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Research and Analysis

FORA

International Consortium for Dynamic  
Benchmarking of Entrepreneurship

Quality Assessment  
of Entrepreneurship  
Indicators

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## FORAs mission

### **FORA ensures a fact-based platform for effective business policy development**

FORA enables decision makers to make fact-based decisions that take into account the current and future challenges faced by private enterprises by linking the current state of knowledge to policy making.

FORA's analyses are cutting edge and based on sound research, empirical evidence, public-private dialogue and partnerships with leading knowledge institutions and international organisations. Through dialogue with these key actors, FORA's state-of-the art analyses are situated at the crossroads between the advancing state of knowledge and the shifting challenges faced by private enterprises.

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FORA  
Dahlerups Pakhus  
Langelinie Allé 17  
DK-2100 København Ø  
Denmark

> T (+45) 35 46 63 20  
> F (+45) 35 46 62 01  
> M [fora@ebst.dk](mailto:fora@ebst.dk)  
> W [www.foranet.dk](http://www.foranet.dk)



Anders Hoffmann  
Morten Larsen  
Anne Sophie Oxholm

Quality  
Assessment of  
Entrepreneurship  
Indicators

Version 2

# Introduction

Effective decisions and solid policy making require clear, comprehensive and reliable data and information. For this reason, more and more countries have constructed large national indicator systems to measure their current stage and progress in various areas. The overall validity of these efforts depends amongst others on the quality of each of the individual indicators.

This paper deals with indicators related to entrepreneurship. The paper has four main parts. First, the paper briefly introduces a dichotomy for entrepreneurship indicators, which provide a starting point for collecting and analysing entrepreneurship indicators for policy purposes. Second, the paper introduces a quality framework. Third, the paper applies this quality framework to grade entrepreneurship indicators. Forth, the paper illustrates how the evaluation can be used to evaluate the quality of policy analysis by examining the quality of the Danish Entrepreneurship Index.

All of the discussed indicators are collected in a database, which is available to members of the International Consortium on Dynamic Benchmarking who has financed the work. The Consortium includes Canada, Denmark, Finland, the Netherlands, Norway, Sweden and the United Kingdom.

The paper has three purposes. First, it aims at providing a comprehensive overview of all available policy relevant indicators relating to entrepreneurship. Second, it rates the quality of each of these indicators in order to enable policy makers to evaluate the quality of policy analysis based on a given set of indicators. Third, the overview combined with the dichotomy can serve as a starting point for future indicator development to ensure new indicators address issues that are need-to-know for policy purposes.

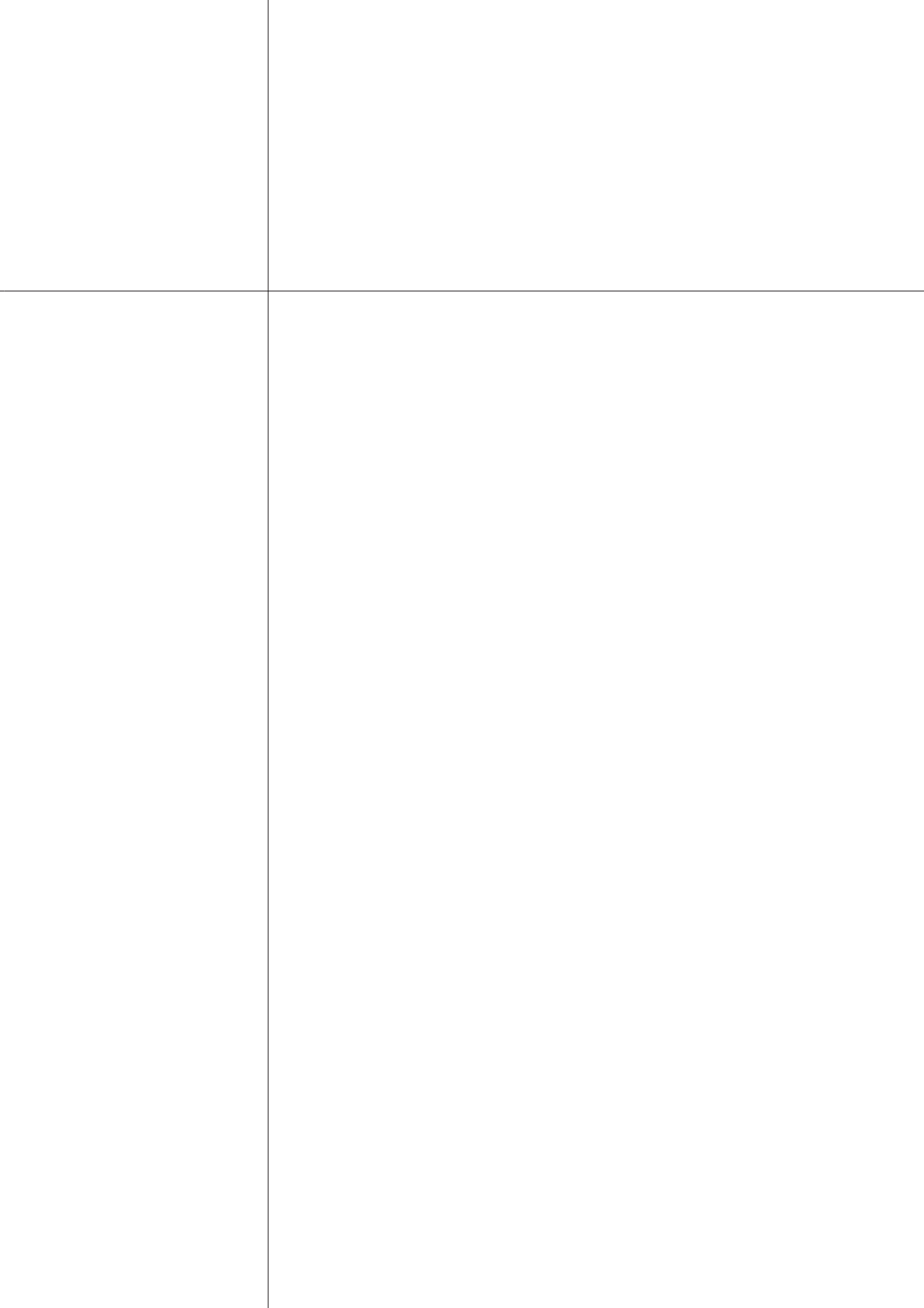
The current paper is a second version of the documentation of entrepreneurship indicators. This version has benefited from comments from the Consortium members and has received valuable input from Lars-Bjørn Larsen, Peter Nelleman, Nikolaj Vibe Michelsen and Anders Munk Ebbesen. A few new indicators are added, some have been removed and a few mistakes have been corrected. All comments are welcome: Anders Hoffmann (ah@ebst.dk).

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## A Dichotomy for Entrepreneurship Indicators

Available indicators relating to entrepreneurship measure everything from personal attributes of the entrepreneurs like gender to outcome of the entrepreneurial process like start-up rates. Effective policy thinking requires focus, so this section develops a dichotomy, which can be deployed to divide entrepreneurship indicators into four policy relevant categories. The dichotomy can be used to structure scoreboards and other publications presenting indicators. The four categories are:

*Performance indicators* – includes all indicators related to the outcome of the entrepreneurial process like number of startups, growth among new firms, job creation. These performance indicators should ideally be linked to either productivity growth or job creation, as these are key policy objectives for entrepreneurship. These indicators are essential for the analysis and understanding of the macro economic effects of entrepreneurship. This type of indicators should be given the highest priority in any effort to develop and improve entrepreneurship indicators.

*Business environment indicators* – includes all indicators relating to changeable factors affecting the success of the entrepreneurs like access to capital, regulation and administrative burdens. The business environment indicators measure a myriad of underlying environmental and sociological factors, which affect the performance indicators. No single paradigm or definition of what constitute the business environment exists, but many important contributions to the literature have been made. This paper is based on the framework developed in Gabr and Hoffmann 2006. The theoretical model allows for a further separation of the business environment indicators into five main categories, opportunities, skills, capital, incentives and culture. These indicators are a mix of market outcomes, such as the venture capital market size and the quantification of policies, such as the time credi-

tors can lay claims on assets after a bankruptcy. These indicators are external to the firm and vary across countries or regions. Furthermore, all business environment indicators can be affected by policy action. These indicators are essential for the analysis and the understanding of what drives difference in entrepreneurship performance across countries or regions and thereby the understanding of policy on entrepreneurship. This type of indicators should also be given high priority in any effort to develop and improve entrepreneurship indicators.

