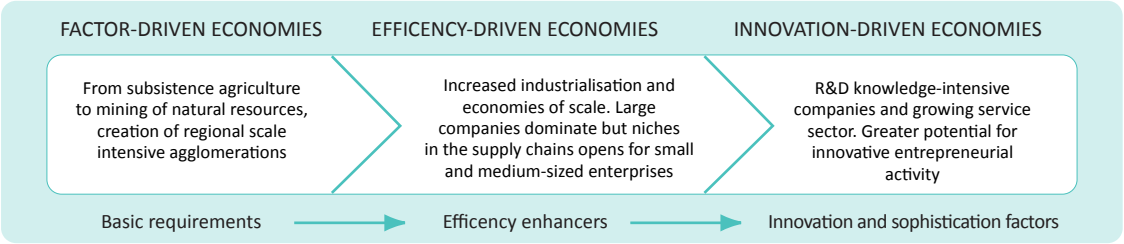


Figure 1.2: Characteristics and key concepts, economic development phases



and country groups compare with one another and whether there are lessons to be learned from divergent entrepreneurial patterns.

This introductory chapter describes the GEM model and briefly summarises the global results of the 2015 survey, and Chapter 2 presents more detailed results for various European countries, country groups, as well as China, Sweden and the US. The following Chapter 3 presents the results regarding intrapreneurship or the entrepreneurial activities of employees in incumbents. Finally, conclusions and policy recommendations are provided in Chapter 4.

THE GEM CONCEPTUAL FRAMEWORK

The GEM model is based on the idea that entrepreneurship is key to a country's prosperity and that this applies, albeit through different channels and in various ways, regardless of the degree of a country's economic development.

The objective of the model is to map the entrepreneurial process, beginning with the potential entrepreneur, moving to the start-up of a business, then to an established business, and finally to a potential discontinuation of the business. The GEM differs from similar projects in that it takes the individual's perspective on entrepreneurial activities, ambitions and attitudes[2].

The GEM methodology focuses on the separate stages that characterise the entrepreneurial process (Figure 1.1). The starting point is the individual's potential, i.e., whether an individual is considering exploiting identified opportunities and believes that he or she can start and run a firm. When the potential entrepreneur has converted perceived opportunities and capabilities into activity, the process moves to the

2. *Definitions and terms are explained on the inside of the report's cover.*

Table 1.1: Countries by geographic region and economic development

	Factor-Driven Economies	Efficiency-Driven Economies	Innovation-Driven Economies
Africa	Botswana, Burkina Faso, Cameroon, Egypt, Senegal, Tunisia	Morocco, South Africa	
Asia & Oceania	India, Iran, Philippines, Vietnam	China, Indonesia, Kazakhstan, Lebanon, Malaysia, Thailand, Turkey	Australia, Israel, Japan, Republic of Korea, Taiwan
Latin America & Caribbean		Argentina, Barbados, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Panama, Peru, Uruguay	Puerto Rico
Europe		Bulgaria, Croatia, Hungary, Latvia, Poland, Romania, Macedonia	Belgium, Estonia, Finland, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK
North America			Canada, United States

next phase – that of the nascent entrepreneur (i.e., someone who is involved in starting a business during its first three months). The next stage is ownership and management of a new business, a period that runs from three months to 3.5 years after the start of the business. These two phases form the foundation for the measure of TEA (Total Early-stage Entrepreneurial Activity), which is a central part of the GEM survey. The GEM survey also collects data on businesses that are older than 3.5 years. These are defined as established businesses. Finally, information is gathered on the discontinuation of businesses. This is the overall structure of the model that forms the basis for the results presented in this report.

The participating countries in the survey are divided by geographic region and different stages of economic development. The three different stages of development are defined as factor-driven, efficiency-driven and innovation-driven economies. Figure 1.2 illustrates these stages and describes the characteristics of each category in greater detail, and Table 1.1 classifies the 62 countries that participated in the GEM study in 2015 by geographic region and stage of economic development.

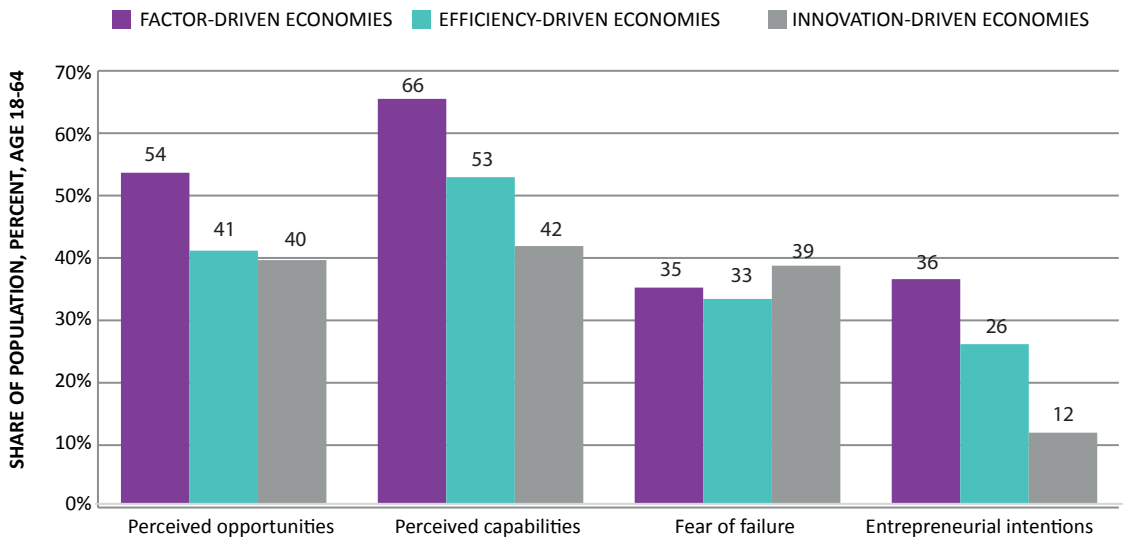
1.2 SUMMARY OF THE GLOBAL GEM REPORT 2015

ENTREPRENEURIAL ATTITUDES, PERCEIVED OPPORTUNITIES, CAPABILITIES AND INTENTIONS

Promoting entrepreneurial awareness and positive attitudes towards entrepreneurship is a high priority on most countries' policy agendas. The underlying notion is that an overall positive view of entrepreneurship may result in more people taking the plunge into business start-ups. Consequently, the GEM survey gathers data on attitudes and entrepreneurial ambitions, in addition to data on entrepreneurial activities. Attitudes towards entrepreneurship include an individual's perceived ability to start a business, perceived business opportunities and fear of failure, all of which can be expected to influence entrepreneurial activity. Obviously, more severe consequences of failure can deter an individual from exploring a perceived business opportunity.

In addition to factors at the individual level, there are contextual conditions, such as the dynamics of the labour market and other institutions (laws and regulations), that may affect individuals' propensities to

Figure 1.3: Individual attributes in the GEM economies in 2015, by phase of economic development



engage in entrepreneurial activity. Hence, a complex mix of individual, social and contextual factors underlie individuals' decisions to engage in entrepreneurial endeavours. GEM enables us to capture this complexity by providing individually based data.

As shown in Figure 1.3, there are considerable differences between countries in different stages of economic development regarding perceived entrepreneurial opportunities, individuals' abilities to start businesses and entrepreneurial intentions. A generally established pattern is that perceived opportunities and capabilities tend to decline as economic development increases.

The highest average levels of perceived business opportunities (54 percent) and perceived capabilities (66 percent) are found in the factor-driven countries, whereas the lowest are found in the innovation-driven countries (40 and 42 percent, respectively).

The next step in the entrepreneurial process starts when a potential entrepreneur decides that he or she intends to start a new business in the next three years; these are so-called potential entrepreneurs. Entrepreneurial intent also differs between countries in different stages of economic development, with factor-driven economies generally exhibiting significantly higher levels of entrepreneurial intent. This can, at least partly, be explained by the fact that there are less labour market opportunities in these countries. In efficiency-driven and (especially) innovation-driven economies, entrepreneurial intentions are lower.

Perceived business opportunities, high confidence in one's own capabilities and entrepreneurial intentions are not sufficient to lead to a high level of entrepreneurial activity. Fear of failure in entrepreneurial ventures may leave a large portion of potential opportunities untapped. This fear is greater in innovation-driven countries than in efficiency- and factor-driven countries. It is important to note that fear of failure partly relates to the type of business a respondent intends to start, which also tends to correlate with degree of economic development. In factor-driven countries characterised by large economic inequalities, entrepreneurial intentions often focus on local, necessity-based entrepreneurship, with limited growth and development ambitions.

ENTREPRENEURIAL ACTIVITY (TEA) – ENTREPRENEURSHIP IN THE EARLY STAGES

As noted above, Total Entrepreneurial Activity (TEA) is a central part of the GEM survey. A country's TEA is defined as the proportion of the population aged

Table 1.2: Entrepreneurial activity and motivational reasons by level of economic development

	Factor-driven Economies	Efficiency-driven Economies	Innovation-driven Economies
Total Entrepreneurial Activity (TEA)	21	15	8
Necessity-driven Entrepreneurship (share of TEA)	30	29	18
Opportunity-driven Entrepreneurship (share of TEA)	68	69	78

Note: TEA is the percentage of the adult population engaged in early stage entrepreneurial activity. Figures are the proportions of TEA that fall within each motivational category.

18–64 who are actively involved in starting a business in either the very early phase (nascent entrepreneurship, 0–3 months) or the phase that extends to 3.5 years after a company's inception.

Table 1.2 shows TEA for all countries, categorised by development. Factor-driven economies are shown to have the highest proportion of entrepreneurial activity, with an average of 21 percent, while the corresponding proportion is eight percent for innovation-driven economies.

Among innovation-driven economies, the highest TEA levels are found in Canada (15 percent), Estonia (15 percent), Australia (13 percent) the United States and Israel (12 percent each), whereas the lowest levels are found in Germany and Italy (four percent).

Motivational reasons

The motivational reasons for starting a business vary widely across countries. At the individual level, this is captured in the GEM model by the distinction between necessity- and opportunity-based entrepreneurship. In the former case, the reasons for starting a business are related to limited possibilities to earn a livelihood relative to perceived business opportunities. Those who view entrepreneurship as an opportunity rather than a necessity, are driven by the possibility to earn more money and achieve greater independence rather than the need to maintain an income. The share of necessity-based entrepreneurship in TEA is clearly linked to the level of economic development, with necessity-driven entrepreneurship decreasing as economic development increases (Table 1.2).

Necessity-driven entrepreneurship often relates to fundamental economic factors. In developing countries, start-ups are often a consequence of a lack of jobs and undeveloped social security systems, which force people to try to acquire alternative livelihoods through entrepreneurship. As economies develop, the supply of jobs usually increases, resulting in fewer people being forced into necessity-based entrepreneurship. Factor-driven economies are characterised by the highest levels of entrepreneurial activity in the GEM study but also the highest proportion of necessity-based entrepreneurship. In 2015, the average of necessity-based entrepreneurship was 30 and 29 percent, respectively, for factor-driven and efficiency-driven economies, while the corresponding proportion for innovation-driven economies was 18 percent.

Innovation-driven economies exhibit, on average, the lowest levels of entrepreneurial activity but the highest proportion of opportunity-based entrepreneurship. In these economies, the entrepreneur identifies and pursues an opportunity that can improve not only his or her income but also his or her degree of perceived independence. In the innovation-driven countries, opportunity-driven entrepreneurship is the norm. The division between opportunity- and necessity driven entrepreneurship can be seen as indicators of qualitative and quantitative entrepreneurship.

The gender gap

Through the years, GEM has shown that the early stages of entrepreneurial activity among women vary considerably worldwide. These differences between countries reflect differences in culture and tradition

regarding women's participation in the economy and more general societal perceptions of women's role in the labour market.

Men generally dominate entrepreneurship in the early stages all over the world, but as previous GEM studies have shown, there is no notable difference between women and men in terms of perceived opportunities and capabilities. Only the fear of failure is somewhat higher among women than men.

Another pattern emerges when the motivational reasons for entrepreneurship in the early stages are examined, namely, that in all regions women's entrepreneurship is more often necessity-driven than men's. In six economies, women show equal or higher entrepreneurship rates than men (Vietnam, Philippines, Thailand, Malaysia, Peru and Indonesia). However, the necessity portion of female TEA is high. Malaysia though, exhibits gender equity in both TEA rates and necessity motives, where women are about as likely as men to be entrepreneurs, and equally likely to be necessity-motivated.

ENTREPRENEURIAL AMBITIONS FOR GROWTH, INNOVATION AND INTERNATIONALISATION

GEM also measures ambitions associated with entrepreneurship. More precisely, ambitions are defined as entrepreneurs' expected job creation together with their innovation and internationalisation efforts. These types of entrepreneurial ambitions have been positively linked to economic development.[3]

Growth ambitions

Growth ambitions of entrepreneurs in the early stages are directly connected to political priorities around the world, i.e., the creation of jobs. Young and small businesses are of particular interest in this respect, and their importance in contributing to job creation is established in the literature.[4] GEM measures expected job growth associated with companies by asking early-stage entrepreneurs how many employees they expect to hire in the coming five years.

The results may come as a surprise. Although some may assume that entrepreneurs at the factor-driven stage operate without many employees, it is in fact the innovation-driven economies that, on average, have the highest proportion of entrepreneurs with no future hiring expectations (see Figure 1.4). Sophisticated technology and communications may enable entrepreneurs in developed economies to remain small, perhaps as part of a broader value network. In less developed economies, however, it may be easier to hire people who have fewer job alternatives and where there are fewer regulations imposed on employers.

Innovative orientation

While expectations of job growth and how they are realised constitute a visible effect of entrepreneurship in the short term, innovation is indicative of the long-term prospects of entrepreneurs. Innovation here refers to the Schumpeterian view that new products, services, processes, organisations and markets drive the further development of a country.

GEM measures the innovative orientation of a business from two perspectives (product and market). The study examines the extent to which entrepreneurial products or services are new to some or all customers in the market and whether few or no competitors offer the same product or service. It is important to note that this measure is rather context-dependent because some products/services, despite globalisation, may be new to internal markets in many economies, although they are already available in other markets. Nevertheless, a high degree of innovation tends to positively impact the economic development of the country in question.

North American economies are more innovation-oriented than the rest of the world in both respects. Asia and Oceania shows a different pattern of high product innovation but less introduction of products to new markets. African economies, with the exception of South Africa, exhibit low innovative orientation in both respects. EU countries are, on average, more innovation-oriented in both dimensions measured by GEM than most other regions.

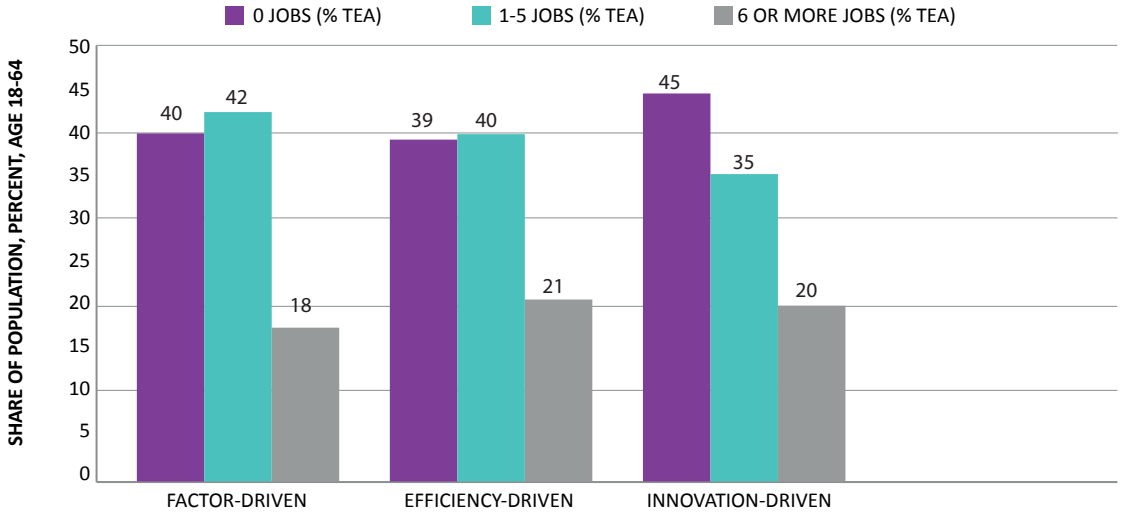
Internationalisation

As globalisation proceeds, it becomes increasingly important for new and young firms to penetrate foreign markets. While innovation may pave the way for small and new companies, such firms must also acquire skills to expand into markets for their products, particularly for ventures originating in countries with small domestic markets.

European countries, with their tradition of international trade and geographical proximity to various markets, have the highest percentage of young companies that indicate that at least 25 percent of their customers are located outside their countries.

3. *Amorós et al. (2013).*
4. *Birch, D, (1979); Haltiwanger et al. (2010); Braunerhjelm et al. (2014).*

Figure 1.4: Development phase averages for employment projections in the next five years (percentage of TEA)



1.3 SUMMARY OF THE FINDINGS OF THE GLOBAL GEM REPORT 2015

The results of the Global GEM report 2015 confirm many of the findings of previous reports. The least economically developed parts of the world generally exhibit the highest levels of entrepreneurial activity but also the highest levels of entrepreneurship driven by necessity rather than perceived opportunities.

Perceived business opportunities and capabilities to start and run a business are also greatest in these factor- and efficiency-driven countries. The innovative orientation of businesses increases as economic development increases. GEM 2015 shows, once again, that there is a considerable gender gap in most countries and that women's entrepreneurship is more often necessity-driven than men's.

In the global GEM report, the authors stress the importance that decision-makers understand that different types of entrepreneurship coexist (e.g., early-stage entrepreneurship, established businesses, employees' entrepreneurial activities). Identification and support of these different types of entrepreneurship and recognition, for example, of entrepreneurial activity manifested in established businesses contribute to an improved understanding of a country's entrepreneurial capacity and potential.

2

A CROSS-COUNTRY ANALYSIS OF ENTREPRENEURIAL ACTIVITY, AMBITON AND ATTITUDES

Chapter 2 contains three sections based on the GEM's classification of entrepreneurship on entrepreneurial activities, entrepreneurial ambitions and societal attitudes towards entrepreneurship. Our comparison involves six countries (China, France, Germany, the UK, the USA and Sweden) and three country groups – small EU-countries (Belgium, Ireland and the Netherlands), the Nordic countries (Finland and Norway but not Sweden) and southern Europe (PIGS – Portugal, Italy, Greece and Spain).

These countries and country groups form the basis for the international comparisons when we look at entrepreneurial activity in section 2.1 (e.g., level, types, gender, age and industry composition) and entrepreneurial attitudes in section 2.3 (e.g., intention, perceived opportunities and capabilities, fear of failure, career choice). When examining entrepreneurial ambitions (employment growth, market position, innovation and internationalisation), all innovation-driven economies are included in the analysis.