*Attribute indicators* – includes personal and firm specific characteristic like gender and age of the entrepreneurs. These indicators measure factors that are firm and individual specific and therefore vary across firms within a given region or country. Most of these characteristics cannot be changed by policy but they can nevertheless be important for the performance of the firm. These indicators are essential for the analysis and understanding of differences in success among firms within a given business environment. From a policymaker's perspective these indicators are more nice-to-know than need-to-know.

*Context indicators* – includes indicators related to the overall macro-economic environment and institutional context like unemployment rate and GDP growth. These indicators cover the “larger picture” of the various economies. These indicators are already available.

Most indicators fall naturally into one of the four categories but a few exceptions are worth discussing. Several indicators exist on the structure of the firms and their actions like share of debt financing or share of new firms with export. These indicators are not really performance indicators as capital structure and export are not outcome of the entrepreneurial process but they are not business environment indicators either, as they are a result of for example how the capital market function. These indicators fall in the attribute indicator category.

Another large set of indicators relate to people's perception of and their attitudes towards entrepreneurship. These indicators can be argued to belong to both the business environment indicators (as they affect the willingness to start) and the attribute indicator (as they are characteristics of individuals). Most of these indicators will be placed in the business environment category as they directly affect performance, can

be affected by policy and are collected to measure perception and attitudes in a given country or region.

The following manual will focus on performance and business environment indicators, as these are most directly relevant for policy.



Quality is defined as “fitness for use” in terms of user needs (OECD, 2003). This definition is broader than has been customary used in the past when quality was equated with accuracy. It is now generally recognised that there are other important dimensions. Even if data is accurate, it cannot be said to be of good quality if it is produced too late to be useful, or cannot be easily accessed, or appear to conflict with other data. Thus, quality is viewed as a multi-faceted concept. The most important quality characteristics depend on user perspectives, needs and priorities, which vary across groups of users.

It is important to note that each indicator must be evaluated in its context; in this case it would be entrepreneurship. Consequently, an indicator used in this quality assessment may be applied and assessed differently in other studies focusing on other issues (for instance, innovation, human resources, etc.). Thus, the quality measure for an indicator is meant to guide the policy maker on issues related to entrepreneurship rather than the statistician.

The quality framework draws on experience from the OECD, Eurostat and the US Key Indicator Project (OECD, 2003; Wallman et al, 2004; Munoz, 2004). The quality framework focuses on three quality dimensions: *relevance, accuracy and availability*. Each indicator is evaluated by grading it for each dimension and by an overall assessment. If considered useful, further qualitative information may be taken into account in the evaluation of the indicator. This implies that room is provided to describe other characteristics which may lead to restricting or increasing the use of a given indicator, relating for example to the complexity of an indicator, to a lack of an unambiguous scientific basis or to the lack of coherence with other existing indicators, etc.

## 1. Relevance

The relevance of an indicator is a qualitative assessment of the value contributed by the indicator. That is, the evaluation depends on the proximity between what the indicator measures and the framework condition it is supposed to measure. It is desirable for the indicator to be as close as possible to the framework condition it is intended to measure (Table 1.1).

<b>The Indicator's Proximity to the Framework Condition it is Supposed to Measure</b>	<b>Direct Measure</b>	<b>Proxy Measure</b>
Mark	A	B

**Table 1.1**  
**Assessment of Relevance**

An example is the indicator labeled *Barriers to Competition*. Here the level of legal barriers to entry and number of antitrust exemptions is a direct measure of the level of barriers to competition in existing markets.

Relevance has one more dimension. If an indicator is applied as a measure for a specific policy, it is useful to know whether a policy initiative has a direct or indirect impact on the indicator (Table 1.2).

<b>Policy Initiatives' Impact on Indicator</b>	<b>Direct Impact</b>	<b>Indirect Impact</b>
Mark	A	B

**Table 1.2**  
**Assessment of Policy Indicator Typology**

For example, for *Barriers to Competition* changing formal regulation concerning entry barriers and antitrust exemptions will have direct impact on the size of the barriers to competition.

## 2. Accuracy

The accuracy of an indicator is the degree to which the indicator correctly estimates or describes the quantities or characteristics it is designed to measure. Accuracy has two dimensions: data collection method and degree of cross-country standardisation.

### a) Data Collection Method

The data collection method is sound if data correctly estimates or describes the quantities or characteristics that it is designed to measure. Thus, accuracy based on data collection method refers to the closeness between the values provided and the (unknown) true value.

Major sources of error in data collection include coverage, sampling, non-response, response, processing and problems in dissemination. Addressing these standard problems are common for national statistical offices and international governmental institutions. Data from these sources should not suffer, in general, from these problems, whereas data from other sources should be evaluated on a case-by-case basis.

The appraisal of accuracy is based on the method used in collecting the data. Almost all indicators are based on surveys, polls or censuses. This framework distinguishes among three types: fact-based, action-based and opinion-based surveys.

*Fact-based surveys* relate to easy quantifiable aspects, in which different people would give the same response to a question. The OECD Regulatory Database is an example of this type because respondents are asked about whether or not a country has a given regulation.

*Action-based surveys* concern issues where respondents are asked if they have performed a given action within a given time period or not. The European Community Innovation Survey is an example of this type of survey. In this survey, firms are asked whether they have introduced new or technologically improved products or processes on the market during the last year.

*Opinion-based surveys* deal with questions asking for a subjective evaluation of a given aspect of the economy. The World Economic Forum's Executive Survey is an example of this type of survey. It asks executives about their opinion of the functioning and the quality of various aspects of the economy.

The accuracy of data collection methods can be evaluated as very good, good, acceptable (Table 1.3).

Data Collection Method	National statistical offices/ fact-based surveys	Action-based survey	Opinion-based surveys
Mark	A	B	C

**Table 1.3**  
**Assessment of Accuracy**

These scores can be clarified as follows:

- *Very good*: the indicator originates from national statistical offices or international government institutions; or the indicator stems from a fact-based survey.
- *Good*: the indicator comes from an action-based survey.
- *Acceptable*: the indicator comes from an opinion-based survey.

### b) Cross-country Comparability

Whether an indicator is comparable across countries requires consideration as to the method of data collection in the concerned countries. For example, an indicator is comparable if the same question is asked in all the countries in the same way and by the same means. It is desirable to have the highest degree of comparability across countries (Table 1.4).

The Indicator is Crosscountry Comparable	Fully Comparable	Comparable to some extent
Mark	A	B

**Table 1.4**  
**Assessment of Cross-Country Comparability**

### 3. Availability

The concept of availability relates to the accessibility of a given indicator in various countries and for a given time frame. It is desirable to have data from as many countries as possible (Table 1.5). In addition, an indicator available beyond the initial benchmark year is better than one that is only available beyond for one year (Table 1.5).

**Table 1.5**  
Assessment of Availability  
Across Countries

<b>The Share of OECD Countries for Which the Indicator is Available</b>	<b>100-76%</b>	<b>75-50%</b>
Mark	A	B

**Table 1.6**  
Assessment of Availability  
over Time

<b>The Number of Years the Indicator is Available for</b>	<b>Beyond the initial benchmark year</b>	<b>The initial benchmark year</b>
	<b>Yes</b>	<b>No</b>
Mark	A	B

#### 4. Overall Quality Assessment

The overall quality assessment is divided into three categories: good, acceptable and questionable (Table 1.7).

**Table 1.7**  
Overall Evaluation

<b>Name of Indicator</b>	<b>Good</b>	<b>Acceptable</b>	<b>Questionable</b>
Indicator A	A	B	C

Clarification of the three indicator score categories:

- *Good (A)*: at least 5 A's and no C's
- *Acceptable (B)*: at least 3 A's and no C's
- *Questionable (C)*: less than 3 A's or one or more C's.

#### 1.1 Gatekeeper Requirements

For an indicator to be included in the Quality Manual it has to fulfill four minimum requirements:

- The Indicator must originate from a reliable source, i.e. from a well-known, verifiable and well-documented source.
- The method for collecting data must be standardised to some extent across countries in order to increase cross-country comparability based on the indicator.

- The indicator must be available for at least 50 percent of countries in the study.
- The indicator must be interpretable a priori as to whether a high value is to be preferred over a lower value or the other way around.

## Part 2

# Quality Assessment of Each Indicator - an Overview

This manual focuses on two categories of entrepreneurship indicators - performance and business environment indicators. 4 performance indicators and 60 business environment indicators are included in this year's manual. All of the performance indicators are new to the manual and so are 13 of business environment indicators. 7 of last year's indicators are not included in this year manual as they are no longer updated (Technological Co-operation, Procurement Regulation, Export Credits and Insurance, Extent of Guarantees for SMEs, Top Marginal Bequest Tax Rate, Claims on a Bankruptcy's Assets – Length of Time and The Costs of Firing) and 3 indicators have been joined in a new indicator (Enforcing Contracts). Import burdens and export burdens are other additions to this year's manual

The performance indicators is lacking in quality (Table 2.1). None of the indicators are evaluated to be of good quality mainly due to a lack of comparability across countries. Entry rates are evaluated to have the highest quality, as these are collected by national statistical agencies and are based on registrar data although differences in definitions exist among countries.

**Tabel 2.1**  
**Overall Quality Assessment of Available Entrepreneurship Indicators**

Indicator	Overall Grade	Relevance		Accuracy		Availability	
		Relevance	Policy Relevant	Data Collection	Comparability	Across Countries	Over time
Entry Rates**	<b>B</b>	A	B	A	B	B	A
Total Entrepreneurial Activity**	<b>C</b>	B	B	B	B	A	A
Share of High-Growth Firms (Turnover)**	<b>B</b>	A	B	A	B	B	A
Share of High-Growth Firms (Employee)**	<b>B</b>	A	B	A	B	B	A

Note: \*\* New indicator

The business environment indicators can be divided into five main categories - opportunities, capital, abilities, incentives and culture. The division of indicators into the five categories is based on Gabr and Hoffmann, 2006. All categories are measured by at least six indicators (Table 2.2). The areas of ability and culture are in most need of further development of indicators. All of the areas of abilities are measured by subjective judgments, which make comparison across countries and time difficult. Culture is also measured by subjective indicators but this is less problematic. The culture component of the model is a judgment of peoples' perception of for example entrepreneurs and risks, which is subjective by nature.

**Table 2.2**  
**Overall Quality Assessment of Available Entrepreneurship Indicators**

Indicator	Overall Grade	Relevance		Accuracy		Availability	
		Relevance	Policy Relevant	Data Collection	Comparability	Across Countries	Over time
<b>1. Technology Transfer Regulation</b>							
a. University/Industry Research Collaboration*	<b>C</b>	A	B	C	A	A	A
<b>2. Entry Barriers</b>							
a. Barriers to Competition	<b>A</b>	A	A	A	A	A	A
b. Public Ownership	<b>A</b>	A	A	A	A	A	A
c. Public Involvement in Business Operation	<b>A</b>	A	A	A	A	A	A
d. Minimum of Capital Required for Starting a Business*	<b>A</b>	A	A	A	B	A	A
<b>3. Access to Foreign Markets</b>							
a. Import Burdens**	<b>A</b>	A	A	A	A	A	A
b. Export Burdens**	<b>A</b>	A	A	A	A	A	A
<b>4. Capital Access</b>							
a. Capital Access Index**	<b>A</b>	A	B	A	B	A	A
<b>5. Loans</b>							
a. Private Credit*	<b>A</b>	A	B	A	A	A	A
b. Interest Rate Spread*	<b>B</b>	B	B	A	A	A	A
c. Cost to Create Collateral	<b>A</b>	B	A	A	A	A	A
d. Country Credit Rating*	<b>C</b>	B	B	C	A	A	A
e. Legal Rights Index**	<b>A</b>	B	A	A	A	A	B

<b>6. Venture Capital</b>							
a. Venture Capital - Early Stage*	<b>B</b>	A	B	A	A	A	A
b. Venture Capital - Expansion Stage*	<b>B</b>	A	B	A	A	A	A
<b>7. Exit Markets</b>							
a. Capitalization of Secondary Stock Market	<b>B</b>	A	B	A	A	A	B
b. Market Capitalisation of Newly listed Companies Relative to GDP**	<b>A</b>	A	B	A	A	A	A
c. Capitalisation of Primary Stock Market*	<b>A</b>	A	B	A	A	A	A
d. Turnover in Primary Stock Market*	<b>A</b>	A	B	A	A	A	A
e. Buyouts**	<b>B</b>	A	B	A	B	A	B
<b>10. Wealth and Bequest Taxes</b>							
a. Revenue from Bequest Tax*	<b>A</b>	A	A	A	A	A	A
b. Revenue from Net Wealth Tax*	<b>A</b>	A	A	A	A	A	A
<b>9. Capital Taxes</b>							
a. Taxation of Dividends – Top Marginal Tax Rate*	<b>B</b>	B	A	A	A	A	B
b. Taxation of Dividends – Top Marginal Tax Rate for Self-employed	<b>B</b>	B	A	A	A	A	B
c. Taxation of Stock Options	<b>B</b>	A	A	A	A	B	B
d. Taxation of Capital Gains on Shares – Short Term	<b>B</b>	A	A	A	B	A	B
e. Taxation of Capital Gains on Shares – Long Term	<b>B</b>	A	A	A	B	A	B
<b>10. Restart Possibilities</b>							
a. Possibility of a Fresh Start**	<b>A</b>	A	A	A	A	A	B
<b>11. Entrepreneurship Education</b>							
a. Entrepreneurship Education at Primary & Secondary Level	<b>C</b>	A	B	C	A	A	A

b. Entrepreneurship Education at Higher Levels	C	A	B	C	A	A	A
12. Traditional Business Education							
a. Quality of Management Schools*	C	A	B	C	A	A	A
13. Public Entrepreneurship Infrastructure							
a. Government Programs	C	A	B	C	A	A	A
14. Total Tax Revenue							
a. Total Tax Revenue as Percentage of GDP**	A	A	A	A	B	A	A
15. Personal Income Tax							
a. Highest Marginal Income Tax Plus Social Contributions*	A	A	A	A	A	A	A
b. Average Income Tax Plus Social Contributions*	A	A	A	A	A	A	A
16. Business Tax							
a. SME Tax Rates*	A	A	A	A	A	A	B
b. Taxation of Corporate Income Revenue*	A	A	A	A	A	A	A
17. Bankruptcy Legislation							
a. Actual Cost to Close a Business*	B	B	A	B	A	A	A
b. Actual Time to Close a Business*	B	B	A	B	A	A	A
c. Bankruptcy Recovery Rate**	A	A	A	A	A	A	A
18. Administrative Burdens - Start-up							
a. Number of Procedures for Starting a Business*	A	A	A	A	A	A	A
b. Number of Days for Starting a Business*	A	A	A	A	A	A	A

c. Costs Required to Start a Business*	A	A	A	A	A	A	A
<b>19. Administrative Burdens - Production</b>							
a. Regulatory and Adm. Opacity	A	A	A	A	A	A	B
b. Registering Property**	A	A	A	A	A	A	A
c. Procedures, Time and Costs to Build a Warehouse**	A	A	A	A	A	A	A
d. Enforcing Contracts**	A	A	A	A	A	A	A
e. Time it takes to Prepare, File and Pay Corp. Income Tax, the VAT and Social Contributions**	A	A	A	A	A	A	B
<b>20. Labour Market Regulation</b>							
a. Difficulty of Hiring*	A	A	A	A	B	A	A
b. Difficulty of Firing*	A	A	A	A	B	A	A
c. Rigidity of Hours Index*	A	A	A	A	B	A	A
d. Number of Administrative Procedures when Recruiting First Employee	A	A	A	A	A	A	B
e. Number of Administrative Procedures when Recruiting Additional Employee	A	A	A	A	A	A	B
<b>21. Entrepreneurial Culture</b>							
a. Cultural and Social Norms	C	A	B	C	A	A	B
b. Entrepreneurial Motivation	C	A	B	C	A	A	B
c. Self-employment Preference	C	A	B	C	A	B	A
d. "The wish to own one's own Business"	C	A	B	C	A	B	A
e. Desirability of becoming Self-employed	C	A	B	C	A	B	A
f. Risk for business failure	C	A	B	C	A	B	A