Time series, or more precisely, three to four-year averages during 2004 to 2015, will be presented for most of the variables used in the comparisons below. Data will be presented that cover the entire life cycle of entrepreneurs: potential entrepreneurs, people with intentions to found a business, early-stage entrepreneurs who are actually starting and running a new business and owners of established businesses.[5]

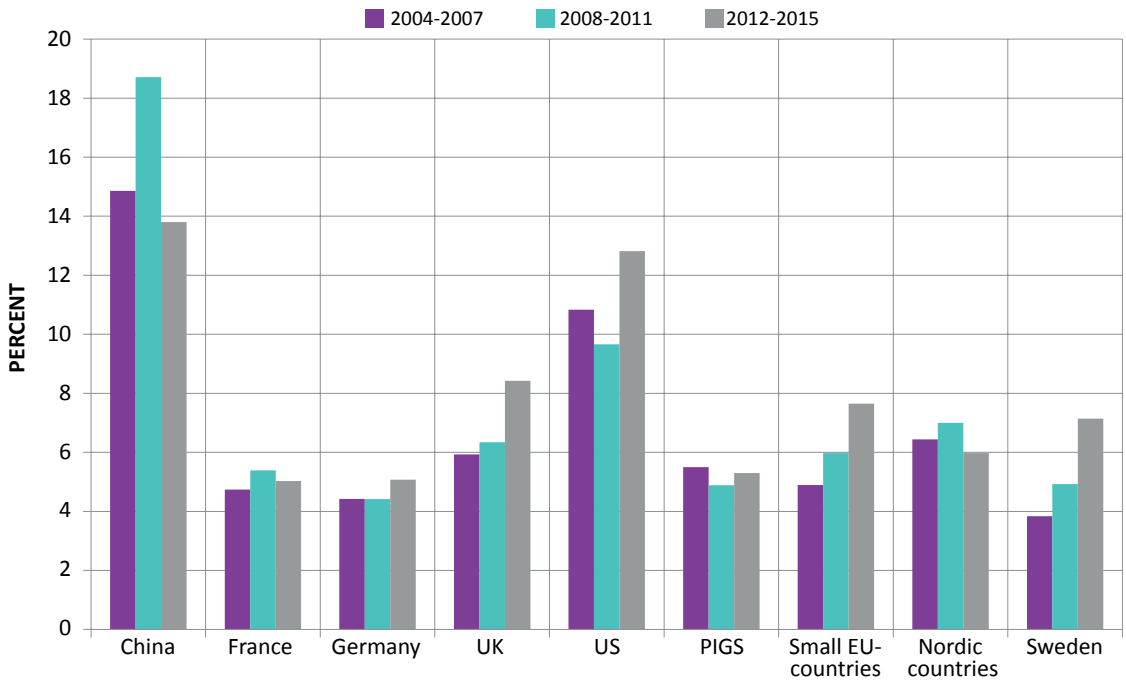
2.1 ENTREPRENEURIAL ACTIVITY

We distinguish between individuals who are in the process of starting a business (i.e., nascent entrepreneurship, 0–3 months old), those operating a new business which is older than three months but younger than 3.5 years (new business ownership), and those operating an established business (older than 3.5 years). The nascent entrepreneurship rate combined with the new business ownership rate forms the total early-stage entrepreneurial activity (TEA) within an economy.

Figure 2.1 compares TEA for six countries and three groups of countries that participated in the GEM between 2004 and 2015. It is obvious that the TEA rates vary between the three categories of economies with higher and increasing levels of entrepreneurial activity observed for the Anglo-Saxon countries but also for small EU-countries and Sweden. China has witnessed a marked decline in entrepreneurship, whereas a relative stable pattern can be observed for the remaining countries and country groups. The lowest level of entrepreneurial activity is found in the large EU economies of Germany and France, together with those countries most severely hit during the aftermath of the

5. *However, exit will not be covered because it may occur for a number of reasons that are not well accounted for in the data, e.g., bankruptcy, mergers, and splits.*

Figure 2.1: Total early-stage Entrepreneurial Activity (TEA)
Percentage of 18–64 year olds in population who are either nascent entrepreneurs or owner-managers of new businesses



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

financial crisis in 2007–2009, i.e., the PIGS-countries. We will return to the possible explanations of this development below. The high level of entrepreneurship in the US is noteworthy, almost on par with China despite its much higher level of development, and up to three times larger than in most other European countries and country groups.

Turning to nascent entrepreneurship – the earliest stage of actually getting involved in entrepreneurial activities – the US dominates, with a share of nine percent of the adult population that were involved in setting up a business 2015 (Figure 2.2). With the exception of China, Sweden, being a traditional welfare state that is organised quite differently compared to the US, ranks second. Together with the US, UK and other small EU-countries, Sweden experienced a marked increase in nascent entrepreneurship between 2008–2011 and 2012–2015.

Nascent entrepreneurship is important because it captures the extent to which countries are engaged in market experiments which may generate new and growing firms. However, the underlying reasons may differ between countries as may the societal impact, depending on whether entrepreneurial endeavours are undertaken due to institutions being favourable to start-ups or because various types of support structures subsidises entrepreneurial activities. These two need not be in conflict with each other, but it is important to identify the drivers of entrepreneurial activity to comprehend the underlying dynamics.

After surviving the first three months the nascent firms are classified as new business ownerships (young firms between 3 and 42 months old). According to Figure 2.3, the picture is much more cramped when looking at new businesses. Disregarding China, the US and the UK, together with small EU-countries, report the highest shares of the adult population running a new firm.[6] The latter group has experienced a clear positive trend since 2004–2007 and are almost on par with the US for 2012–2015. A weaker but similar

6. *The large share for China is likely to reflect the opening up of a formally closed economy and the (overoptimistic) attempt to exploit conceived business opportunities. Still, the share decreased considerably between 2008–2011 and 2012–2015.*

Figure 2.2: Nascent entrepreneurship rate

Percent of the 18–64 year old population who are currently nascent entrepreneurs, i.e. actively involved in setting up businesses they will own or co-own; such a business has not yet paid salaries or wages or made any other payments to the owners for more than three months

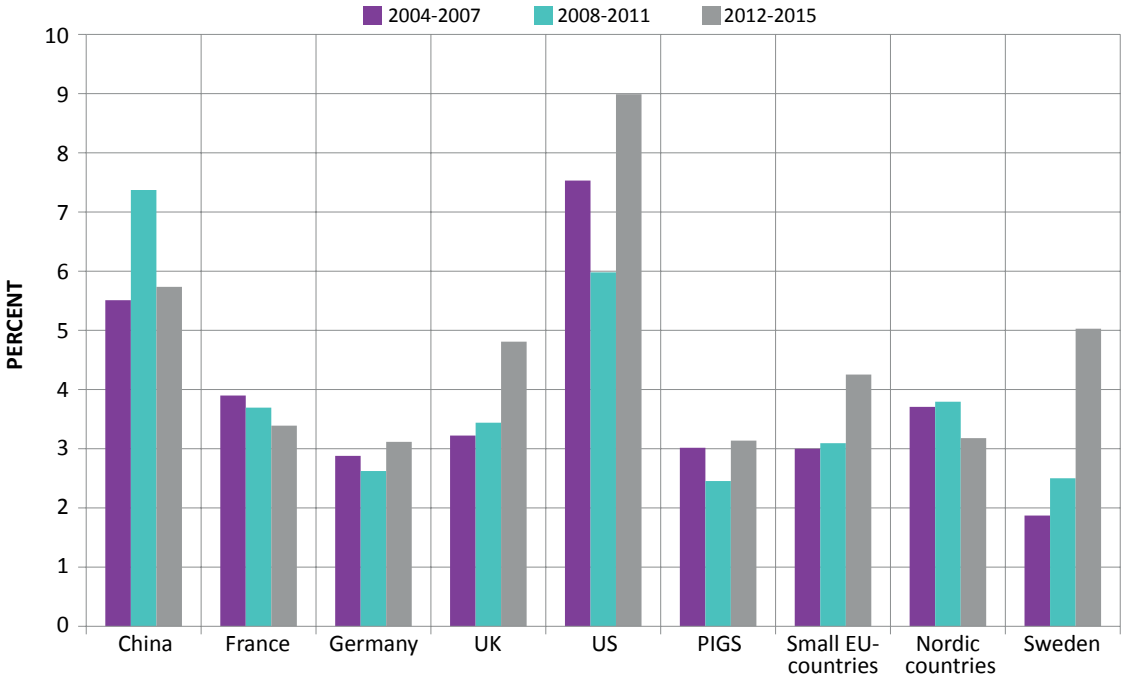


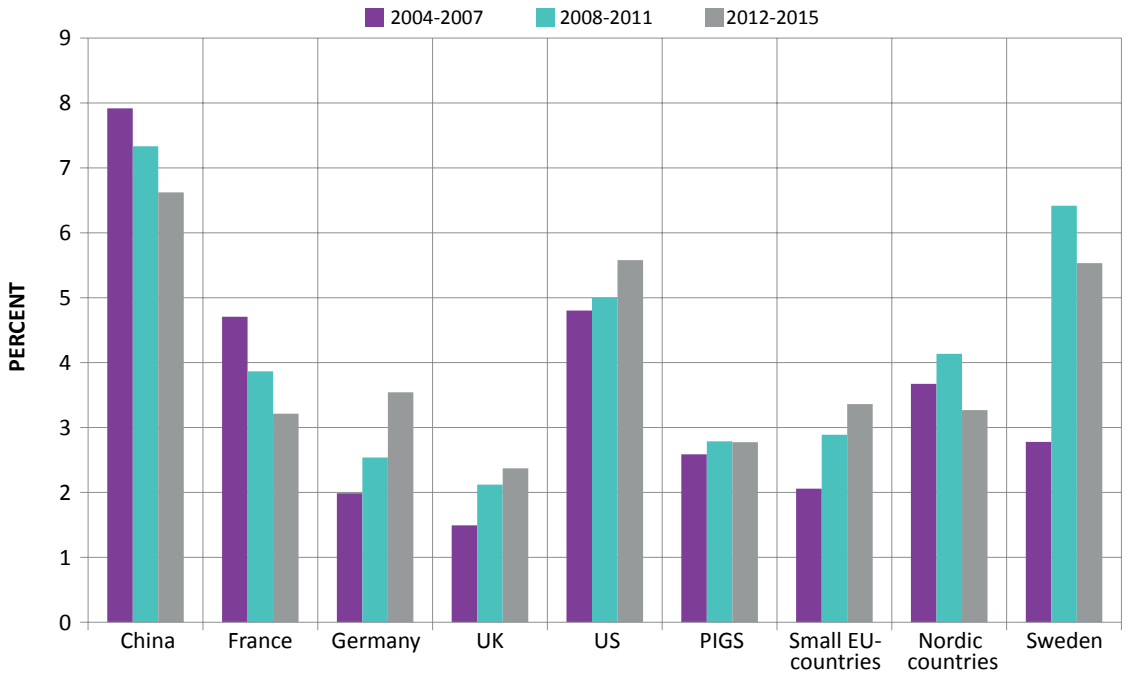
Figure 2.3: New business ownership rate

Percentage of 18–64 year old population who are currently owner-managers of new businesses, i.e. run businesses that have paid salaries or wages or made any other payments to owners for more than three months but not more than 42 months

Note Figure 2.2 and 2.3: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

Figure 2.4: Informal investors rate

Percentage of 18–64 year old population that has personally provided funds for a new business started by someone else in the past three years



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

pattern is shown for the UK over the time period that we consider. The low levels in remaining large EU-countries is noteworthy, as is the decline in the traditional small business PIGS-countries.

EARLY STAGE CAPITAL

A widely discussed and often prioritised policy area concerns access to capital. Doubtlessly, this is critically important for new and young firms, and market failures are likely to be most pronounced for these categories of firms. The GEM provides data on the share of the adult population involved in funding new businesses, what is often referred to as family, friends and fools, i.e. informal investors or angel capital. Figure 2.4 reveals some interesting findings. First, Sweden is shown to be one of the countries with the largest share of informal investors; it has, in fact, a higher share than any of the other innovation-driven countries or country groups in 2008-2011, closely followed by the US. Furthermore, China seem to host a large share early-stage funding individuals. This may explain Sweden's high and increasing share of nascent entrepreneurs. Second, the crisis that started in 2008 does not seem to have deprived countries of their informal investors. Instead, it increased in a number of countries between 2008 and 2011 compared to 2004-2007, and in some cases, it continued to increase in 2012–2015.

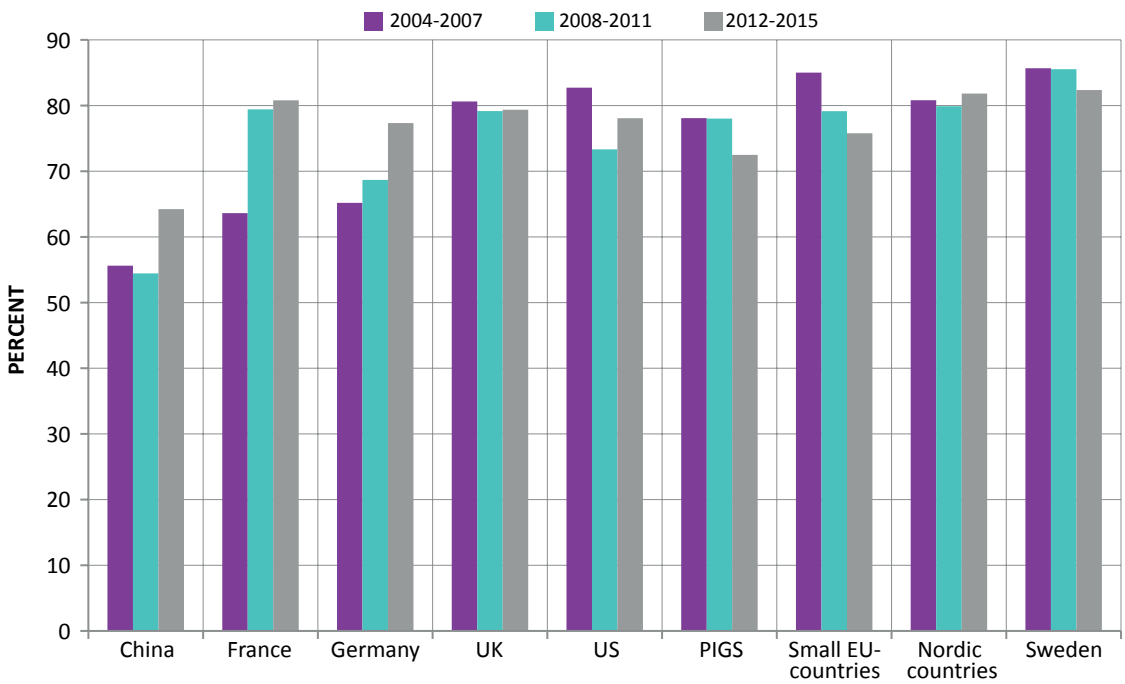
ENTREPRENEURIAL MOTIVE – NECESSITY OR OPPORTUNITY

A key difference in the character of entrepreneurship can be observed by comparing the primary motivations of the entrepreneurs. On the one hand, they may be pushed into starting a business out of necessity because they have no other work options and need a source of income, i.e., necessity entrepreneurship. On the other hand, they may be pulled into starting businesses because they recognise lucrative business opportunities and choose to pursue them.

GEM refers to opportunity-based entrepreneurship when people start businesses to improve their incomes

Figure 2.5a: Necessity-driven entrepreneurial activity: relative prevalence
Percentage of those involved in TEA because they have no other work options

Figure 2.5b: Opportunity-driven entrepreneurial activity: relative prevalence
Percentage of those involved in TEA because they identified business opportunities



Note Figure 2.5a and b: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

7. *Lamballais Tessensohn and Thurik (2013).*

or gain independence in their work. Entrepreneurs in innovation-driven economies tend to be primarily driven by opportunity-motivated entrepreneurship.

Figures 2.5a and 2.5b clearly illustrate this distinction. Most countries are predominantly characterised by opportunity-driven entrepreneurship, the exception being China. As economies become richer and more developed the share of necessity driven entrepreneurship normally falls. In 2012–2015, between 70–90 percent of all entrepreneurship is related to business opportunity for the five innovation-driven economies and three country groups. Also in China necessity-driven entrepreneurship has decreased – from approximately 45 percent in 2004–2007 to 35 percent in 2012–2015. Among innovation-driven economies, necessity-driven entrepreneurship has increased not only in the PIGS countries, which were particularly hard hit by the economic crisis, but also, and somewhat more surprisingly, in the UK and small EU-countries. The Nordic countries together with Sweden have the lowest shares. France and Germany reveal considerable reductions in necessity-based entrepreneurship, albeit from relatively high levels.

Each of these types of entrepreneurship is important for the economic development but we expect opportunity based entrepreneurship to be more associated with productivity and growth effects.[7]

THE GENDER GAP

Figures 2.6a and 2.6b present the TEA rate for the male and female adult population. The rankings in Figure 2.6a basically mimic the overall TEA rate shown in Figure 2.1, but the shares are higher when we restrict the analysis to men. When the corresponding graph for women is depicted, it is obvious that countries having a strong entrepreneurial performance in general also have that for women (Figure 2.6b). Among developed economies, the US and the UK are far ahead of the remaining countries but trail China's rate. Small EU-countries, Sweden and the UK display a pronounced positive trend throughout the studied period.

The female TEA prevalence rate further reveals that most countries do have quite a gender gap in entrepreneurship (Figure 2.7), where the share of women entrepreneurs is approximately 50 percent compared to males in most of the countries. The UK is the only country that is shown to have a trend-wise increase over the period.

ESTABLISHED BUSINESSES

With respect to established business ownership in innovation-driven countries, we can see from Figure 2.8 that the share ranges from about 3.5 percent to almost eight percent (the US) and that a surprisingly large number of countries seems to have a share in the range of 6.5–7.5 percent of the adult population running a firm older than 3.5 years. China is again an outlier, with a rate close to 10 percent, which corroborates previous finding regarding the relationship between the stage of economic development and the number of firms.

Again, smaller EU countries had a positive development over the period, as did France, though from a considerably lower level. Sweden performed worse compared to the other countries and country groups when we look at established businesses, which may reflect the dominance of large firms in the Swedish economy.

INDUSTRY AND AGE COMPOSITION OF ENTREPRENEURSHIP

The distribution of early-stage entrepreneurs (TEA) by industry is shown in Figure 2.9. Basically, the distribution of TEA in industries reflect these countries' and country groups' overall specialisation. Hence, the Nordic countries and Sweden have a relatively large share of entrepreneurship in the extractive sectors compared to the other countries, whereas entrepreneurial activities are more concentrated in the business service sector in the UK and the US. China, in contrast, is shown to be dominated by entrepreneurs in the consumer service sector, as expected. Sweden reports relatively large changes regarding entrepreneurship in the consumer service and business service sectors between 2014 and 2015, which is probably related to a heated political discussion in the election year 2014 regarding the continuation of subsidies to particularly consumer services but also the future terms for private welfare services. The sectoral differences are quite small between countries, with China again deviating from the general pattern.