Note: : \*indicator updated, \*\*new indicator

## Quality Assessment of Each Performance Indicator

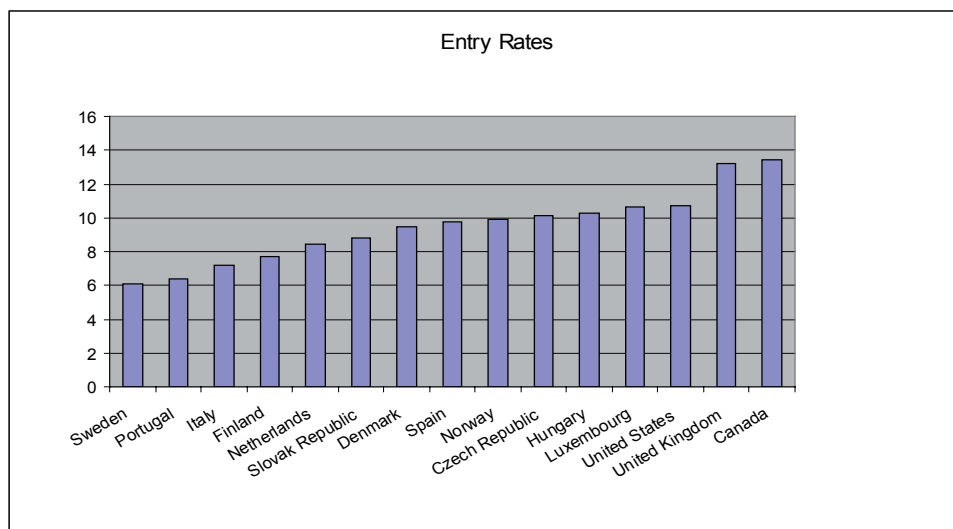
### 3.1 Entry Rates

#### Definition:

Entry rates are measured by the business demography indicator “Birth Rate of Enterprises”. The indicator measures the number of new enterprises as a share of the company base.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of the start-up rates of new firms.	A
	<i>b) Assessment of the Type of Policy Indicator</i> Policy focused indicator. Policy initiatives targeted towards improving the environment for new companies will have an <u>indirect</u> impact on the start-up rates.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originates from Eurostat and is based upon registrar data.	A
	<i>b) Cross-country Comparability</i> <u>Data is not fully comparable</u> since there are cross-country differences in the definition of entry rates.	B

<b>3. Availability</b>	<i>a) Availability across Countries</i> Data is available for 15 OECD countries.	B
	<i>b) Availability over Time</i> The indicator is available for the time period 2001 to 2003 and will be updated.	A
<b>Source</b>	Eurostat, INDUSTRY, TRADE AND SERVICES. Business demography: Birth rate of enterprises.  Available online: <a href="http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&amp;_dad=portal&amp;_schema=PORTAL&amp;screen=welcomeref&amp;open=/&amp;product=Yearlies_new_industry&amp;depth=3">http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&amp;_dad=portal&amp;_schema=PORTAL&amp;screen=welcomeref&amp;open=/&amp;product=Yearlies_new_industry&amp;depth=3</a>	



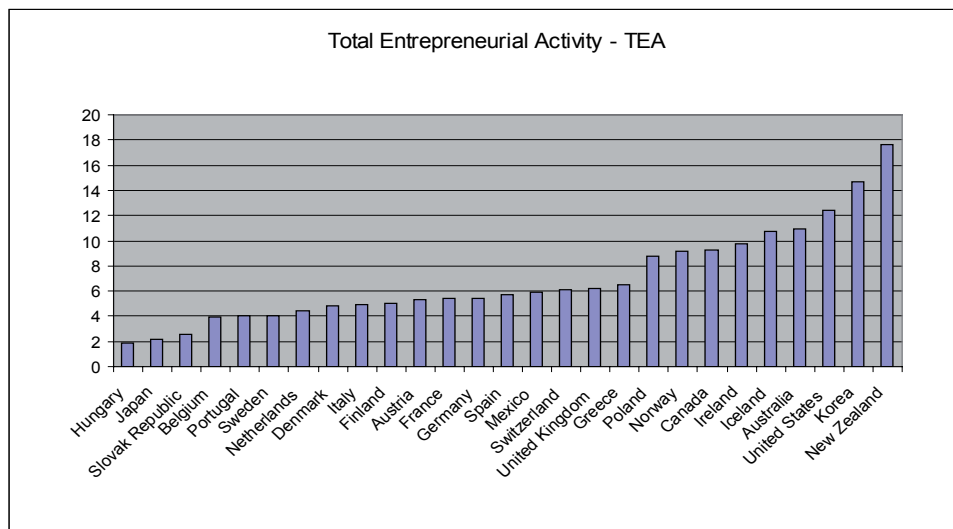
## 3.2 Total Entrepreneurial Activity

### Definition:

The TEA index is the combined count of nascent entrepreneurs and new business owners. The indicator measures the share of the population who are starting a new company or runs a new company (a new company is defined as being maximum 3 ½ years old).

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The TEA index is an <u>indirect</u> measure of the start-up rates of new businesses.	B
	<i>b) Assessment of the Type of Policy Indicator</i> Policy focused indicator. Policy initiatives targeted towards improving the environment for new companies will have an <u>indirect</u> impact on the total entrepreneurship activity.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is computed from an <u>action</u> -based survey. Interviews are made among a representative section of the 16-64 years old. Data originates from the Global Entrepreneurship Monitor.	B
	<i>b) Cross-country Comparability</i> <u>Data is not fully comparable</u> since there are cross-country differences in how a representative section of the population is selected.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> Data is available for 23 OECD countries.	A
	<i>b) Availability over Time</i> Data is available for the period 2000 to 2005. Updates are made annually.	A

<b>Source</b>	<p>Global Entrepreneurship Monitor (GEM)</p> <p>Available online:  <a href="http://www.gemconsortium.org/download/1108555479453/GEM%20Exec%20Tables.pdf">http://www.gemconsortium.org/download/1108555479453/GEM%20Exec%20Tables.pdf</a></p>
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### 3.3 Share of High-Growth Firms (Turnover)

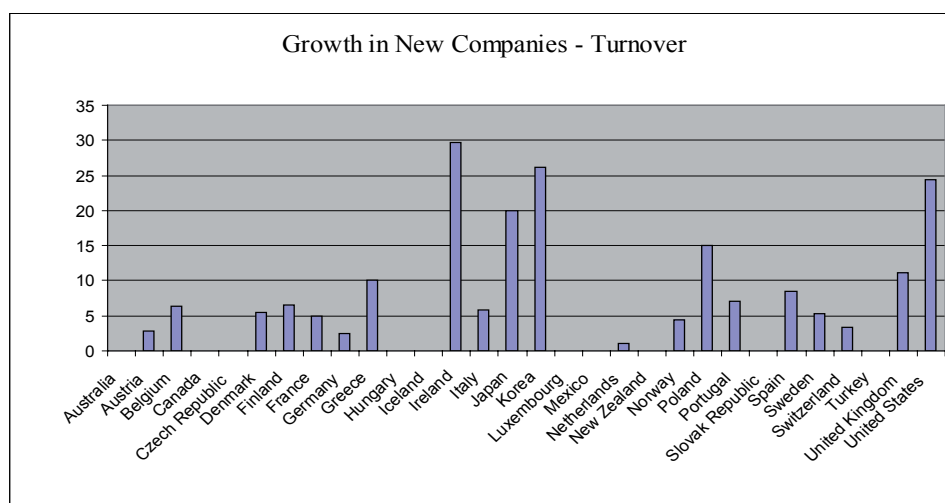
**Definition:**

The indicator defines high-growth firms (turnover) as the share of firms with a growth rate in turnover higher than 60 % over a three-year period and with a growth rate of at least 20 % each year.

The indicator is calculated using data for firms, who have gone into business in the period 1997 to 2001 and where there are at least 15 full-time positions.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The share of firms with a high-growth in the company turnover is a <u>direct</u> measure of the growth in new companies.	A
	<i>b) Assessment of the Type of Policy Indicator</i> Policy focused indicator. Policy initiatives targeted towards improving the environment for new companies will have an <u>in-direct</u> impact on the companies' growth in turnover.	B

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data is based upon registrar data and is collected by Bureau Van Dijk (BvD), an electronic publishing firm and documented in Hoffmann and Junge (2006). BvD specialises in cleaning and organising data supplied by national information providers (e.g., Companies House in the UK, INPI in France, National Bank in Belgium).	A
	<i>b) Cross-country Comparability</i> Data is provided from databases that have a different coverage rate of SMEs, which makes a <u>cross-country comparison not fully accurate</u> .	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> Data is available for 20 OECD countries.	B
	<i>b) Availability over Time</i> Data is available for the time period 2002 to 2004. Updates are possible.	A
<b>Source</b>	The indicator has been constructed by Hoffmann and Junge, 2006.	