The last figure related to entrepreneurial activity focuses on the age distribution of entrepreneurs. As shown in Figure 2.10, approximately 35–40 percent of early-stage entrepreneurship takes place in the age cohorts 18–24 and 25–35. For all countries, however, entrepreneurship is most common in individuals' mid-career ages, i.e., the age cohort 35–54. There are signs of entrepreneurship becoming more prevalent for the

Figure 2.6a: Total early-stage entrepreneurial activity for male working age population
Percentage of male 18–64 year old population who are either nascent entrepreneurs or owner-managers of new businesses

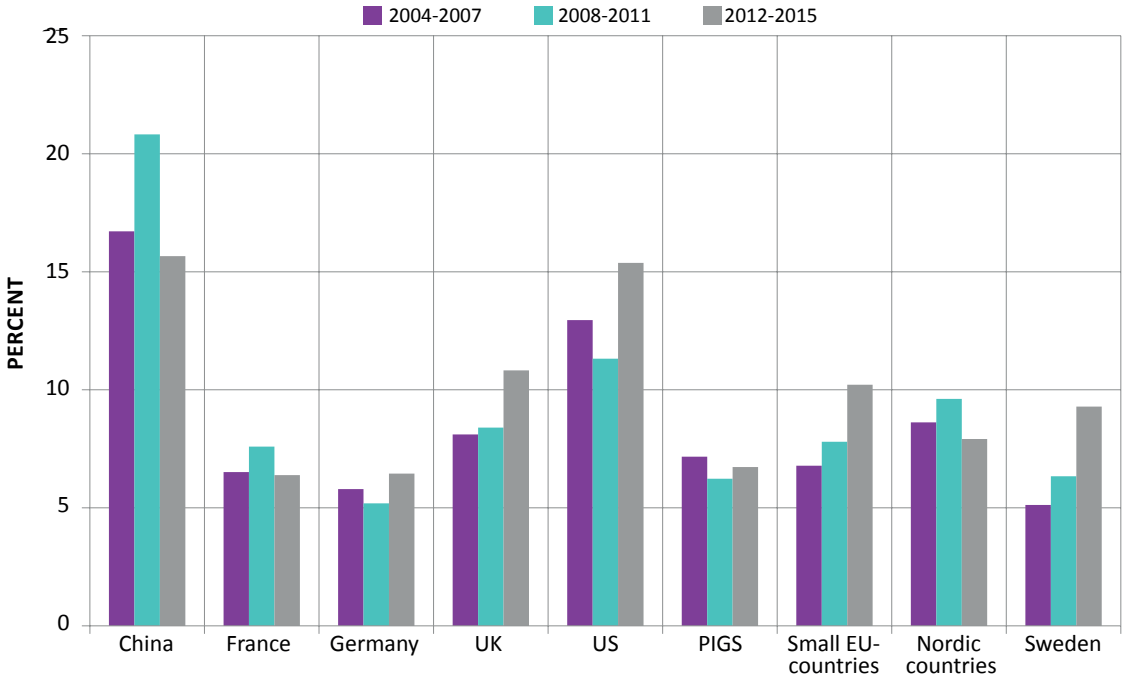
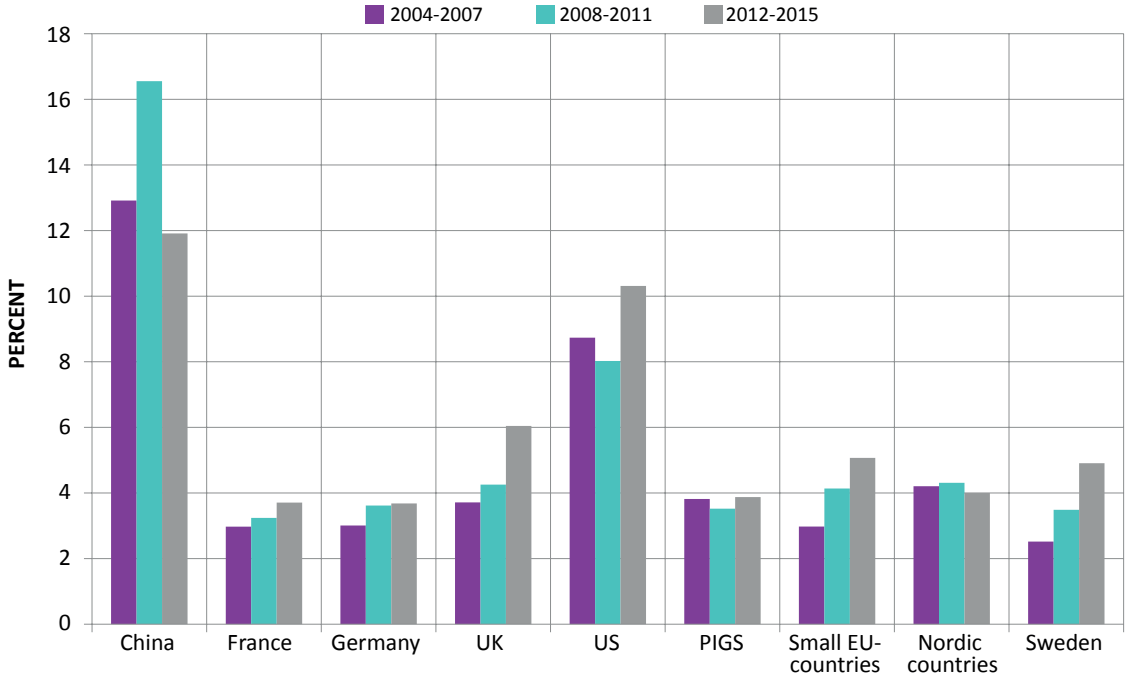


Figure 2.6b: Total early-stage entrepreneurial activity for female working age population
Percentage of female 18–64 year old population who are either nascent entrepreneurs or owner-managers of new businesses



Note Figure 2.6a and 2.6b: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

Figure 2.7: Total early-stage entrepreneurial activity; number of females per male

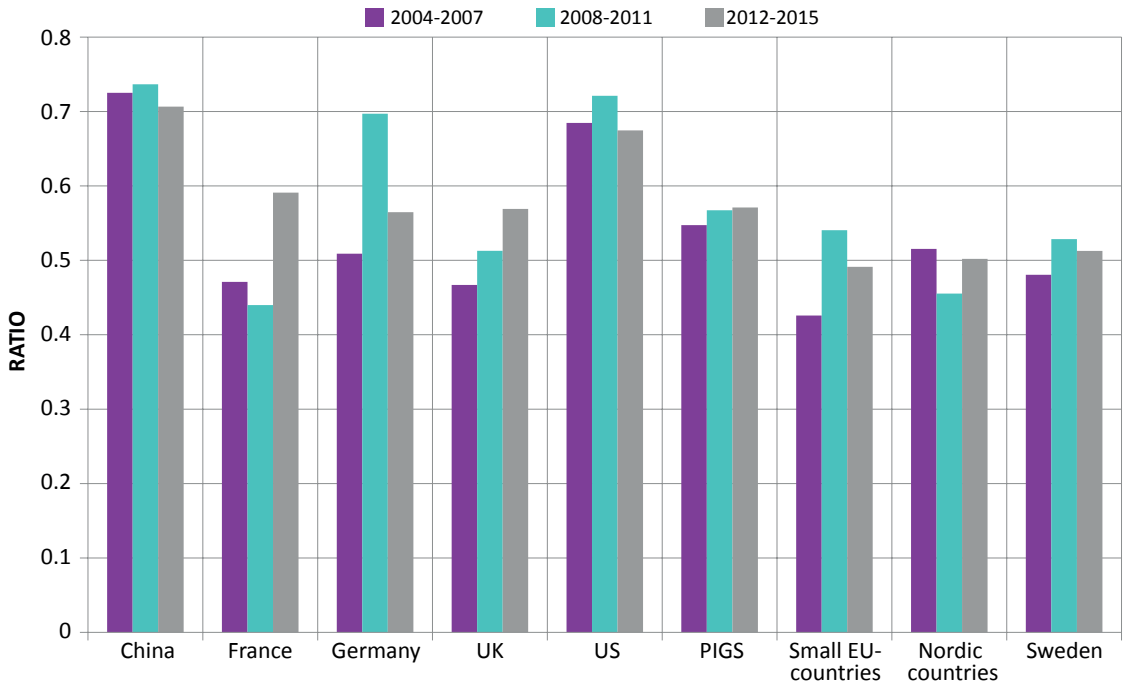
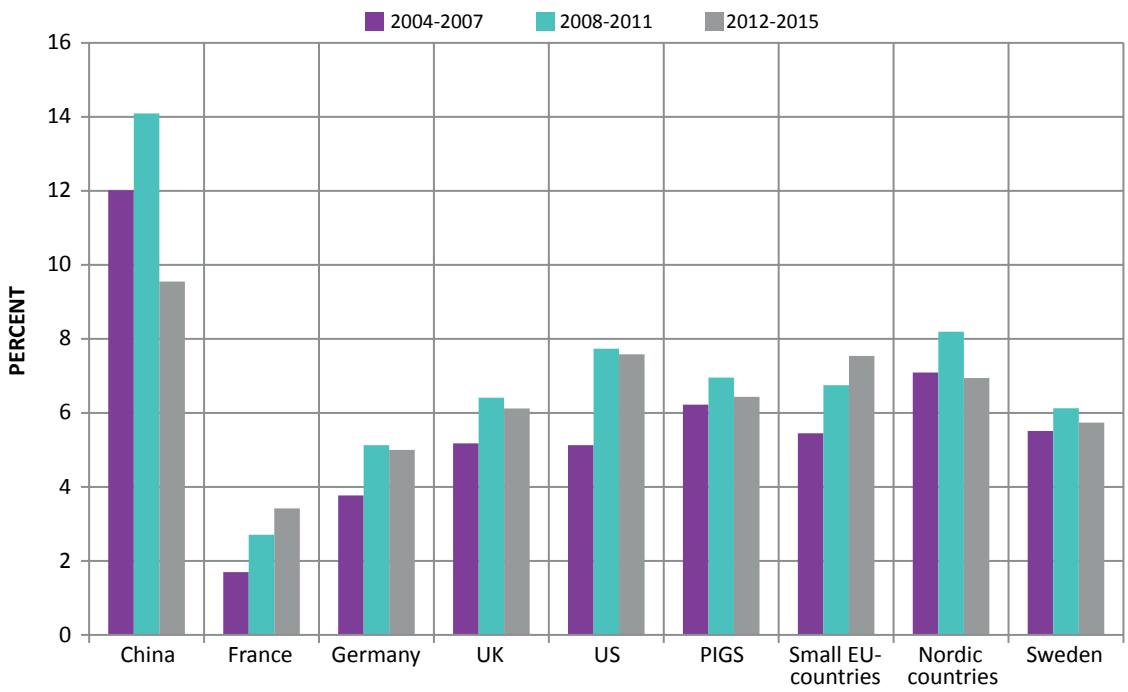


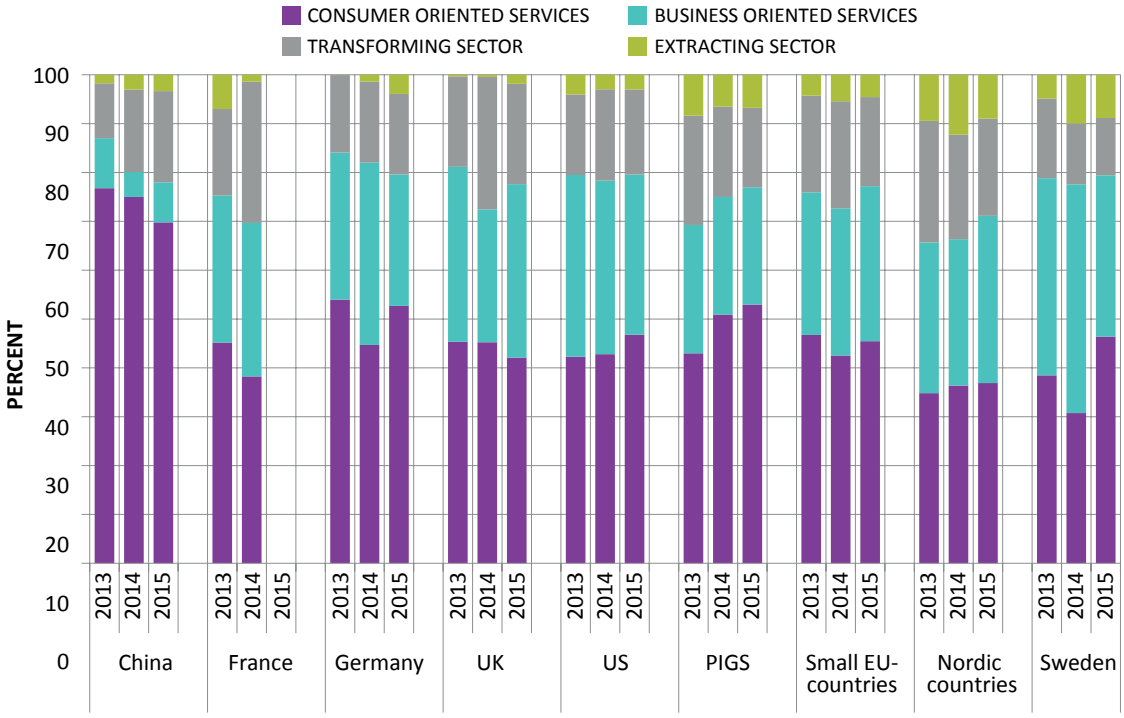
Figure 2.8: Established business ownership rate

Percentage of 18–64 year old population who are currently owner-managers of established businesses, i.e. run businesses that have paid salaries or wages or made any other payments to owners for more than 42 months



Note Figure 2.7 and 2.8: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

Figure 2.9: TEA distributed on sectors 2013–2015



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain.

more elderly (55–64), particularly in France, the Nordic countries and Sweden. However, the share is quite low, somewhere between 13–18 percent in 2014.

2.2 ENTREPRENEURIAL AMBITIONS – GROWTH, INNOVATION AND INTERNATIONALISATION

The way in which new firms and businesses impact the national economy depends on the institutional framework that surrounds the activity of incumbents and entrepreneurs. This section profiles the potential impact of entrepreneurship by looking at the perceived i) job-creation potential of their businesses, ii) market position, iii) innovativeness, and iv) internationalisation measured as the share of foreign customers.

In this section, we will present data for all countries defined as innovation-driven, based on data for the last available year (2015) and on averages for the last three years.

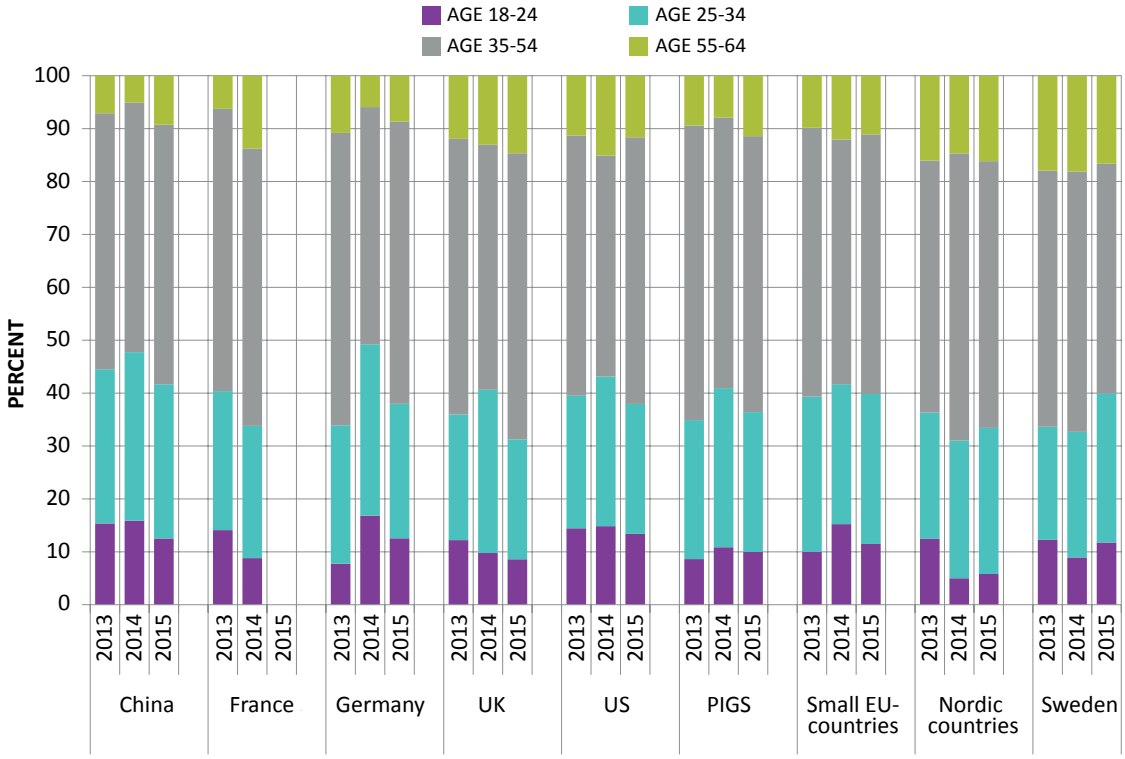
JOB GROWTH EXPECTATIONS

Growth expectations measure how many employees the entrepreneurs expect to employ in the coming five years. Previous research has shown that growth expectations are a workable indicator of later growth performance by firms.[8] In Figure 2.11, the average growth expectations are presented for new and young firms expecting to hire more than 20 employees in the coming five-year period (high growth expectations). High-growth firms, or gazelles, have been shown to account for a disproportionate share of new employees and are consequently important for future growth.[9]

The most growth oriented nations report shares of TEA around 15 percent, whereas the share of those at the other end of the spectrum is approximately 3–5 percent. Compared to the numbers reported last year, there are fewer countries in 2015 where over 15 percent of the entrepreneurs expect to hire more than 20 employees in the coming five-year period, whereas the number of countries where the share is below five percent has increased. It signals that optimism among entrepreneurs has decreased. Again, countries with the lowest growth expectations have either been severely hurt by the economic crisis (e.g., PIGS group) or can be found among smaller countries, often belonging to the group of welfare countries (Finland, Norway,

8. *Davidsson et al. (2012).*
9. *Henrekson and Johansson (2010).*

Figure 2.10: TEA distributed on age groups 2013–2015



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain.

Netherlands and Sweden). Furthermore, in the small EU country group, the share claiming that they will expand their working force is relatively low, despite improving in other dimensions of entrepreneurship.

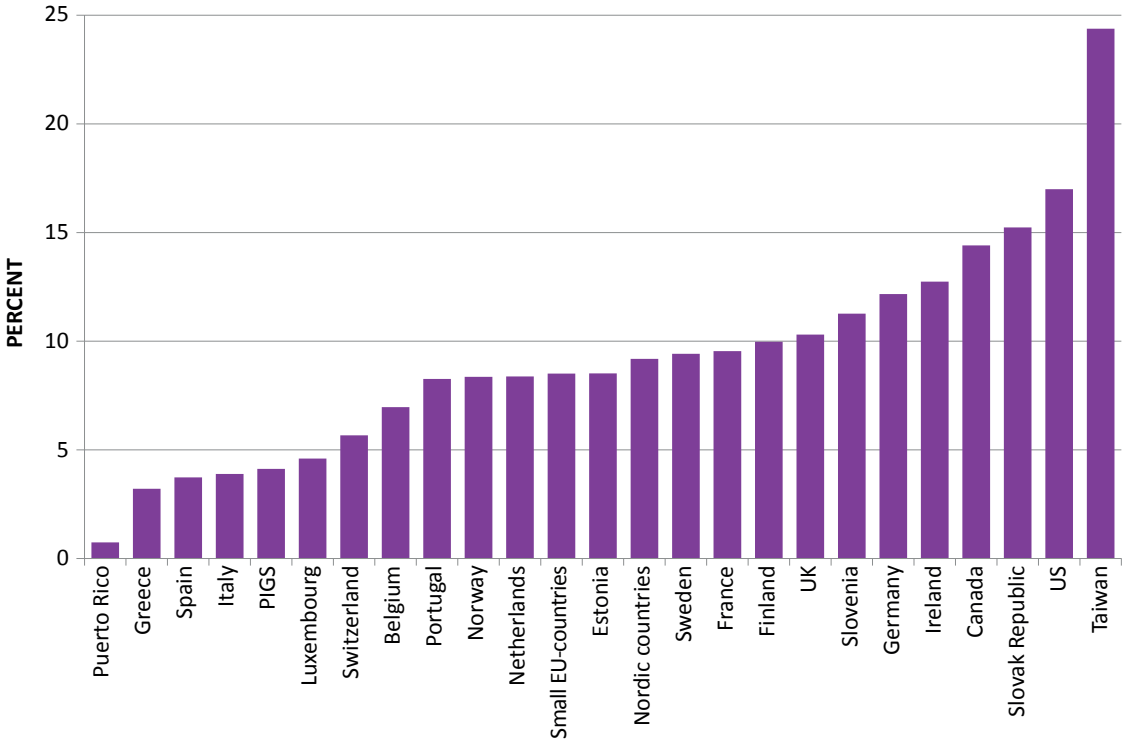
Anglo-Saxon countries, together with a few from Eastern Europe and Taiwan, dominate the top performers. Interestingly, Germany is ranked as the sixth most growth-oriented economy and has improved its position in recent years. Similarly, several of the Nordic countries, including Sweden, have moved up in the ranking of high-growth expecting entrepreneurs among entrepreneurs. These countries, not least Germany, have also undertaken important reforms to enhance flexibility in their respective labour markets.

MARKET CONDITIONS AND INNOVATIVENESS

When asked about the market conditions facing entrepreneurs, all countries (except Ireland) report that more than 80 percent of the entrepreneurs have at least a few competitors, whereas 13 of the 24 countries are dominated by entrepreneurs who face competition from no or few other businesses (Figure 2.12a). That finding signals a strong market position for those countries that is likely to be based on specialised and unique products and services. Germany, other small EU countries, Sweden, the UK and the US fall into this group. Note also that one of the PIGS countries – Portugal – reports a share above 50 percent, whereas Greece, Italy and Spain fall below that level. Overall, the emerging picture is somewhat mixed; approximately half of the innovation-driven countries seem to have entrepreneurship that is more of an imitative character, and the remaining half seems more oriented towards innovative entrepreneurship. When adopting a three-year average measure to avoid annual swings, the shares remains more or less intact, but the position of the respective country may change (Figure 2.12b).

Having few competitors does not necessarily translate into a high level of innovativeness because competition is highly contingent upon institutions and the extent to which competition works and is prioritised by policy makers. Introducing new products or services

Figure 2.11: Job growth expectations for early-stage entrepreneurs, 2013–2015
Share of TEA where entrepreneurs expect to hire 20 or more employees within five years



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for France is based on data for 2013 and 2014.

into the market and thereby fostering product variety for customers and contributing to national competitiveness is a vital ingredient in growth that is often attributed to entrepreneurs, as the agents of change who contribute with radical and disruptive innovations.

To capture novelty, GEM also asks entrepreneurs whether their product or service is new to some or all customers to complement the above information about competitors. Figure 2.13a reveals that a somewhat larger number of countries claim that their entrepreneurs have come up with innovative products that are new to all customers in 2015. For eleven countries, more than 50 percent of the entrepreneurs report that their product or service is new to either all or some customers. Hence, the numbers of countries are approximately the same, but the ordering between countries reveals some dramatic changes. The PIGS-countries move up the ladder primarily because a very large share of Italian entrepreneurs claim themselves to have unique products. Small EU-countries are again highly ranked, as are the UK and Ireland. In general, Germany and the US are less well off when looking at innovation, as are the Nordic countries. A similar picture emerges when we look at three-year averages (Figure 2.13b).

INTERNATIONALISATION

Internationalisation measures the extent to which early-stage entrepreneurs sell to customers outside their domestic market. In general, serving international markets signals both high ambitions and international competitiveness of a country's early stage entrepreneurs. As shown in Figure 2.14a, in 6 of the 24 countries, about 50 percent of new and young firms have no sales at all outside their domestic markets, and in 15 countries, more than 30 percent of entrepreneurs lack customers abroad. Still, this is an improvement in comparison with 2014. Only in three countries does the share of entrepreneurs having more than 25 percent of their customers abroad exceed 30 percent. Hence, there are signs of improvement, but the degree of internationalisation is still quite low in the group of new and young firms (TEA).

Figure 2.12a: Competition 2015
How many businesses offer the same product? Share of TEA

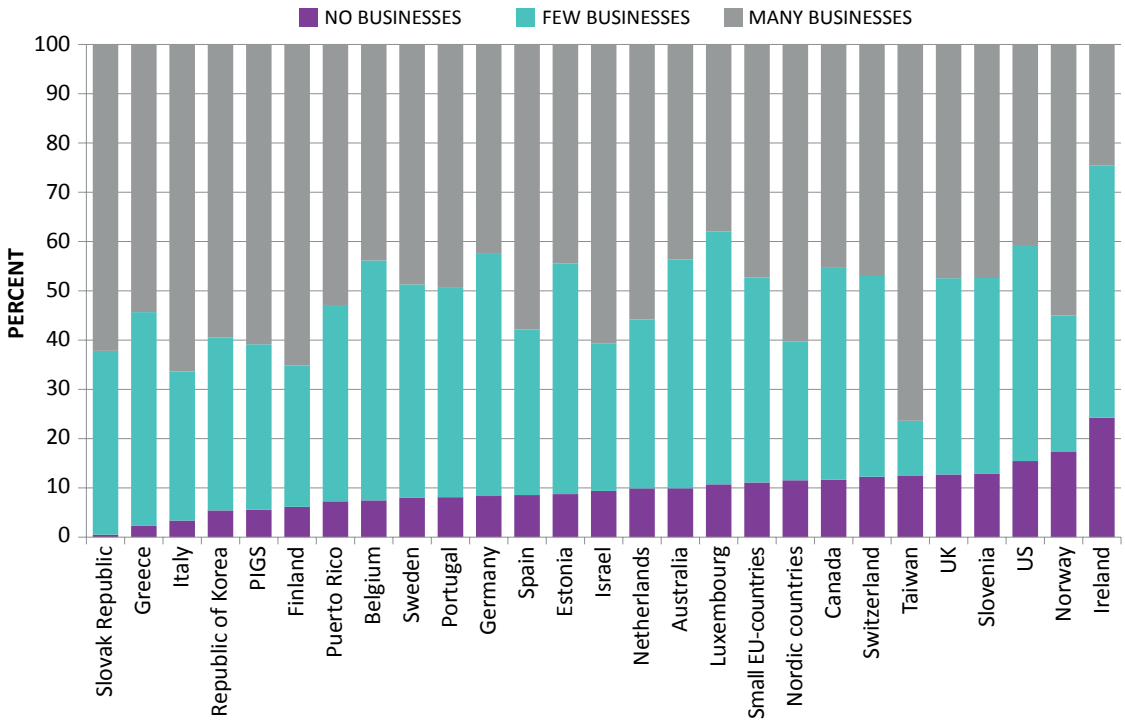
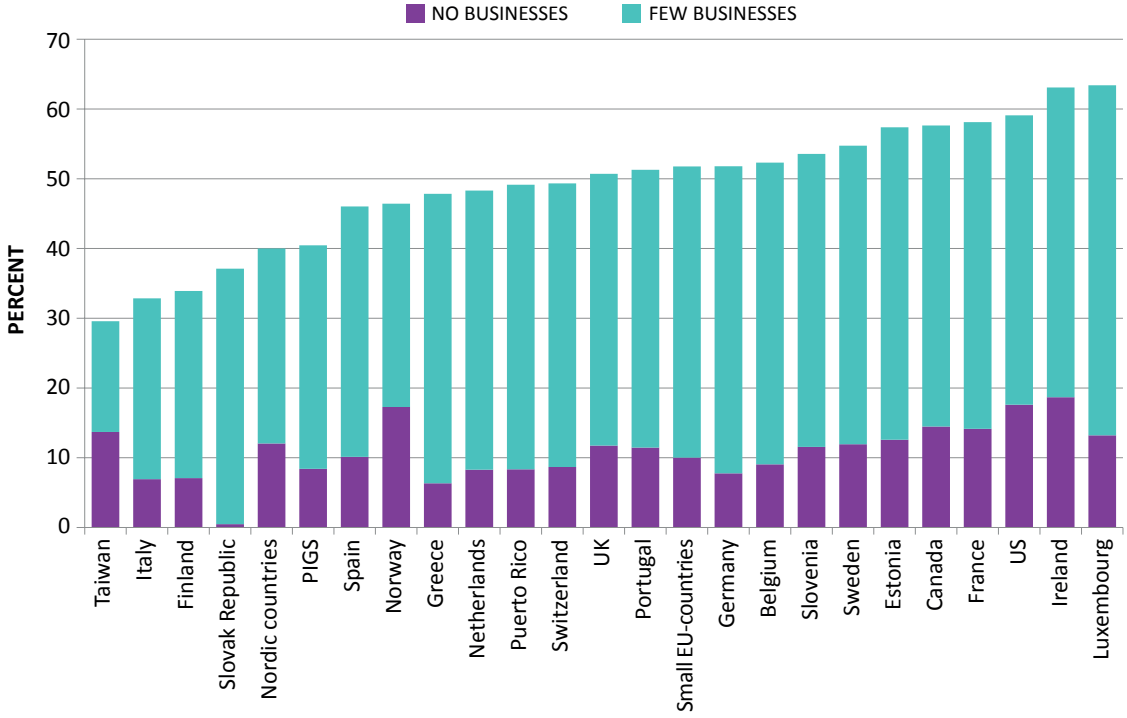


Figure 2.12b: Competition 2013–2015
How many businesses offer the same product? Share of TEA



Note Figure 2.12a: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain.

Note 2.12b: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for France is based on data for 2013 and 2014.

Figure 2.13a: Innovative products for early-stage entrepreneurs 2015
Share of TEA whose products are new to …

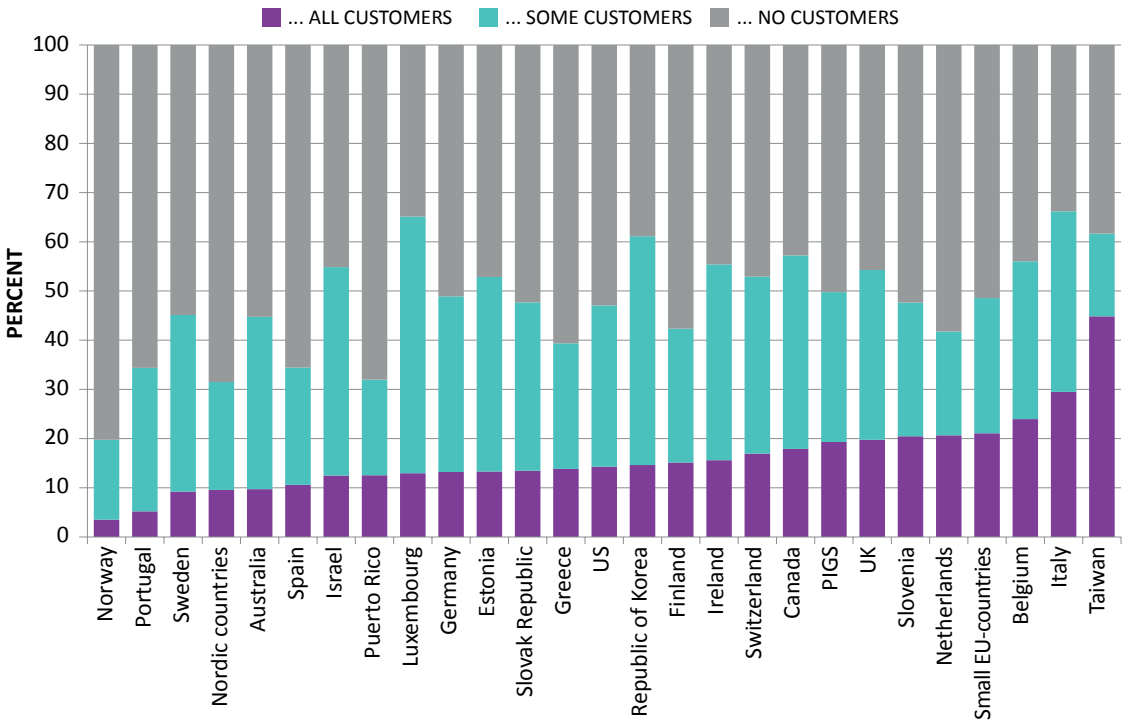
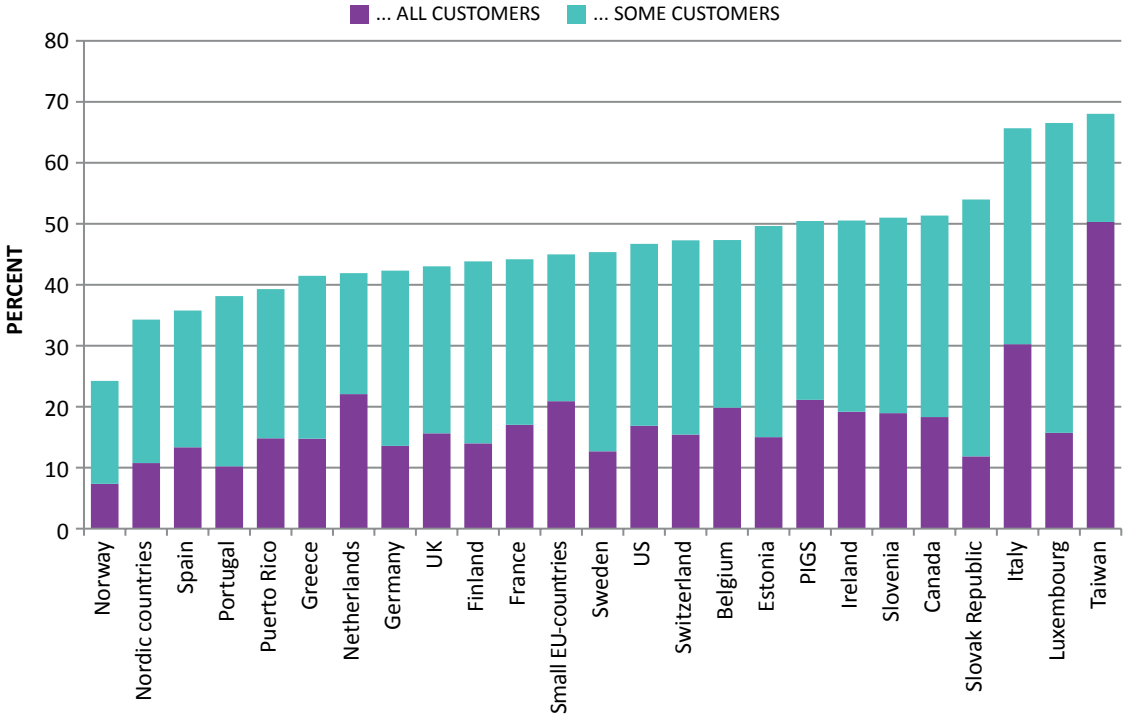


Figure 2.13b: Innovative products for early-stage entrepreneurs 2013–2015
Share of TEA whose products are new to …



Note Figure 2.13a: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain.

Note 2.13b: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for France is based on data for 2013 and 2014.

One would expect smaller countries to have a larger share of their customers abroad, given the limited size of their domestic markets. However, the picture is quite mixed, although a fairly large number of small countries are among those most internationalised, as shown in Figure 2.14b. However, small PIGS-countries have a low degree of internationalisation, as do the Nordic countries, whereas the US is among countries with the most internationalised entrepreneurs. The difference among smaller countries' internationalisation is likely to mirror differences in industrial structure, firm size distribution and traditions in the respective country. However, it may also reflect a low awareness of the importance to enter markets beyond domestic borders. In a process of increased globalisation where domestic market shares can be expected to shrink due to intensified competition, it is of vital importance to also have skills in new and young firms to penetrate foreign markets.

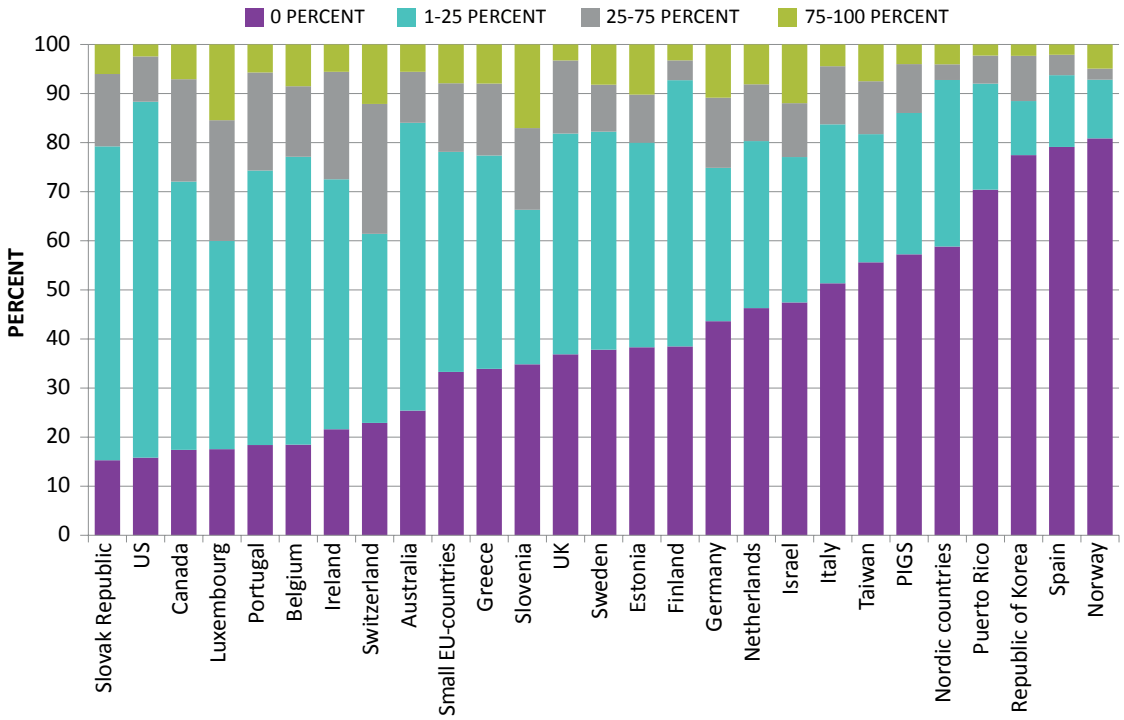
2.3 ENTREPRENEURIAL ATTITUDES

Every individual has the potential to become an entrepreneur. Some will venture into entrepreneurship, while others – for various reasons – will not. Thus, it is important to understand how individuals perceive their abilities and whether societal attitudes toward entrepreneurship are likely to influence the occupational choice between becoming an entrepreneur or a wage earner.

INTENTIONS, OPPORTUNITIES AND CAPABILITIES

Entrepreneurial intentions are an important measure of potential entrepreneurship in a society; in the GEM study, these are represented by the percentage of individuals who expect to start a business within the next three years. In innovation-driven economies, there seems to be an increase in entrepreneurial intentions between 2004 and 2015 for most countries, with Sweden being the exception (Figure 2.15). The levels and magnitude of change differ: France and the US are shown to have the highest levels, followed by PIGS-countries, small EU-countries, Sweden and the UK, whereas Germany and the Nordic countries trail behind. China has a distinct negative trend, likely reflecting that much of the previous entrepreneurship was necessity-based and has been declining since 2004 (see Figure 2.5a), and probably also a business cycle effect.

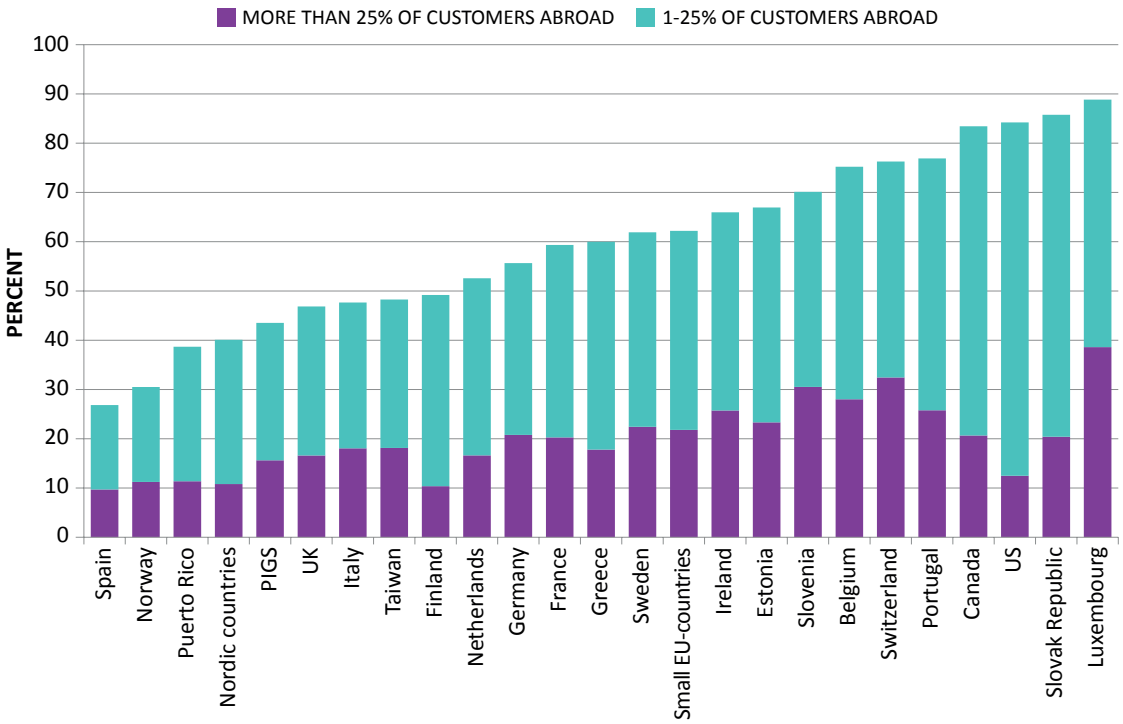
Figure 2.14a: International orientation for early-stage entrepreneurs 2015
TEA distributed on share of customers abroad



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain.

Figure 2.14b: International orientation for early-stage entrepreneurs 2013–2015

TEA distributed on share of customers abroad



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for France is based on data for 2013 and 2014.