### 3.4 Share of High-Growth Firms (Employees)

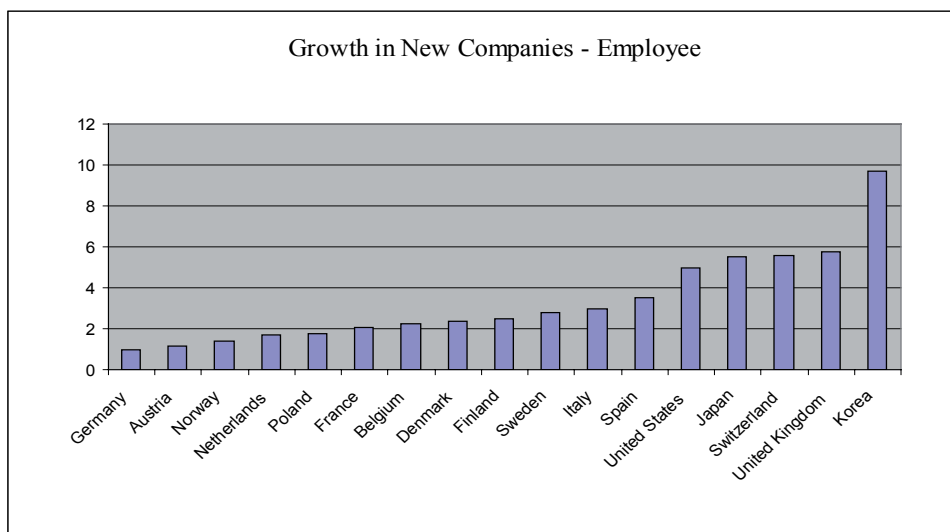
#### Definition:

The indicator defines high-growth firms (employee) as the share of firms with a growth rate in employees higher than 60 % over a three-year period and with a growth rate of at least 20 % each year.

The indicator is calculated using data for firms, who have gone into business in the period 1997 to 2001 and where there are at least 15 full-time positions.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The share of firms with high-growth in employees is a <u>direct</u> measure of the growth in new companies.	A
	<i>b) Assessment of the Type of Policy Indicator</i> Policy focused indicator. Policy initiatives targeted towards improving the environment for new companies will have an <u>in-direct</u> impact on the companies' growth in employees.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data is based upon registrar data and is collected by Bureau Van Dijk (BvD), an electronic publishing firm and documented in Hoffmann and Junge (2006). BvD specialises in cleaning and organising data supplied by national information providers (e.g., Companies House in the UK, INPI in France, National Bank in Belgium).	A
	<i>b) Cross-country Comparability</i> is provided from databases that have a different coverage rate of SMEs, which makes a <u>cross-country comparison not fully accurate</u> .	B

<b>3. Availability</b>	<i>a) Availability across Countries</i> Data is available for 17 OECD countries.	B
	<i>b) Availability over Time</i> Data is available for the time period 2002 to 2004. Updates are possible.	A
<b>Source</b>	The indicator has been constructed by Hoffmann and Junge, 2006.	



## Quality Assessment of Each Framework Condition Indicator

### 4.1 University/Industry Research Collaboration

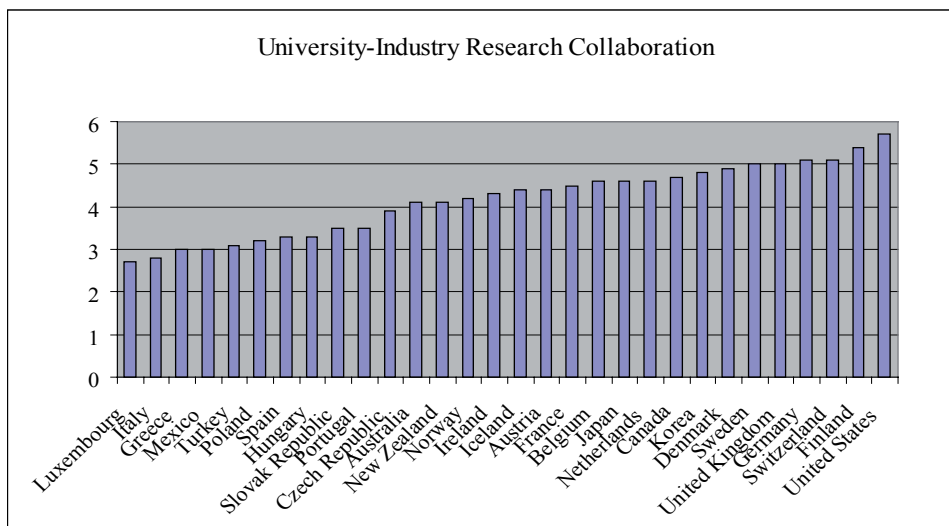
**Definition:**

The indicator measures business executives’ perceptions of the level of collaboration between their firm and local universities when conducting research and development (R&D).

The indicator is based on the Executive Opinion Survey, which is part of the Global Competitiveness Report. Business executives are asked whether their business collaborates with local universities. The ranking goes from 1 (non-existing) to 7 (intensive and ongoing).

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The level of R&D collaboration between firms and local universities is a <u>direct</u> measure of an effective knowledge transfer regulation.	A
	<i>b) Assessment of the Type of Policy Indicator</i> Effective collaboration between R&D oriented companies and local universities is an important <u>outcome</u> of an efficient knowledge transfer regulation and, thus, not a direct measure of the regulation per se.  Furthermore, the indicator is opinion-based. Policy measures can only have an <u>in-direct</u> impact on the opinions of business executives.	B

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based as the information is provided by leading business executives and entrepreneurs responding to the Executive Opinion Survey, which is part of the Global Competitiveness Report 2003-2004.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same methodology is used in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for 102 industrialised and emerging countries.	A
	<i>b) Availability over Time</i> The indicator is based on a survey disseminated in 2005. It will be updated annually.	A
<b>Source</b>	The indicator is published in the <i>Global Competitiveness Report 2005 – 2006</i> , World Economic Forum, no 3.08.	



## 4.2 Barriers to Competition

The Indicator consists of two low level indicators called Legal Barriers to Entry (weight 0,3) and Antitrust Exemptions (weight 0,7).

### Definition:

*Legal barriers indicator:* Measures whether national, state or provincial laws or other regulations restrict the number of competitors allowed to operate a business in some markets in 24 manufacturing and service sectors – two response categories (yes = 6 or no = 0) for each sector.

*Antitrust exemptions:* Measures the scope of exemptions to competition law for public enterprises or government mandated behaviour - two response categories (yes = 6 or no = 0) for each question (Exhibit 1).

### Exhibit 1: Questions Covering Antitrust Exemptions

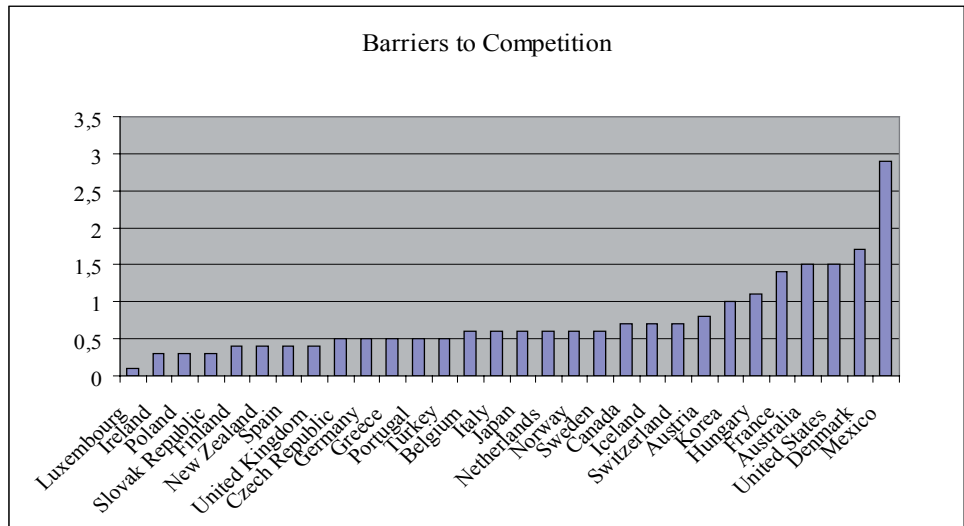
#### Indicator

Measured by countries' answers to the following four questions (Weighted by % of business sectors in which the state controls at least a firm):

- Is there a rule or principle providing for exclusion or exemption from a liability under the general competition law for conduct that is required or authorized by government authority (in addition to exclusions that might apply to complete sectors)?
- Publicly-controlled firms: Exclusion or exemption from competition law: Cartel & other horizontal?
- Publicly-controlled firms: Exclusion or exemption from competition law: Vertical & abuse of dominance monopolisation.
- Publicly-controlled firms: Exclusion or exemption from competition law: Merger?