A conceivable source for an individual to adopt positive views on entrepreneurship is through previous contacts with entrepreneurs or by knowing someone who has actually started a firm recently. We know that norms and cultures concerning economic activities are formed by the extent of people being engaged in similar behaviour.[10]

Figure 2.16 illustrates the percentage share of individuals in the respective country who know someone who has started a business in the past two years. Within all countries, a sizeable share of the adult population does know someone who has been involved in setting up a company. The range 30–50 percent seems most prevalent among the innovation-driven countries. A trend-wise decline can be observed in Germany, France, the US and the PIGS-countries, despite the entrepreneurial wave and focus in many countries. The UK has experienced the opposite with a positive trend, whereas the pattern is ambiguous in China, small EU-countries, the Nordic countries and Sweden.

Turning to the perceived opportunities that individuals claim they can identify in their neighbourhood, several interesting features emerge from Figure 2.17. First, traditional welfare countries, such as the Nordic countries and Sweden, rank highest and have seen an increase over the time period examined, particularly Sweden. A remarkable share of almost 70 percent of Swedes claim that they can identify good business opportunities. Next in line are the US, the UK, Germany and small EU-countries. In China and France, approximately 30 percent claim that they can identify possibly profitable business opportunities, and PIGS-countries have been in a declining phase since 2004–2007. Business cycle effects seem to influence how business opportunities are perceived. Hence, both of what has been coined as "cuddly capitalism", as represented by the welfare states, and "cut-throat capitalism" (the UK and the U.S.) seem to be advantageous for defining entrepreneurial opportunities.[11] This suggests that there is no one-size-fits-all avenue for making individuals aware

10. Lindbeck and Snower (2002).

Figure 2.15: Entrepreneurial intention
Percentage of 18–64 year old population (individuals involved in any stage of entrepreneurial activity excluded) that intends to start a business within three years

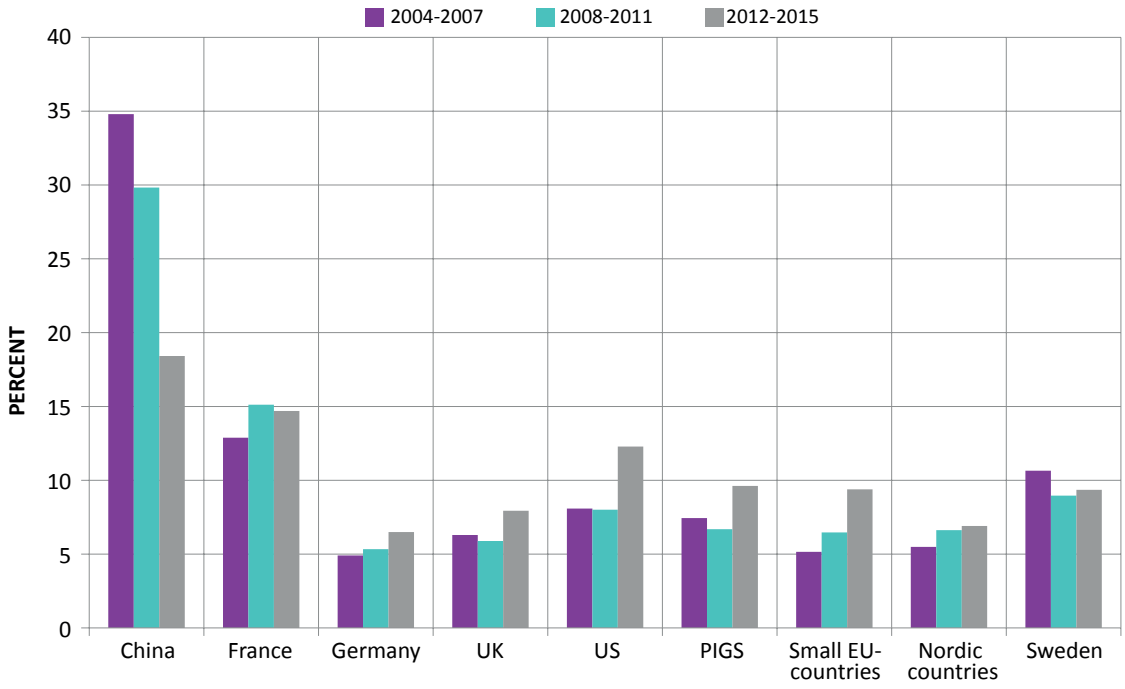
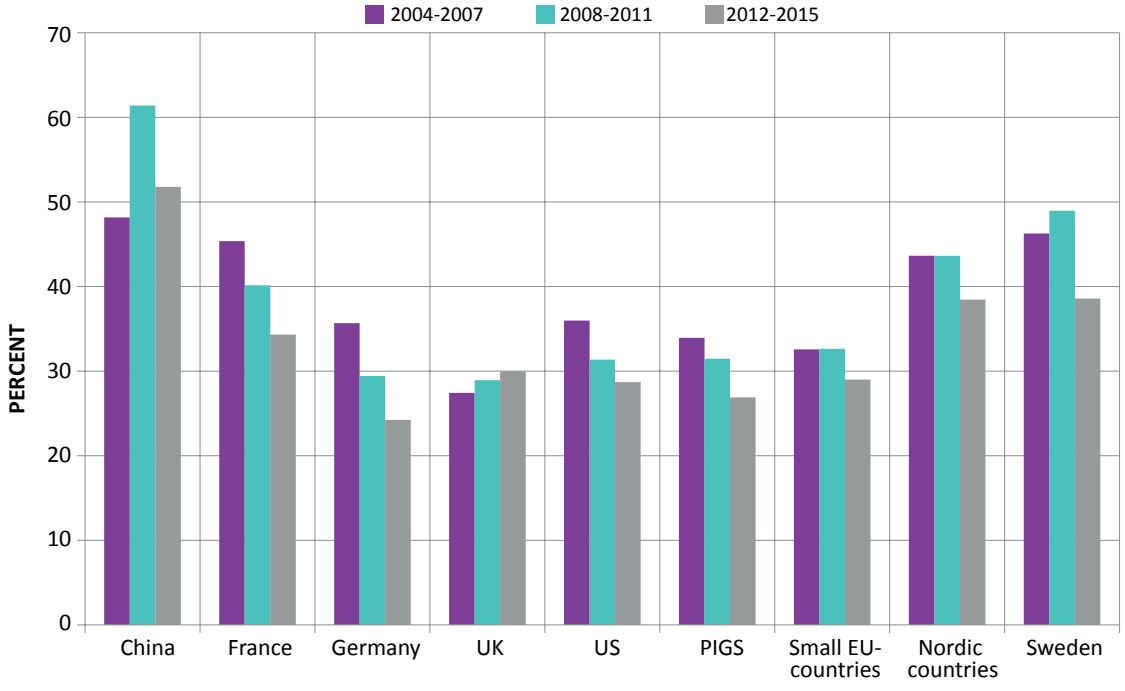


Figure 2.16 Acquaintance with start-up entrepreneur rate
Percentage of 18–64 year old population that personally knows someone who started a business in the past two years



Note Figure 2.15 and 2.16: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

Figure 2.17: Perceived opportunities
Percentage of 18–64 year old population that perceives good opportunities to start a firm in the area where they live

Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

of entrepreneurial opportunities. Second, the level of perceived opportunities differ across countries (basically twice as high in the welfare countries compared to larger EU economies), but in most countries, they have risen since 2004–2007, notwithstanding a few temporary setbacks for individual years in several countries. Hence, economies seem to be entering a more entrepreneurial regime.

The increase in individuals' subjective perception of their ability to identify entrepreneurial opportunities is however not paralleled by their perceived capabilities of starting and running a business (Figure 2.18). There is no clear trend over time, and the levels are generally much lower. About 35–40 percent of the adult population believes that they have the ability to set up and manage a firm. Interestingly, two countries do not adhere to this general pattern: the UK and, in particular, the US Hence, whereas the welfare states (Nordic countries and Sweden) claimed a high capability in spotting entrepreneurial opportunities, their self-confidence in starting and running a firm is considerably weaker. For the UK and the US, the opposite pattern prevails. This suggests that the difference between these countries has to do with other factors, such as the institutional set-up for starting and exiting entrepreneurship.

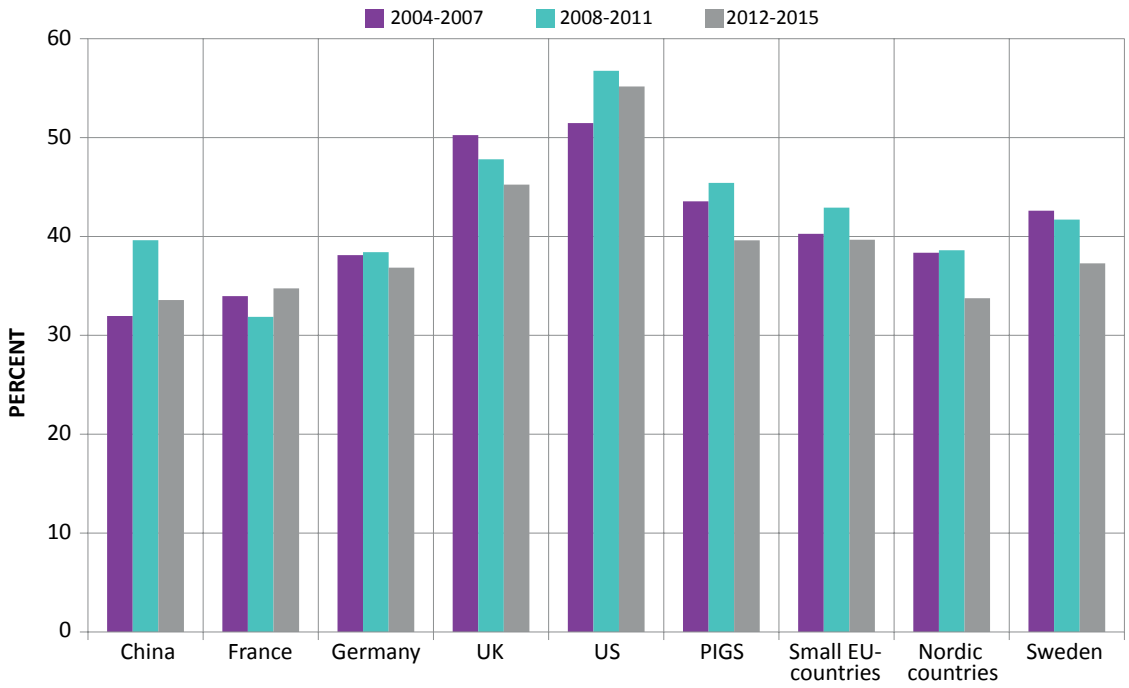
Exiting an entrepreneurial venture and the fear of failure and its long-term individual consequences can be expected to strongly influence entrepreneurship. If failure is something that stigmatises the individual socially and burdens them with long-term debt, the gap between being a wage earner and an entrepreneur will widen.

It has been claimed that the US is more lenient towards "a second chance" for those who have tried but failed as entrepreneurs. Indeed, some argue that failure could be positively related to individuals' human capital due to learning effects. The GEM data do not allow us to dig deeper into those issues, but as illustrated in Figure 2.19, there is a distinct difference between the US and other countries regarding fear of failure. The economic crisis that took off in 2008 seems

11. Acemouglu et al. (2012).

Figure 2.18: Perceived capabilities

Percentage of 18–64 year old population that believe they have the required skills and knowledge to start a business



Note: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

to have augmented the Americans' fear of failure, though the level is still between 5-20 percent lower than in the other countries. UK respondents are on par with the Nordic countries and Sweden. To summarise, it is likely that the lower level of fear of failure in the US is partly driven by institutional differences in relation to other countries, which seems to be a trigger for more entrepreneurial activities.

SOCIETAL ATTITUDES

We will conclude Chapter 2 with three graphs on the societal attitudes regarding entrepreneurial activity: whether the adult population in these countries sees entrepreneurship as a good career choice (Figure 2.20), whether they perceive considerable media attention for successful entrepreneurship (Figure 2.21), and the extent to which successful entrepreneurs have a high social status (Figure 2.22).

More than 50 percent in all countries would agree with entrepreneurship being a desirable career choice. The lowest levels are found in Germany, the Nordic countries and Sweden. There is no clear trend across the countries, but in China, Germany, PIGS-countries and small EU-countries, there is a diminishing share who view an entrepreneurial career as being a desirable occupational choice, though the levels differ.

Similarly, there is no clear trend for media attention in the majority of countries (Figure 2.21). The level varies between approximately 40 and 75 percent of the adult population claiming that stories of successful businesses are reported in media. The two largest economies – China and the US – have a considerably larger share than do the other economies, although Nordic countries and Sweden, together with small EU-countries, have a high share of respondents that claim media attention to be high.

Finally, and likely to be promoted by media attention, successful entrepreneurs enjoy a high social status in all countries, even though the span is quite large (Figure 2.22). The lowest rate is reported for the small EU-countries and PIGS-countries, whereas the level in remaining countries are roughly the same and the changes over time are small.

Figure 2.19: Fear of failure rate

Percentage of 18–64 year old population with positive perceived opportunities and indicate that fear of failure would prevent them from setting up a business

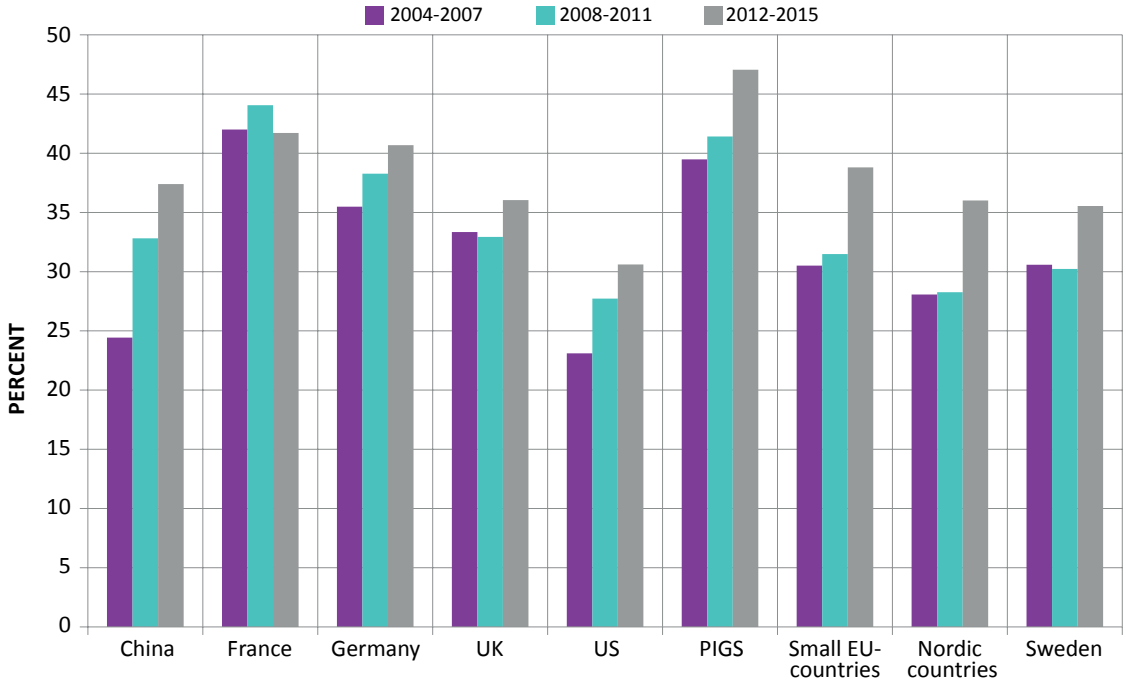
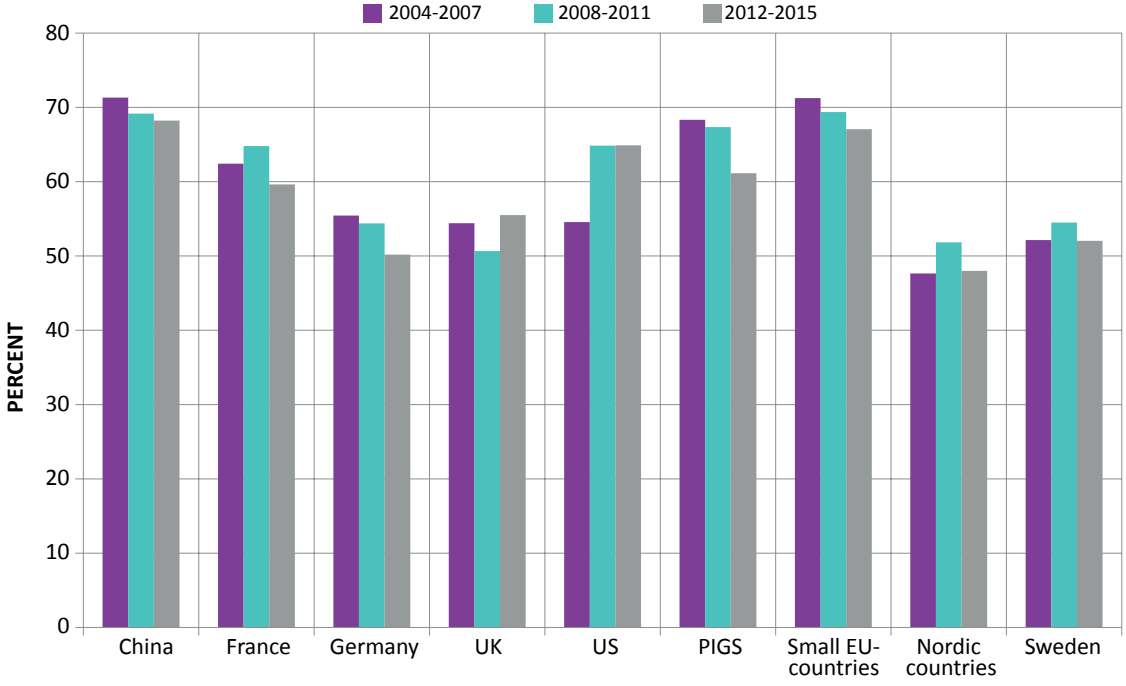


Figure 2.20: Entrepreneurship as desirable career choice

Percentage of 18–64 year old population that agree with the statement that in their country, most people consider starting a business a desirable career choice



Note Figure 2.19 and 2.20: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France is based on data for 2012 to 2014.