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The level of legal barriers to entry and number of antitrust exemptions is a <u>direct</u> measure of <i>the level of barriers to competition in existing markets</i> .	A
	<i>b) Assessment of Policy Indicator Typology</i> Changing formal regulation concerning entry barriers and antitrust exemptions will have <u>direct</u> impact on the size of the indicator for barriers for competition.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact-based</u> indicator that measures whether or not a country has formal exemptions or formal legal barriers written into laws or regulation.  Both indicators are measuring formal regulation, not the quality of regulation or the enforcement of the regulation.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> – fact-based questions collected and computed using the same methodology in all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries (30 countries).	A
	<i>b) Availability over Time</i> The indicator is fact-based and available for years 1998 and 2003.  The data will not be updated annually. Some of the data may be updated at a later stage.	A

<b>Source</b>	The data is published in OECD reports. ECO/WKP(1999)18. Available online: <a href="http://www.oilis.oecd.org/oilis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF">http://www.oilis.oecd.org/oilis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF</a> New data: ECO/WKP(2005)6.
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator.*

### 4.3 Public Ownership

The indicator consists of three low level indicators **Scope of Public Enterprise Sector** (weight 0,3), **Size of Public Enterprise Sector** (weight 0,3) and **Direct Control over Business Enterprises** (weight 0,4).

#### *Definitions:*

*Scope of Public Enterprise Sector:* Based on responses of OECD Member countries to an ad hoc questionnaire (The OECD Regulatory Indicators Questionnaire). Measures whether national, state or provincial government controls at least one firm in 24 different sectors - two response categories (yes = 6 or no = 0) for each sector.

*Size of Public Enterprise Sector* measures the overall size of the state-owned enterprises relative to the size of the economy. The indicator

is an OECD estimate based on CEEB 1997 (source not available) and Gary & Larson 1997 (source not available). Index is scaled from 0 to 6 from smallest to largest size.

*Direct Control over Business Enterprises* measures the existence of government special voting rights in privately-owned firms, constraints on the sale of state-owned equity stakes, and the extent to which legislative bodies control the strategic choices of public enterprises. - two response categories (yes = 6 or no = 0) for each question (exhibit 1).

### **Exhibit 1: Questions covering the direct control over business enterprises indicator**

#### General Constraints

- Legal or constitutional constraints to the sale of the stakes held by government in these firms (weighed 0,3).
- Strategic choices of any publicly-controlled firms have to be reviewed and/or cleared in advance by national, state, or provincial legislatures (weighed 0,2).

#### Golden Shares

- National, state or provincial governments have special voting rights (e.g. golden shares) in any firms within the business sector (weighed 0,25).

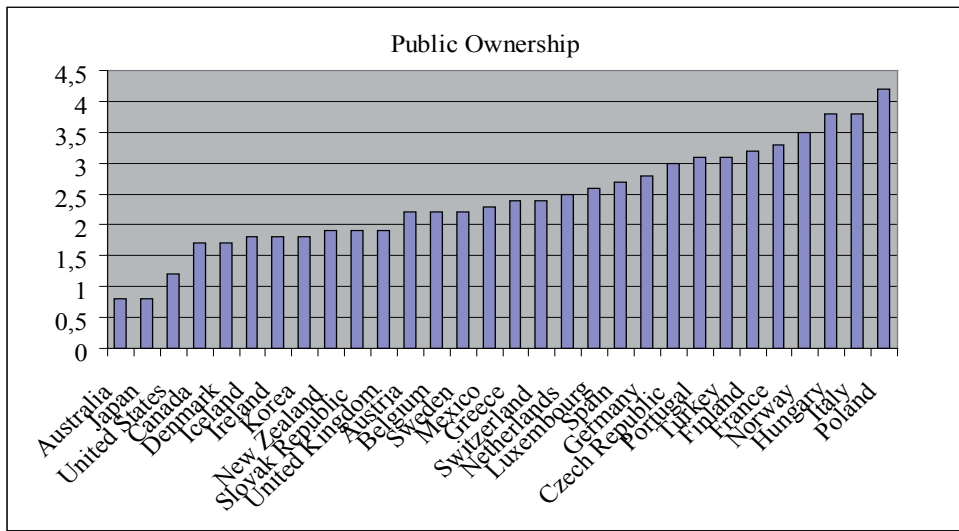
#### Extent of the Special Voting Rights

- Special rights can be exercised in: (weighed 0,25)
  - o Merger with or acquisition by another company (sub-question weight 0,25).
  - o Change in controlling coalition (sub-question weight 0,25).
  - o Choice of management (sub-question weight 0,25).
  - o Strategic management decisions (sub-question weight 0,25).

The second indicator (Size of Public Enterprise Sector) measures the overall effect of direct and indirect initiatives on the size of the public sector, while the first and third indicator measure formal regulations of public influence in business sector.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The scope and size of the public enterprise sector and the level of direct public control over business enterprises is a <u>direct</u> measure of the level of barriers to competition in existing markets.	A
	<i>b) Assessment of Policy Indicator Typology</i> Low level indicators measure regulation in a <u>direct</u> way. Changing formal regulation concerning scope and size of public enterprise and direct control over business enterprises will have <u>direct</u> impact on the size of the indicator for public ownership.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact-based</u> indicator. Measuring the scope and size of state control in the economy and whether or not a country has special voting rights in privately-owned firms, constraints on the sale of state-owned equity stakes etc. written into laws or regulation.  <i>NB: The sources for the second low level indicator (Size of public enterprise sector) have not been checked.</i>	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> , fact-based questions collected and computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries (30 countries).	A
	<i>b) Availability over Time</i> The indicator is fact-based and available for years 1998 and 2003. The data will not be updated annually. Some of the data may be updated at a later stage.	A

<b>Source</b>	<p>The data is published in OECD reports. ECO/WKP(1999)18: <a href="http://www.oilis.oecd.org/olis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF">http://www.oilis.oecd.org/olis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF</a>.</p> <p>New data: ECO/WKP(2005)6.</p>
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

#### 4.4 Public Involvement in Business Operation

The indicator consists of the two low level indicators **Use of Command and Control Regulation** (weight 0, 55) and **Price Controls** (weight 0, 45).

##### Definition:

*Use of command and control regulation:* indicates the extent to which government uses coercive (or incentive-based) regulation in general and in specific service sectors – two response categories (yes = 0 or no = 6) for each question (Exhibit 1).

*Price controls:* reflects the extent of price controls in specific sectors. The indicator includes sector specific information – two response categories (yes/no) for each question (Exhibit 2).

#### Exhibit 1: Questions Covering the Use of Command and Control Regulation Indicator

Questions	Coding of answers	
	Yes	No
<b>General information</b>		
• Regulations are required to assess alternative policy instruments (regulatory and non-regulatory) before adopting new regulation.	0	6
• Guidance has been issued on using alternatives to traditional regulation.	0	6
<b>Sector-specific information</b>		
<i>Road Freight</i>		
• Regulations prevent or constrain backhauling (picking up freight on the return leg).	6	0
• Regulations prevent or constrain private carriage (transport only for own account).	6	0

<ul style="list-style-type: none"> <li>Regulations prevent or constrain contract carriage (contractual relation between an otherwise independent hauler and one shipper).</li> </ul>	6	0
<ul style="list-style-type: none"> <li>Regulations prevent or constrain inter modal operations (operating or ownership links between firms in different transportation sectors).</li> </ul>	6	0
<i>Retail Distribution</i>		
<ul style="list-style-type: none"> <li>Shop opening hours are regulated.</li> </ul>	6	0
<ul style="list-style-type: none"> <li>Government regulations on shop opening hours apply at national level.</li> </ul>	6	0
<ul style="list-style-type: none"> <li>The regulation of opening hours have become more flexible in the last 5 years.</li> </ul>	0,5 <sup>1</sup>	0
<i>Air Travel</i>		
<ul style="list-style-type: none"> <li>Carriers operating on domestic routes are subject to universal service requirements (e.g. obligation to serve specified customers or areas).</li> </ul>	6	0
<i>Railways</i>		
<ul style="list-style-type: none"> <li>Companies operating the infrastructure or providing railway services are subject to universal service requirements (e.g. obligation to serve specified customers or areas).</li> </ul>	6	0

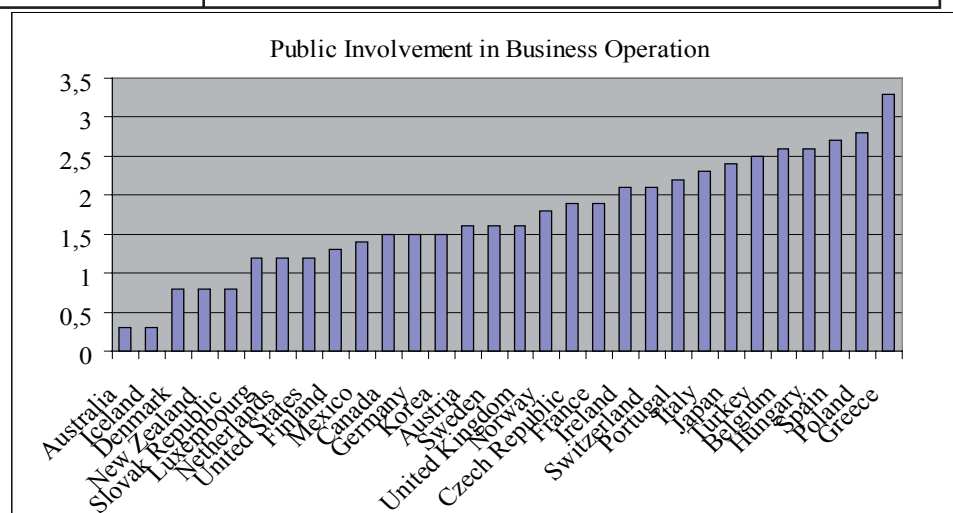
1 If answer is yes, 0,5 is subtracted from the industry-specific score.

<b>Exhibit 2:</b>		
<b>Questions Covering the Price Controls Indicator</b>		
Questions	Coding of answers	
	Yes	No
<b>Air Travel</b>		
<ul style="list-style-type: none"> <li>Prices of domestic air fares are regulated.</li> </ul>	6	0
<ul style="list-style-type: none"> <li>5 or 4 busiest international routes subject to price regulation</li> </ul>	(n/5)*6 or	(n/4)*6

<b>Road Freight</b>		
• Retail prices of road freight services are regulated in any way by the government.	6	0
• Government provides pricing guidelines to road freight companies.	6	0
• Professional bodies or representatives of trade and commercial interests are involved in specifying or enforcing pricing guidelines or regulations.	6	0
<b>Retail Distribution</b>		
• Retail prices of the following products are subject to price controls:		
• - Retail prices of certain staples (e.g. milk and bread).	6	0
• - Retail prices of gasoline.	6	0
• - Retail prices of tobacco.	6	0
• - Retail prices of alcohol.	6	0
• - Retail prices of pharmaceuticals.	6	0
• - Retail prices of other product.	6	0
<b>Telecommunication</b>		
• Retail prices of digital mobile service in telecommunications are regulated.	6	0

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The use of price controls and command and control regulation is a <u>direct</u> measure of <i>the level of barriers to competition in existing markets.</i>	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulation concerning price controls and use of command and control regulation will have <u>direct</u> influence of the size of the indicator for barriers for public involvement in business operation.	A

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> Fact-based indicator. Measuring whether or not a country has price controls and use of command and control regulation written into laws or regulation.	A
	<i>b) Cross-country Comparability</i> Fully comparable fact-based questions collected and computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is fact-based and available for year 1998 and 2003. The data will not be updated annually. Some of the data may be updated at a later stage.	A
<b>Source</b>	The data are published in OECD reports. ECO/WKP(1999)18. Available online: <a href="http://www.oilis.oecd.org/oilis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF">http://www.oilis.oecd.org/oilis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF</a> .  New data: ECO/WKP(2005)6.	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.5 Minimum of Capital Required for Starting a Business

### Definition:

The indicator measures the paid-in minimum of capital requirement that the entrepreneur needs to deposit in a bank before registration of the business starts (Exhibit 1). The amount of capital is recorded as a percentage of the country's income per capita.

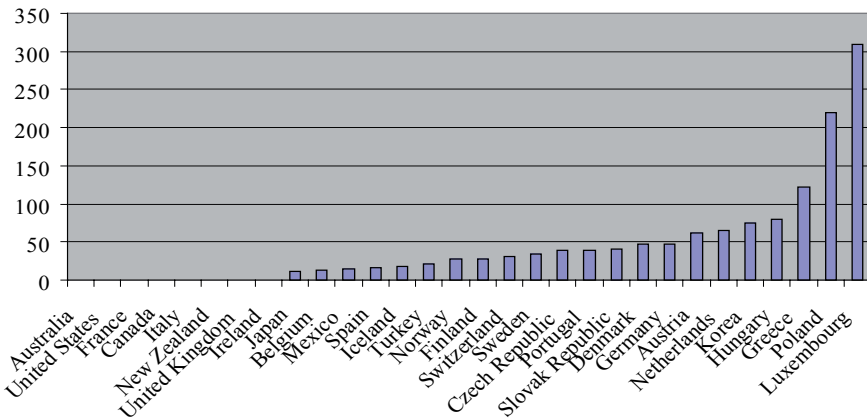
### Exhibit 1

This indicator assumes that the business:

- Is a limited liability company.
- Operates in the country's most populous city.
- Is 100% domestically owned and has 5 owners, none of whom is a legal entity.
- Has start-up capital of 10 times income per capita at the end of 2005, paid in cash.
- Performs general industrial or commercial activities, such as the production or sale of products or services to the public. It does not perform foreign trade activities and does not handle products subject to a special tax regime, for example, liquor or tobacco. The business is not using heavily polluting production processes.
- Leases the commercial plant and offices and is not a proprietor of real estate.
- Does not qualify for investment incentives or any special benefits.
- Has up to 50 employees 1 month after the commencement of operations, all of them nationals.  
Has a turnover of at least 100 times income per capita.
- Has a company deed 10 pages long.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of a potential entry barrier an entrepreneur must overcome to incorporate and register a new firm.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the capital requirement will have a <u>direct</u> impact on entry barriers.</p>	A
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i> The data is <u>fact-based</u>. Data originating from the World Bank.</p>	A
	<p><i>b) Cross-country Comparability</i> Many countries have a minimum capital requirement but allow businesses to pay only part of it before registration, with the rest to be paid after the first year of operation. Countries that follow this procedure naturally have a lower paid-in minimum of capital requirement. The indicator is therefore <u>comparable to some extent</u>.</p>	B
<b>3. Availability</b>	<p><i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.</p>	A
	<p><i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.</p>	A
<b>Source</b>	<p>The World Bank. Doing Business, Explore topic: Starting a Business. Available online: <a href="http://www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx">http://www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx</a></p>	

Minimum of Capital Required for Starting a Business as a percentage of income per capita



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.6 Import Burdens

### Definition:

The indicator is an average of three measurements: 1) Number of all documents required to import the goods, 2) Number of signatures required to import the goods, 3) Time necessary to comply with all procedures required to import goods (Exhibit 1).

The three sub-indicators have been normalized on a scale from 1 to 100 before taking the average and thereby constructing the indicator.

### Exhibit 1

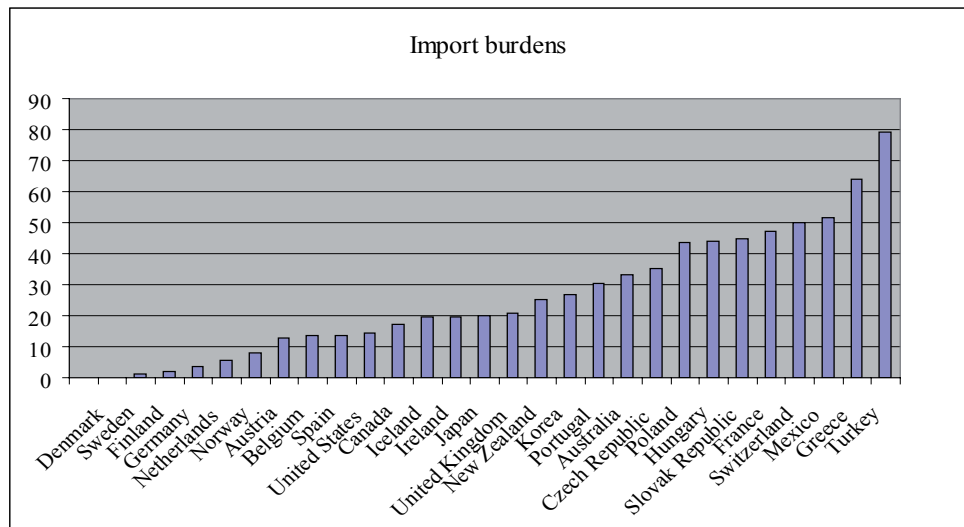
The indicator assumes the following in regards to the business and the importing process:

- The business:
  - o Has 200 or more employees.
  - o Is located in the country's most populous city.
  - o Is a private, limited liability company. It does not operate within an export processing zone or an industrial estate with special export or import privileges.
  - o Is domestically owned with no foreign ownership.
  - o Exports more than 10% of its sales.