Figure 2.21: Media attention for entrepreneurship

Percentage of 18–64 year old population that agree with the statement that in their country, there are often stories in the public media about successful new businesses

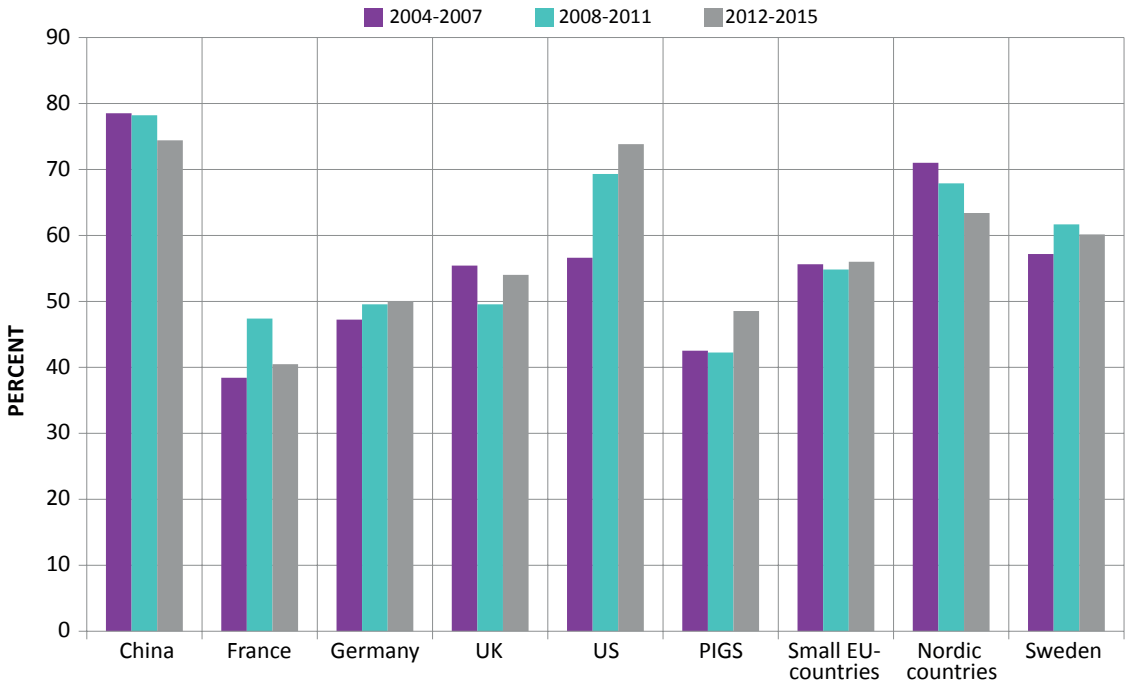
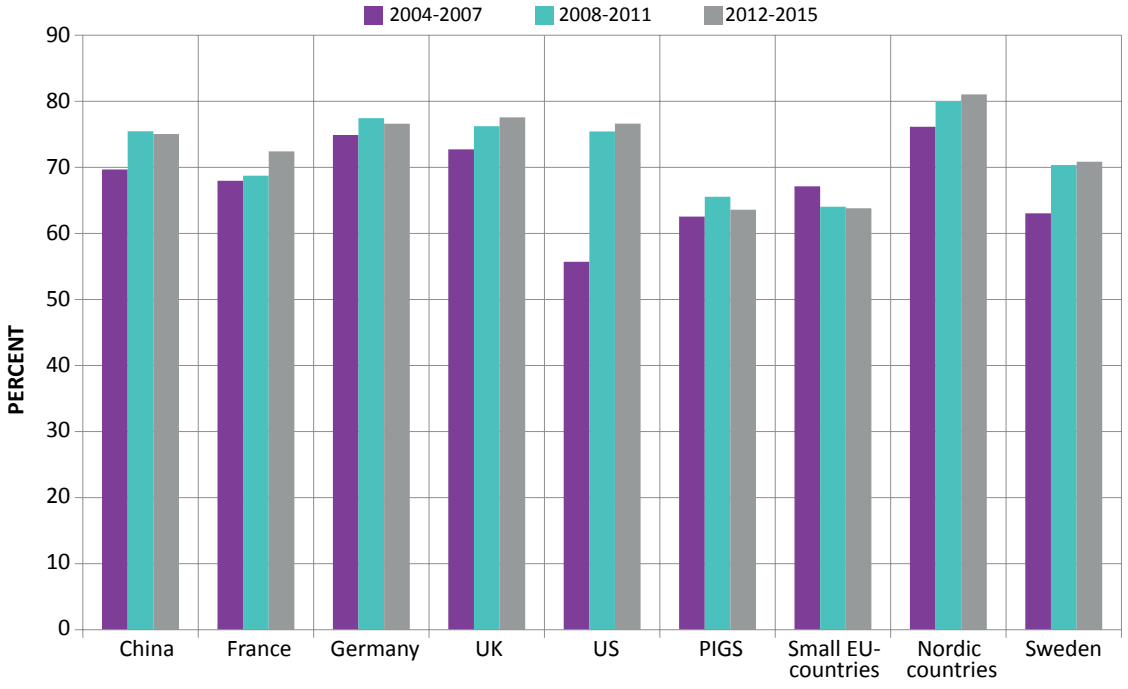


Figure 2.22: High status successful entrepreneurship

Percentage of 18–64 year old population that agree with the statement that in their country, successful entrepreneurs enjoy high status



Note Figure 2.21 and 2.22: Small EU-countries comprise Belgium, Ireland and the Netherlands; Nordic countries comprise Finland and Norway; PIGS comprises Portugal, Italy, Greece and Spain. Due to lack of data, the average for the final time period in France, USA and the Nordic countries are based on data for 2012 to 2014.

3

INTRAPRENEURS – ENTREPRENEURIAL EMPLOYEES

This chapter looks at intrapreneurship, i.e., entrepreneurship that occurs within existing, often large, companies. Thus, this issue has special relevance for Sweden, where there is a profound dominance of large companies. Intrapreneurship has been a key factor in strengthening the competitiveness of Swedish corporations.

Figure 3.1 shows the proportion of the adult population who define themselves as entrepreneurial employees; this is our definition of intrapreneurs. Obviously, the Nordic countries are doing well – Norway tops the ranking, the Nordic countries combined come in third place, Sweden is in ninth place, and Finland ranks somewhat lower (13) among the 24 innovation-driven countries. Also Anglo-Saxon countries – as well as Israel – are ranked highly.

On average, barely eight percent of the population in the Nordic countries state that they are engaged in intrapreneurship, the same percentage as in 2014. This number can be compared to the fact that six percent of the population are involved in early-stage entrepreneurship (TEA, see Figure 2.1). For Sweden, the corresponding proportions are slightly higher than six percent (intrapreneurship) and just above seven percent (TEA). In the United States, intrapreneurs constitute seven percent of the population, which is much lower than the share of entrepreneurs (about twelve percent). In particular, large EU countries show a modest level of intrapreneurship. Spain and Italy, as well as Greece, are at the absolute bottom, and for a significant number of countries, the level of intrapreneurship is approximately six percent.

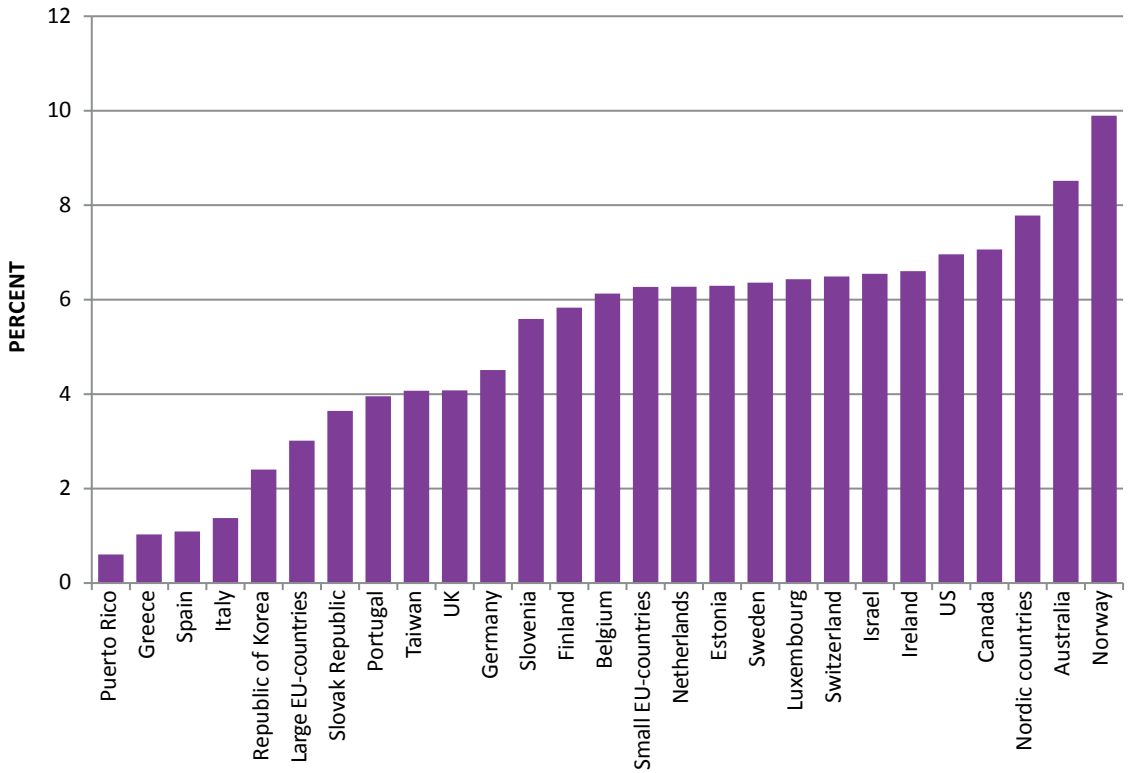
The ranking of intrapreneurship indicates that countries with Anglo-Saxon traditions and institutions are more extensively engaged in both intrapreneurship and entrepreneurship (at least in the US). Nevertheless, some welfare states have high levels of intrapreneurship, whereas the level of entrepreneurship is more modest. In part, these differences may be cultural, and a greater willingness to identify as an entrepreneur subsists in certain countries. The following section gives a framework for understanding intrapreneurship, its driving forces and its relation to entrepreneurship.

ENTREPRENEURSHIP AND INTRAPRENEURSHIP – ZERO SUM OR COMPLIMENTARY EFFECTS?

Professional creativity can manifest itself in several ways, including entrepreneurship and intrapreneurship.

Figure 3.1: Total intrapreneurial activity in 2015

Percentage of the population, 18–64 years of age, who actively managed and developed new activities for his/her employer within the last three years.



Note: Small EU-countries consist of Belgium, Ireland and the Netherlands; Large EU-countries consist of Italy, Spain, Germany and the UK; The Nordic countries consist of Finland and Norway.

The difference between them is that entrepreneurs mainly commercialise their ideas through own start-ups, whereas intrapreneurs develop new knowledge as employees in existing companies. Both entrepreneurs and intrapreneurs are crucial for knowledge development and are, in turn, a key to economic growth. The way in which the relationship between entrepreneurs and intrapreneurs manifests itself is mainly governed by two principal mechanisms.

First, regulations, laws, and access to capital, among other factors may act as disincentives for individuals who wish to become entrepreneurs. Instead, they can find an outlet for their creativity within the existing organisations and become intrapreneurs. Essentially, risk aversion can play a similar role, where intrapreneurs with good ideas are active within existing companies because they may be unwilling or unable to carry significant risk. Thus, entrepreneurship and intrapreneurship could serve as communicating vessels, i.e., if entrepreneurship is increasing, intrapreneurship will decrease and vice versa.

Second, entrepreneurs and intrapreneurs may complement and benefit from each other. Entrepreneurs can be stimulated by the ideas created within existing companies, and intrapreneurs could, in turn, learn from successful entrepreneurs. The dissemination of knowledge between new and existing businesses by, for example, social networking would – according to this view – lead to a positive correlation between entrepreneurship and intrapreneurship, i.e., if one increases, the other will as well. In addition, intrapreneurship can serve as an introduction to future entrepreneurship, which has been examined in a large and growing body of literature about the so-called spin-off companies.[12]

12. Andersson and Klepper (2013).

Figure 3.2: Correlation between entrepreneurship and intrapreneurship, 2014 and 2015, for all 50 countries

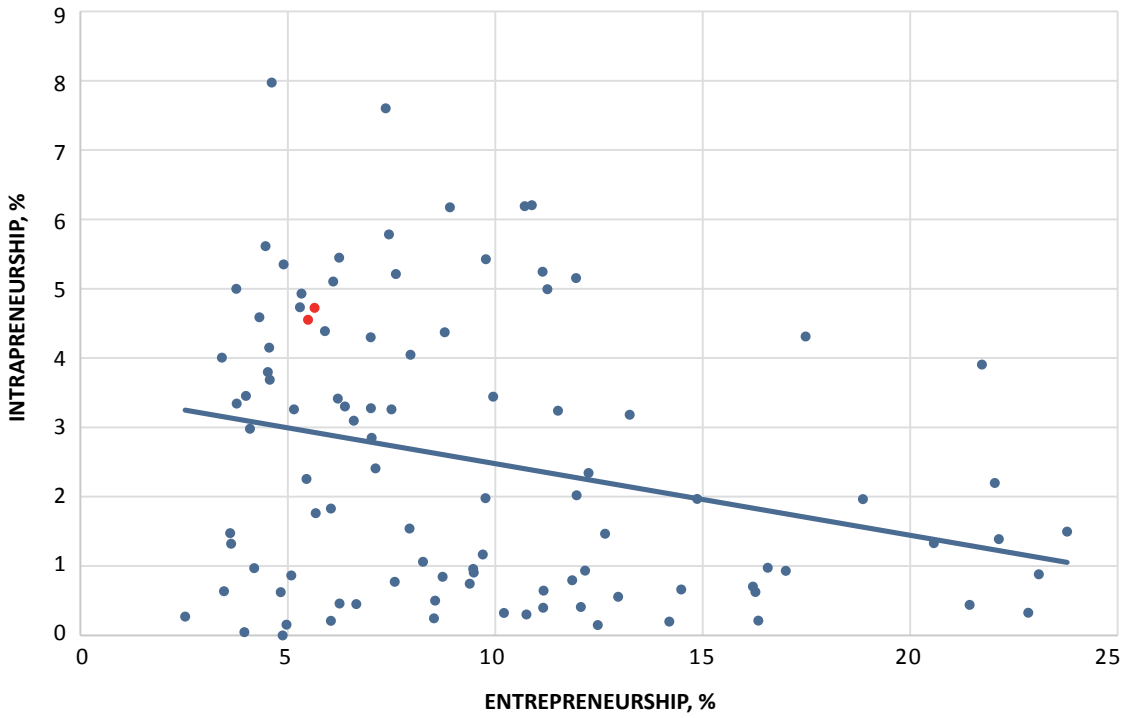
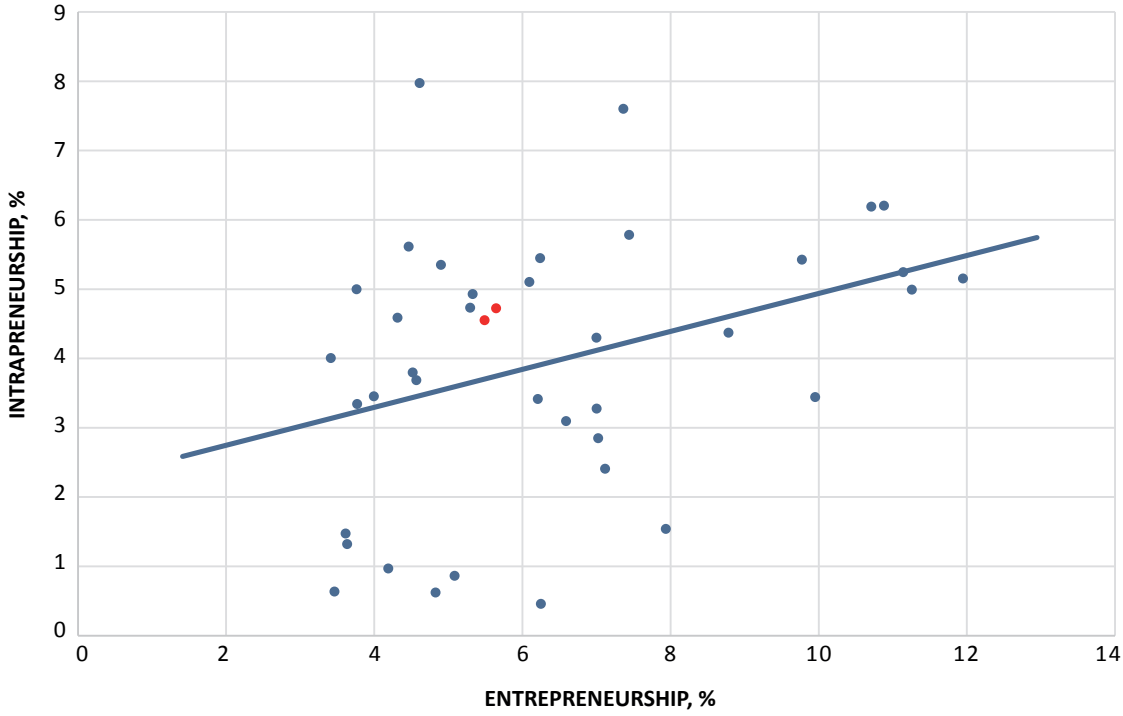
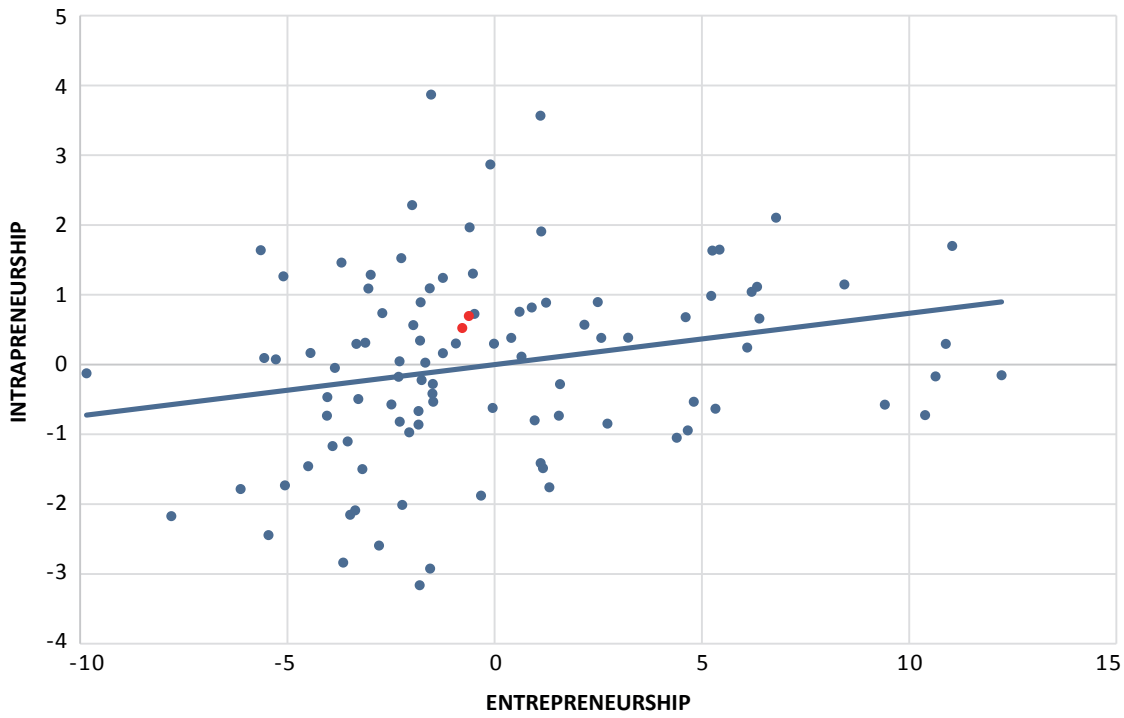


Figure 3.3: Correlation between entrepreneurship and intrapreneurship, 2014 and 2015, for innovation-driven countries



Note Figure 3.2 and 3.3: The red dots shows Sweden.

Figur 3.4: Correlation between entrepreneurship and intrapreneurship, 2014 and 2015, for all 50 countries while controlling for education and level of development



Note Figure 3.4 The red dots show Sweden. Note that both entrepreneurship and intrapreneurship variables are centered around zero.

In the end, it is an empirical question concerning which of these two effects that dominates. When we plot the proportion of intrapreneurs against the proportion of entrepreneurs in all 50 countries that participated in both the 2014 and 2015 Global Entrepreneurship Monitor (GEM) study of entrepreneurial activity, a negative correlation is revealed (see Figure 3.2).[13] In other words, a low level of entrepreneurship appears to go hand-in-hand with high levels of intrapreneurship and vice versa. The Swedish observations, marked in red, do not follow this pattern but show an almost even relationship between the number of entrepreneurs and intrapreneurs.

The countries presented in Figure 3.2 can be found in different parts of the world and differ in their development levels and cultural and institutional frameworks. Our study of all the countries together implies an obvious risk of comparing apples with pears. However, if we focus exclusively on the most developed countries – which, within GEM, is known as innovation-driven countries – an opposite pattern emerges, i.e., entrepreneurship and intrapreneurship appear to be positively correlated (see Figure 3.3).

From Figure 3.2 and 3.3, we can conclude that countries are too dissimilar to analyse the relationship between entrepreneurship and intrapreneurship without simultaneously controlling for their differences. An attempt at doing this is presented in Figure 3.4, where both the entrepreneurship and intrapreneurship variables are adjusted for differences in the countries' educational and developmental levels, before plotting the two variables against each other.[14]

The results indicate a weak positive correlation between entrepreneurship and intrapreneurship. Correspondingly, when the analysis is extended to include more nuanced educational data and access to early stage venture capital, the result remains the same.[15] The correlation test shows a relatively strong and statistically significant relationship.

13. *The figure shows the opportunity-based entrepreneurship, i.e., entrepreneurship driven by perceived business opportunities.*
14. *A value less than zero indicates a country with a lower proportion of entrepreneurs / intrapreneurs compared to the average of all countries in the figure, when controlling for differences in countries' education and development.*
15. *Education data from Barro, Robert and Jong-Wha Lee, 2013, "A New Data Set of Educational Attainment in the World, 1950-2010." Journal of Development Economics, vol 104, pp.184–198. Variable of access to early stage venture capital comes from the Global Entrepreneurship Monitor.*

Sweden is pretty close to the zero mean value in both dimensions. From an international perspective, Swedish survey respondents are about as entrepreneurial and intrapreneurial as we would expect, given the education and development level in Sweden. Additionally, a slight tendency to be above the international trend for intrapreneurship and under the trend for entrepreneurship can be discerned.

It might be risky to draw far-reaching conclusions on the basis of this simplified analysis, but a one-sided focus on stimulating entrepreneurship could also lead to errors. Instead, focus should be put on creating a business climate that stimulates creativity and the diffusion of knowledge, regardless of whether this takes the form of entrepreneurship or intrapreneurship. This includes facilitating individuals moving between employment and self-employment, reducing the regulatory burden and increasing the focus on raising the knowledge level of our students. In the end, intrapreneurship is a way of providing the business sector with highly competent employees.

It is important to note that this type of analysis can provide a partial explanation for how Nordic-style welfare states can maintain international competitiveness, despite the previously noted lower level of entrepreneurship. International research perceives entrepreneurship and, to some degree, self-employment as mechanisms for the business sector to acquire and disseminate knowledge throughout the economy via commercialisation. Active intrapreneurship can, in principle, make innovative knowledge available in a corresponding way. Nevertheless, the exact mechanisms underlying such a process must be subject to future research.

4

CONCLUSIONS AND SOME POLICY REFLECTIONS

The importance of entrepreneurship in its different forms – start-ups, young firms, intrapreneurship and social entrepreneurship – in promoting dynamism and growth has been increasingly acknowledged over the years. Large incumbents and young and small firms complement each other. The former rarely engage in disruptive innovations, their incentive structure does not favour excessive risk-taking. On the other hand, incumbents continuously improve and update their existing products, and they also constitute a "market for ideas" for young and smaller firms. The latter are more prone to come up with new products and services that may challenge existing firms and structures, sometime leading to a dominant market position; Google, Microsoft, and Spotify are examples of this. Over time, competition will however evolve, i.e. even if firms tend to dominate an industry at certain periods they are likely to face intensified competition over a somewhat longer time span; Ford, IBM, and Nokia are obvious examples of this source of dynamic competition. This emphasises the importance of an ongoing inflow of new firms to the market where ideas are tested and selected. Hence, keeping entry barriers low is of utmost importance for dynamic competition, innovation, and growth in the long run.

GEM (Global Entrepreneurship Monitor) provides information on a global scale regarding entrepreneurial activity, ambitions and attitudes surrounding entrepreneurship. The first investigation took place in 1999 covering only 10 countries. Today GEM has grown to the world's largest and most extensive entrepreneurship survey embracing between 60 to 75 countries during the last years. The data gathered in the 2015 survey covers 62 countries and is based on approximately 181 000 interviews. All together, these countries represent 90 percent of global GDP and about 72 percent of global population. That makes GEM by far the largest international analysis of entrepreneurship.

Still, as in many other data sources of entrepreneurial activity, one may question to what extent GEM captures genuine and creative entrepreneurship and not just imitative self-employment. One of the strongholds with the GEM-data is that entrepreneurship is distributed on both opportunity-based and necessity-based entrepreneurship. The former can be characterised as firms starting to realise a perceived opportunity (a pull factor) whereas the latter has to do with the lack of alternative occupations. Hence, in order to avoid unemployment, a firm is started (push factor). In addition, all data are categorised on the participating countries level of development in order to facilitate comparisons. It is a well-established fact that entrepreneurship varies with the stage of

development. In these countries, a considerably larger part of the activity can be attributed to necessity-based entrepreneurship compared to the innovation-driven countries. This holds irrespective of whether we are studying men's or women's entrepreneurship.

In this concluding chapter we will focus on some policy implications that follows the statistics presented in Chapters 2 and 3. Sometime we will involve all the participating countries in the analysis presented below, sometime we will restrict the illustration to the innovation driven economies. We will also discuss (updated) results from last year's policy conclusion.

4.1 ENTREPRENEURIAL TRAJECTORIES – A SUMMARY

ENTREPRENEURIAL ACTIVITY

Looking at the development of entrepreneurial activity (TEA) during the last 10-15 years, a trend-wise increase can be observed over the period 2004-07 to 2012-15 for most countries/country groups, with some notable exceptions: China has witnessed a marked decrease in entrepreneurship in the most recent period and is now almost on par with the US The pattern of China's TEA also differs from the innovation-driven economies where there seems to be a spike in the years 2008-2011, i.e. in the midst of the economic crisis, whereas several other countries then suffered a slight setback or TEA remained constant as compared to 2004-07. It is not unexpected that TEA drops as countries develop, however the extent of the decline in China is somewhat surprising.

With exception of China and the Nordic countries, no country or country-group among the innovation-driven economies has experienced a continuous decline in TEA in the last decade. In fact, entrepreneurship has grown throughout the period in small EU-countries, Sweden and UK despite the economic turmoil and staggering demand. Note also the low level of TEA is in the larger EU-economies France and Germany, approximately on par with the PIGS-countries.

Most of the changes in entrepreneurial activity can be attributed to the very young – nascent – firms. Nascent entrepreneurial activity is important since it captures an economy's ability and possibility to undertake market oriented experiments of importance for overall industrial dynamics. The picture that emerges is mixed; in some countries there has been a substantial increase. In particular, Sweden where nascent entrepreneurship has doubled between 2008-11 and 2012-15 stands out. Still, the US level is almost twice as high. Also the UK and other small EU-countries have enjoyed increases in their nascent entrepreneurship.

Instrumental in fostering an entrepreneurial economy is access to finance in early stages of new endeavours. Informal capital – family, friends, and fools – or business angels have been shown to be one critically important group in the finance structure. There is considerable variation across countries in the share of population that have acted as business angels. We see increases in Germany, the small EU-countries, the UK and the US, while the opposite development prevails in China, France, and the Nordic countries and to some extent in Sweden. In the case of Sweden the fall has taken place from a very high level – actually the highest among innovation-driven countries, even exceeding the US, in 2008-11.

Taking a closer look at the Swedish development, there was a sharp increase in the share of population engaged in angel investments between 2004 and 2011, followed by a deep dip in 2012 (albeit from a high level). One reason for the dip may have been that the government introduced a heavily subsidised saving form as of 1 January 2012 directed towards listed companies. Angel investment bounced back in 2013 but the level stayed significantly lower than in 2011. In late 2013 (1 December) a tax incentive for investments in non-listed firms was launched, allowing private investors to deduct 50 percent of their investment up to 1 300 000 SEK (about 140 000 Euro) from their income. Since then an increase in angel investments can be observed. The lesson to learn is that differences in the treatment of various savings or investment vehicles are likely to influence the allocation of investments. Hence, neutrality is important, provided that such reallocation is not the objective of an implemented reform.

Regarding the type of entrepreneurship and the gender distribution it is obvious that necessity-based entrepreneurship is highest in China and the PIGS-countries, i.e. the development stage and business cycle effects can be traced. The Nordic countries have the lowest level of necessity-based entrepreneurial activity, while it has been on the rise in several other countries, reflecting the business cycle

effect. Still, for most countries, opportunity-based entrepreneurship dominates, hovering around 80 percent (though in China the share is about 60 percent).

There are no signs of closing the gender gap present in any countries/country groups. The highest share of female entrepreneurship is found in the US (and China), followed by large EU-countries and PIGS. In general, close to twice as many men compared to women are involved in entrepreneurial activities. This is partly related to the distribution of entrepreneurship over different industries, which remains quite stable over the years. However, this is only part of the explanation.

ENTREPRENEURIAL AMBITIONS

Turning to ambitions, we showed in Chapter 2 that Anglo-Saxon countries together with a few from Eastern Europe and Taiwan are the top performers measured in terms of expected employment growth. Moreover, Germany is ranked as the sixth most growth oriented economy and has improved its position over the last years. Similarly, several of the Nordic countries, including Sweden, have moved up in the ranking of high-growth expecting entrepreneurs. A number of countries, least not Germany, have undertaken important reform to enhance flexibility, e.g. in their respective labour markets.

Still, growth ambitions by European entrepreneurs fall below those of entrepreneurs in the US and several Asian economies. Many European countries lack some of the instruments considered necessary to make firms grow. One is stock options where taxation is high in most EU-countries. The provision of different financial support structures could also have a more distinct focus on growth and internationalisation.

We have shown that for almost 50 percent of the innovation-driven economies, a majority of entrepreneurs claimed that they had come up with innovative products that were new to some or all of the customers in 2015. This signals a strong foundation for international competitiveness and roughly correlates with how entrepreneurs report their market position in their respective home countries. Yet, the degree of internationalisation is still quite low among new and young firms in the innovation driven economies, even though improvements have occurred over the years.

ENTREPRENEURIAL ATTITUDES

Entrepreneurial activities and ambitions can be expected to partly be driven by how individuals perceive their abilities and whether societal attitudes toward entrepreneurship are favorable, thereby likely to influence the occupational choice between becoming an entrepreneur or a wage earner.

A first indication of how entrepreneurship is viewed relates to whether a large share of the population plans to start a firm within the coming three years. In the innovation-driven economies there seem to be an increase in entrepreneurial intentions between 2004-07 and 2012-15 (between 6-15 percent of the population report that they plan to start a firm) in most countries. China is the exception where intentions have dropped to a level comparable with highest levels reported for innovation-driven economies. There are also between 25-49 percent of the population that claims that they know an entrepreneur, which supposedly spurs others to take the same path.

An interesting feature is the relationship between perceived opportunities and perceived capabilities. As shown in Chapter 2, traditional welfare countries such as the Nordic countries together with Sweden rank highest with regard to detected opportunities and have also seen an increase over the time period examined, particularly Sweden. A remarkable share of almost 70 percent of Swedes claim that they can identify good business opportunities, which is about twice the share compared to countries like France, Germany, PIGS and the UK. Moreover, it is roughly 20 percentage points higher than in the US. On the other hand, the US is top ranked when it comes to perceived capabilities of starting and running a new firm, followed by the UK. Remaining countries/country groups report a considerably smaller share who claim they have the competence to start and run a business. Note that China ranks low in both of these dimensions. US also reveals a considerably smaller share that reports fear of failure as an obstacle for starting a firm, whereas PIGS have the highest share.

Finally, in regards to attitude variables like a desirable career choice or whether entrepreneurship is associated with high status, the changes over time are marginal but the levels between countries and country groups varies. In the Nordic countries and Sweden a relatively low share say that entrepreneurship is a desirable career, while China, small

EU-countries, PIGS and the US give this much more positive weight.

4.2 SOME REFLECTIONS ON POLICY IMPLICATIONS

The analysis in this report has primarily been descriptive, with the objective of comparing nations along various dimensions related to entrepreneurship. Nevertheless, we would like to conclude with some policy considerations, in addition to those briefly referred to above. We will start with a comparison of countries representing different traditions and also differences in the institutional set-up.

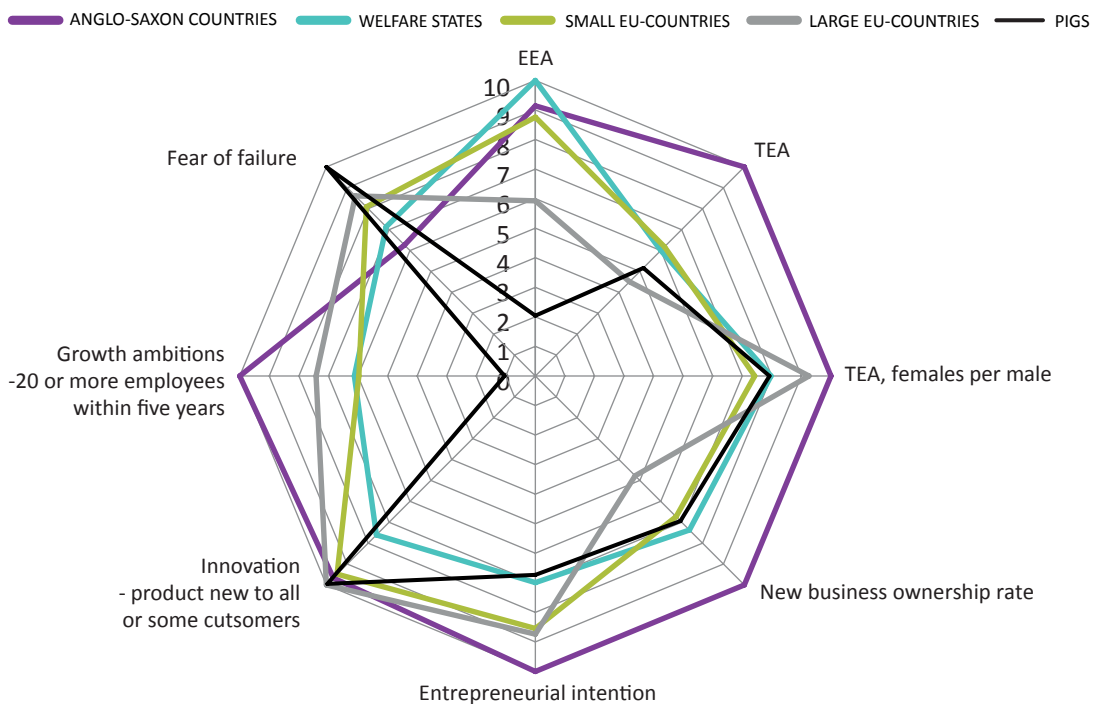
Sweden is part of a group of countries that is usually defined as welfare states with well-developed social security systems, and a small risk of completely ending up without any form of livelihood. On the opposite end to these so-called welfare states we tend to set the US and, more generally, the Anglo-Saxon nations. They are to a larger extent marked by clearer economic incentives for starting and running a business. Then there is the so called Continental model, where countries supposedly exercise more central control but also entail significant characteristics of the traditional welfare state. France is often considered a typical example.

The spider chart below compares the various groupings in which Sweden and the Nordic countries are merged into the group welfare states. The Continental model is represented partly by the larger EU-countries (France and Germany) and partly by the smaller EU-countries (Belgium and the Netherlands), even though it could be argued that the latter falls somewhere between the welfare states and the Continental model. The Anglo-Saxon group comprises Ireland, the UK and the US. Finally, we have the countries hardest hit by the crisis, i.e. the PIGS-countries.[16]

As shown in Figure 4.1, there are some interesting differences, even though of a relatively marginal nature, that appear between the welfare states and the EU countries. The entrepreneurial vein is shown to be weak in the larger EU-countries, which manifests in a lower TEA and low rate of new business ownership, but also in a considerably weaker intrapreneurship (EEA).

The small EU-countries and the welfare states perform very similar. Both have relatively modest growth ambitions and are a bit weak regarding women

Figure 4.1: Entrepreneurship for five different types of countries, 2015



16. *Only data for 2015, and in some cases 2014, is used in figure 4.1. We do not include China since their level of development deviates from the other country groups.*

entrepreneurship. The welfare states are however considerably weaker in terms of having a low share of the population saying that they are planning to start a new firm, and slightly stronger than the other country groups in intrapreneurship.

Instead, more dramatic differences can be found in the Anglo-Saxon group, together with PIGS-economies, as compared to the other groups of countries. In all dimensions that measure entrepreneurial activity the Anglo-Saxon group is shown to outperform the others – TEA, new business ownership, women's entrepreneurship and future potential entrepreneurs (intention to start a business). Only when intrapreneurship is considered can small EU-countries and welfare states compare themselves to the Anglo-Saxon group. Similarly, growth ambitions are far greater in the latter group, while the level of innovation appears to be roughly the same. The fear of failure is also noticeably lower among the Anglo-Saxon entrepreneurs.

Also, PIGS-countries deviate in a number of entrepreneurial dimensions as compared to the other country groups, reflecting the deep recession that has taken place in those countries. In particular, growth ambitions and intrapreneurship are reported at very low levels, whereas fear of failure is particularly high among PIGS. Still, there are also a few positive indicators, primarily concerning innovative ambitions but also the comparable levels of TEA and entrepreneurial intentions. Hence, despite the extreme economic hardships in some of the PIGS, there seems to be an entrepreneurial culture that has remained.

4.3 BARRIERS TO ENTREPRENEURIAL ACTIVITIES – A POLICY CHALLENGE

We would like to emphasise four policy areas we consider particularly important for early-stage entrepreneurship and the types of entrepreneurs that will emerge; supply of skills, access to finance, regulations and fear of failure. We conclude by presenting an early indicator of how future entrepreneurship is likely to develop.

Even though we have chosen four policy areas to be discussed below, we emphasise that building a policy framework to strengthen entrepreneurship and innovative endeavours requires other policy areas to be addressed in a coherent way, not least the incentive structure. Hence, the level and structure of taxes is one key policy area, as is policies to foster competition and facilitate market entry.

Swedish Entrepreneurship Forum has in previous reports emphasised that policies oriented towards strengthening the knowledge base do not suffice – there is also a need for policies that ensures that knowledge is converted into societal use. The latter involves a different arsenal of policy measures related to entrepreneurs and incumbents, where regulation is one important aspect, as is an appropriate incentive structure for individuals and firms. A policy to foster a dynamic microeconomic setting thus has to rest on two pillars; one augmenting and upgrading knowledge, the other ensuring that knowledge is diffused and converted into societal use. Both are thus required to support growing and high-quality entrepreneurship.

SKILLS

The supply of skills is a key condition for entrepreneurs to grow and maintain its innovative capacity.[17] Access to skills affects the levels of entrepreneurship and the type of entrepreneurs present in an economy. Figures 4.2a shows how opportunity-based entrepreneurship is positively correlated with a country's education expenses while Figure 4.2b shows that this also holds for R&D-expenses measured as the total number of researchers (private and public sector employees) in the respective country. A similarly positive relationship can be observed, even though it is not as strong as in Figure 4.2a.[18]

Hence, finding paths for partnership between universities/research institutes to improve the quality of entrepreneurship and the innovation level should be a prioritised task. Different programs already implemented among European countries may provide insights to how this could be achieved. One example is the EXIST-program in Germany where federal funding, combined with other sources, support academic entrepreneurship, building networks, and strengthening an entrepreneurial culture at German universities. Another is the Small Business Charter in the UK which aims at bringing together world-class business schools and organisations and environments focussing on start-ups and SMEs. The overall objective is to make small business grow and thereby positively impact sustainable economic growth. A third

17. *World Bank (2015).*
18. *Although the results presented show a positive causality it must not be interpreted as a causal relationship exists.*

Figure 4.2a: The countries' education expenditures and opportunity-based entrepreneurship, 2001-2014

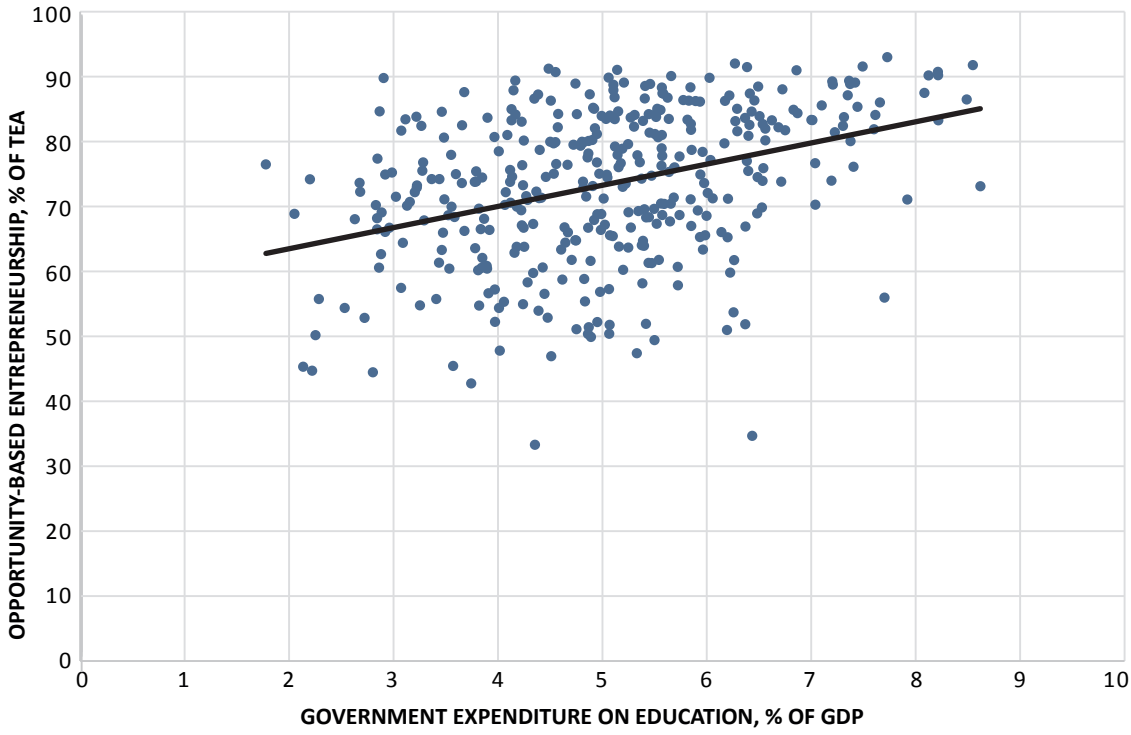
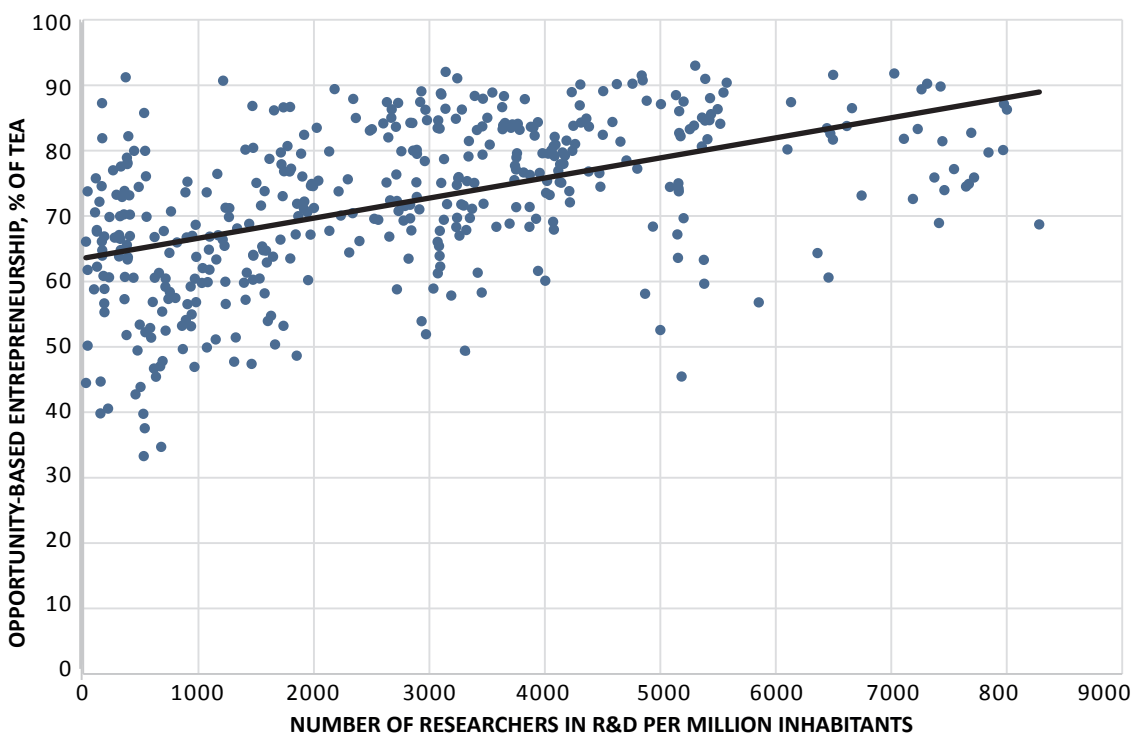


Figure 4.2b: Number of researchers in private and public R&D and opportunity based entrepreneurship, 2001–2013



example could be integration of new and young firms at AstraZeneca's company site in Sweden. These firms are not sponsored or owned by AstraZeneca, quite the contrary, but the expectation is that spill-overs will benefit both AstraZeneca and the young and small firms. The project is partly funded by a governmental agency.

Overall it is essential that universities are rewarded for their interaction with society, i.e. in terms of interacting with businesses and diffusing knowledge. Such impact factors are rarely acknowledged in terms of increased funding, rather it is the output of students and scientific research that receives all or the major brunt of the financial resources.

ACCESS TO CAPITAL

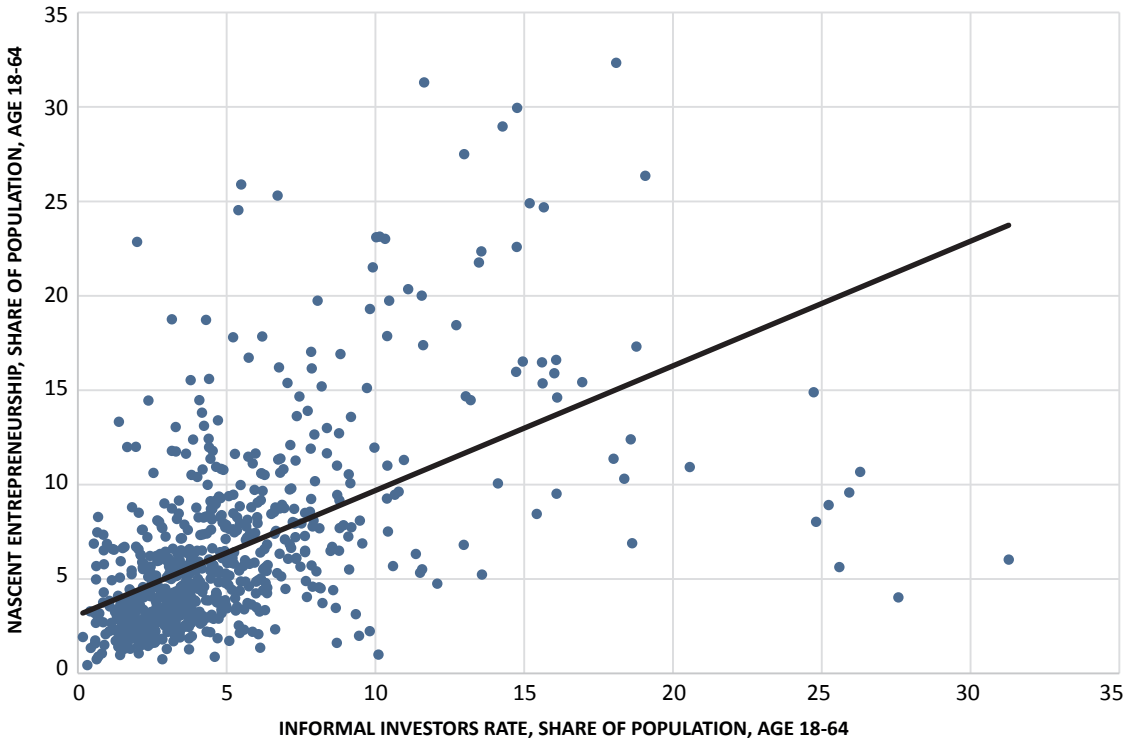
A second important component in promoting entrepreneurship driven economies is access to capital. Figure 4.3a recognises the links between access to informal investors – business angels – and the proportion of entrepreneurs while 4.3b is limited to the very early entrepreneurship (0-3 months). In both cases business angels and entrepreneurship are clearly positively associated.

Business angels who have experience of actually starting and running businesses is considered to be particularly skilled at piloting the development of new businesses. The Anglo-Saxon model, described above and found to be by far the best at creating entrepreneurial activities, is partly based on a social and economic acceptability of successful entrepreneurs who also builds fortunes. If these fortunes are reinvested in new companies, virtuous circles may be set into motion in which the previously successful entrepreneur's capital and expertise is invested in new entrepreneurs, whereof at least some will succeed and may re-invest their profits in new enterprises, etc. Countries that lack an entrepreneurial tradition also lack the skills critical for starting and building businesses. Instead they have acquired skills when it comes to organizing and streamlining existing larger companies.

Above we have referred to some Swedish reforms which may have had an allocation effect on how savings were channelled. Thus, it is important that reforms are designed in a coherent way to avoid

Figure 4.3a: Informal equity (business angels) and entrepreneurship (TEA), 2001-2015

Figure 4.3b: Informal equity (business angels) and nascent entrepreneurship, 2001-2015



sub-optimizing and conflicting objectives. Examples of reforms that seem to have increased access to capital and also deepened the financial markets can be found in Israel (a governmentally subsidised fund-in-fund solution) and also in the UK with regard to different tax reforms (tax deductibility of investments, postponing taxes if profits are re-invested, facilitating IPOs, etc.). A more contemporary issue is how to facilitate crowd-funding to become a viable tool for funding of young and new firms.

REGULATIONS

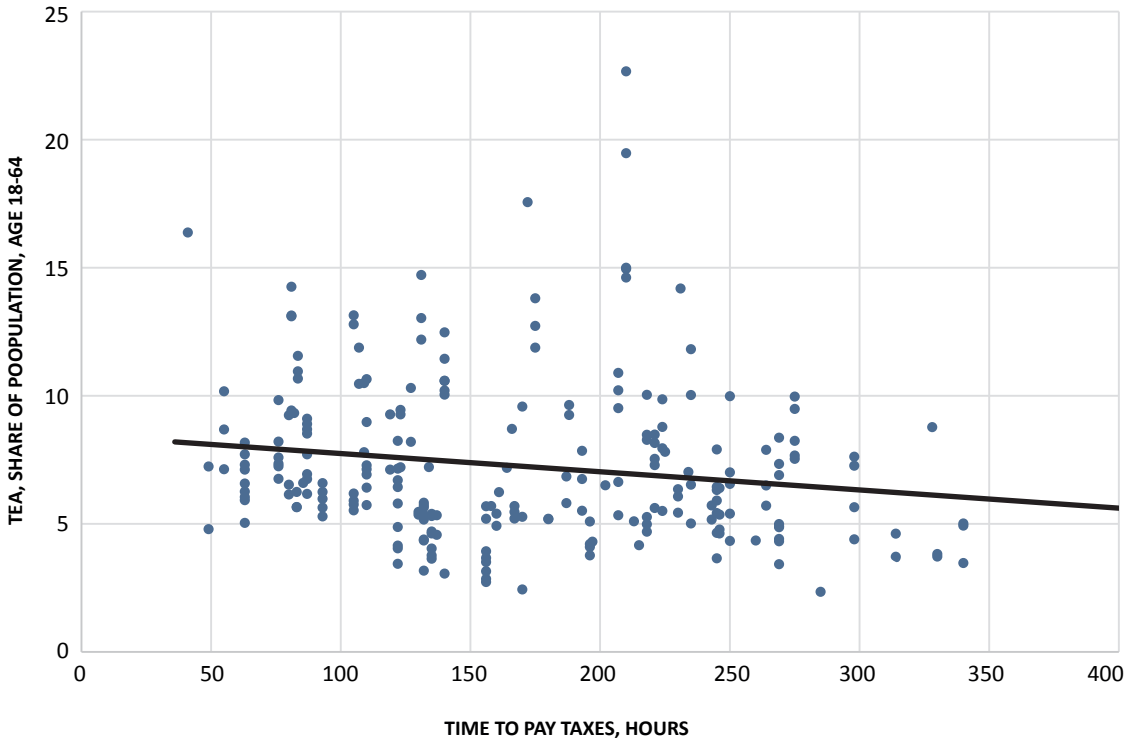
Several studies have highlighted the negative effects of regulations on entrepreneurship.When using GEM data on new and young entrepreneurs (TEA) researchers conclude that there is a significant and negative relationship between regulatory burdens and start-ups – with effects that can be expected to vary between firms, industries and policy areas.[19] Figure 4.4 illustrates this negative relationship by plotting tax complexity, defined as the average time required by a company to process its taxes, against newly registered companies.

Obviously, causality is not clear from a simple two-variable analysis, but a clear negative correlation strongly indicates that an increased regulatory burden more generally leads to a reduced level of entrepreneurship.[20] A strategically important issue for economic policies in creating an environment conducive to entrepreneurial endeavours is thus to minimise regulations that are particularly harmful or administratively burdensome and costly for entrepreneurs. Moreover, it should be noted that a heavy regulatory burden may not only have direct effects in terms of added costs of compliance but also indirectly harm entrepreneurship by affecting incentives, motivations and norms.[21] Entrepreneurship is channeled to less productive activities, even unproductive, as well as regulatory capture behavior and similar.

A reduction in red tape is thus a necessary prerequisite for building an entrepreneurial culture. Handling regulations is always more costly for new and small firms since there is a fixed cost attached to such procedures. Taxes is just one example. Facilitating

19. van Stel et al. (2007).
20. Braunerhjelm and Eklund (2014) confirm a statistically negative relationship that runs from tax complexity to new firm foundation.
21. See Braunerhjelm (2011) for a survey.

Figure 4.4: Regulatory burden and entrepreneurship, 2003-2015



participation for SMEs in public procurement would be another, preferably paired with innovation policies. There are obvious ways to achieve these ends, i.e. through digitalised system such as online procurement system, one stop shops, etc.

EXIT

A dynamic and productive business environment characterised by creative destruction is based not only on entry but also exits. As firms close down, resources are released and experiences useful for future endeavors are generated. However, both researchers and policy-makers have primarily been preoccupied with entry. Still, orderly exit is just as important as entry when creating an entrepreneurial culture. Giving the entrepreneur a second chance is likely to be rewarding in the future. Nevertheless, a number of countries have implemented strict rules when individuals fail to start and build a firm. Debts incurred by the firm may become personal and extremely hard to terminate, thereby hindering an individual from starting a new firm or take up a loan. Such stigmatising institutions may hamper entrepreneurial risk-taking and stifle growth and industrial dynamics. Furthermore, it tends. tends to feed a ”fear of failure” culture instead of an entrepreneurial culture.

In Figure 4.5 a distinct negative relationship between fear of failure and total entrepreneurial activity is shown. Hence, it is an important task for policy-makers to reach a reasonable balance between the legitimate demands by a firm’s creditors and the obligations imposed on the individual entrepreneur.

ENTREPRENEURIAL INTENT – AN EARLY INDICATOR

In Figure 4.1 it was shown that the Anglo-Saxon countries in particular hosts a large share of the population that claim to have plans to start a firm withing the three coming years. There is however no guarantee that subjectively reported intentions transcends into actual entrepreneurial activity. We therefore plotted the lagged intention variable against the actual level of TEA three years later. As shown in Figure 4.6 a very clear positive relationship emerges, implying that the development of entrepreneurial

Figure 4.5: Fear of failure and TEA, 2001-2015

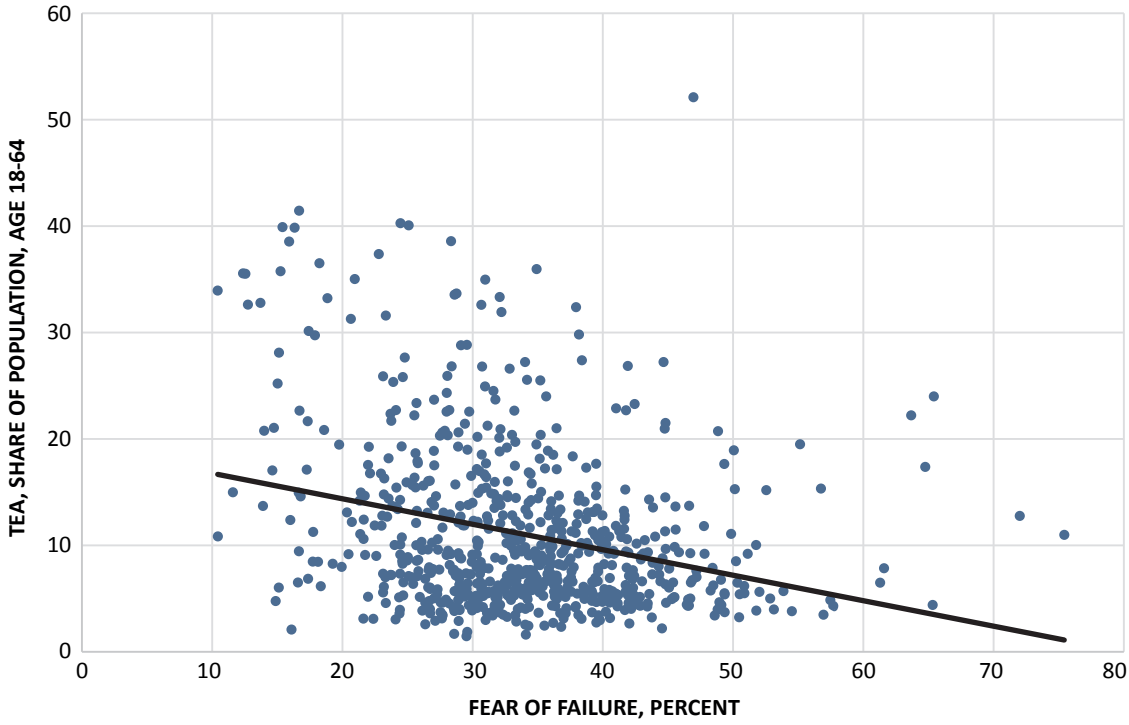


Figure 4.6: Entrepreneurial intent (three years lag) and TEA, 2001-2015

intent may be a good indicator of future entrepreneurial activity.

To conclude, the entrepreneurial level, its growth and specialisation is shaped by the design of a country's institutions, rules and traditions. There is consensus that a vital entrepreneurship is decisive for innovation, productivity and long-term growth. And that they are instrumental in coming up with disruptive and breakthrough innovations. The need for new ways to solve a number of global challenges has probably never been more urgent. Without booming entrepreneurship, challenging old solutions and old structures, the likelihood of solving future complex problems, stretching from health, food supply, biodiversity and climate issues, looks meagre. Global challenges requires global entrepreneurship – it is also an entrepreneurial challenge.

REFERENCES

Amorós, J.E. and Bosman, N. (2013), "Global Entrepreneurship Monitor 2013 Global Report – Fifteen Years of Accessing Entrepreneurship Across the Globe". Babson College, Babson Park, MA, United States, Universidad del Desarrollo, Santiago, Chile, University Tun Abdul Razak, Kuala Lumpur, Malaysia, London Business School, London, United Kingdom.

Barro, R. J. and Lee, J-W. (2013), "A New Data Set of Educational Attainment in the World, 1950-2010". *Journal of Development Economics*, 104, pp. 184–198.

Birch, D. (1979), "The Job Generation Process". MIT Program on Neighbourhood and Regional Change, MIT, Cambridge, MA.

Braunerhjelm, P. (2011), "Entrepreneurship, Innovation and Economic Growth. Interdependencies, irregularities and regularities". In Audretsch, D., Falck, O. and Heilbach, P. (eds.), Handbook of Innovation and Entrepreneurship, Edward Elgar.

Braunerhjelm, P. and Eklund, J. (2014), "Taxes, Tax Administrative Burdens and New Firm Formation". *Kyklos*, 67, pp. 1-11.

Davidsson, P., Steffens, P. and Stuetzer, M. (2012), "Global Entrepreneurship Monitor - National Entrepreneurial Assessment for Australia". The Australian Centre for Entrepreneurship Research, Brisbane University, Australia.

Haltiwanger, J., Jarmin, R., Miranda, J. (2010), "Who Creates Jobs? Small vs. Large vs. Young". NBER Working Paper Series, Working Paper 16300, Cambridge, MA.

Henrekson, M. and Johansson, D. (2010), "Gazelles as job creators: a survey and interpretation of the evidence". *Small Business Economics,* 35, pp. 227–244.

Lamballais Tessensohn, T. and Thurik, R. (2012), The relationship between different kinds of nascent entrepreneurship and the business cycle, in Braunerhjelm, P. (ed.), Entrepreneurship, norms and the business cycle, Swedish Economic Forum Report, Swedish Entrepreneurship Forum, Stockholm.

Lindbeck, A. and Snower, D. (2002), "The insider-outsider theory : a Survey". IZA Discussion paper series, No. 534.

van Stel, A., Storey, D. and Thurik, R. (2007), "The Effect of Business Regulations on Nascent and Young Business Entrepreneurship". *Small Business Economics*, 28, pp. 171-186.

World Bank (2015), "Sweden's Business Climate. A microeconomic assessment". World Bank, Washington D.C.

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