- The traded product travels in a dry-cargo, 20-foot, full container load. The product:
  - o Is not hazardous nor does it include military items.
  - o Does not require refrigeration or any other special environment.
  - o Does not require any special phytosanitary or environmental safety standards other than accepted international standards.
- All documents required to export and import the goods are recorded. It is assumed that the contract has already been agreed upon and signed by both parties. Documents include bank documents, customs declaration and clearance documents, port filing documents, import licenses and other official documents exchanged between the concerned parties. Documents filed simultaneously are considered different documents but with the same time frame for completion.
- Time is recorded in calendar days. The time calculation for a procedure starts from the moment it is initiated and runs until it is completed. If a procedure can be accelerated for an additional cost, the fastest legal procedure is chosen. It is assumed that neither the exporter nor the importer wastes time and that each commits to completing each remaining procedure without delay. Procedures that can be completed in parallel are measured as simultaneous for the purpose of measuring time. The waiting time between procedures (for example, during unloading of the cargo) is included in the measure.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The size of import burdens is a <u>direct</u> measure of an entrepreneur's access to foreign markets.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the import burdens will have a <u>direct</u> impact on entrepreneurs' access to foreign markets.	A

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - collected and computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A
<b>Source</b>	The World Bank. Doing Business, Explore topic: Trading across borders. The three indicators used to construct this indicator are available at: <a href="http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/">http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/</a>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*



## 4.7 Export Burdens

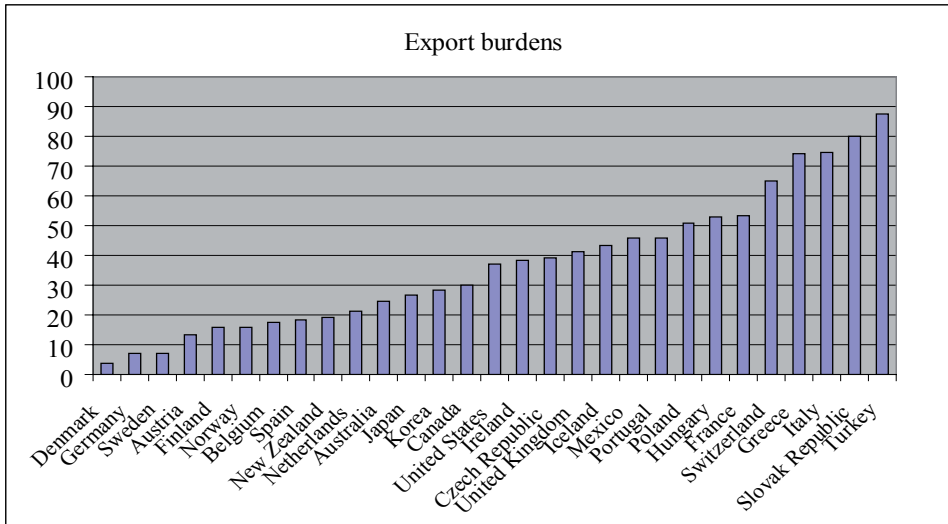
### Definition:

The indicator is an average of three measurements: 1) Number of all documents required to export the goods, 2) Number of signatures required to export the goods, 3) Time necessary to comply with all procedures required to export goods (see Exhibit 1 for the indicator import burdens).

The three sub-indicators have been normalized on a scale from 1 to 100 before taking the average and thereby constructing the indicator.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of an entrepreneur's access to foreign markets, namely export burdens.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the export burdens will have a <u>direct</u> impact on entrepreneurs' access to foreign markets.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A

<b>Source</b>	The World Bank. Doing Business, Explore topic: Trading across borders. The three indicators used to construct this indicator are available at: <a href="http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/">http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/</a>
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.8 Capital Access Index

### Definition:

The fundamental objective of the Capital Access Index (CAI) is to evaluate the ability of new and existing businesses to access capital in countries around the world. The Capital Access Index is calculated using the weighted average of the seven subcategories: Macroeconomic Environment, Institutional Environment, Financial and Banking Institutions, Equity Market Development, Bond Market Development, Alternative Sources of Capital and International Access (Exhibit 1).

### Exhibit 1

Description of the seven subcategories

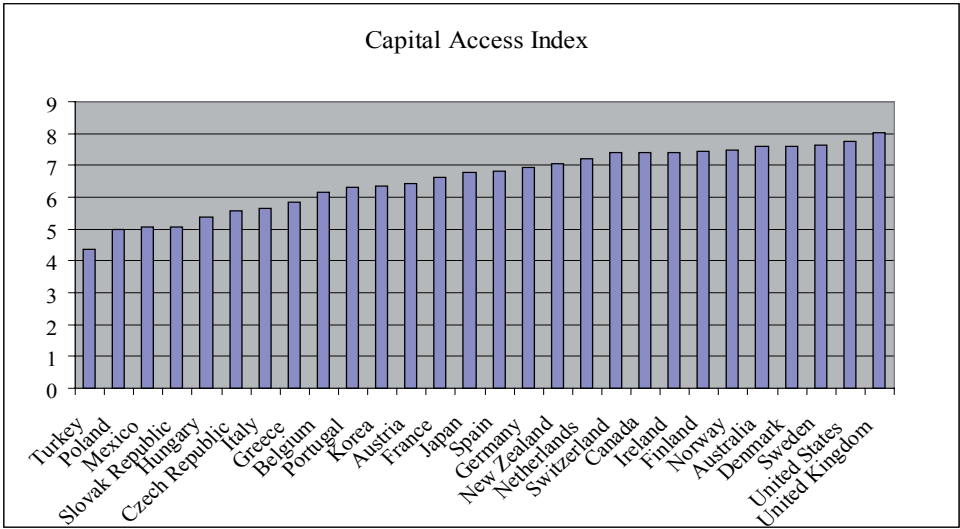
- The Macroeconomic Environment (ME) category captures the extent to which a country's macroeconomic environment is favourable to the running and financing of a business. Macroeconomic variables include low and stable inflation and interest rates, low tax rates, and a level of financial sophistication compared with international norms.
- Institutional Environment (IE) reflects the extent to which a country has the institutions needed to support and enhance business financing activities. That includes enforceable property rights, an efficient judicial system, efficient bankruptcy procedures and a low-corruption environment.
- Financial and Banking Institutions (FI) measures the level of involvement of deposit-taking institutions in financing businesses. Some of the variables included in FI are the level of private sector credit extended by deposit taking institutions, the soundness of financial institutions, the ease of access to bank loans, and the efficiency of the banking system.
- Equity Market Development (EM) reflects the extent to which financing of business operations is important for a given country. Some of the EM variables include: stock market capitalization to GDP, the liquidity of the stock market, and changes in the number of listings.

- Bond Market Development (BM) captures the importance of bond financing of business operations. Some of the BM variables include: the size of private and public bonds to GDP and the securitized asset issuance to GDP.
- Alternative Sources of Capital (AC) measures a country's use of such financing tools as venture capital, private placements and credit cards.
- International Access (IA) measures the level of foreign capital available to businesses in a particular country and includes variables such as the volatility of exchange rates, international reserve holdings, portfolio and FDI capital inflows and outflows, and sovereign ratings.

The calculations of the various scores:

- Step 1:  
The non-surveyed or missing variables in FI, EM, BM, AC and IA sub-categories are assigned a score of zero. This reflects the fact that the industry or sector in question is either missing or so small that its effect on capital access is immaterial.
- Step 2:  
The variables are ranked by every decile according to the directional relationship to capital access. The resulting scores of one to 10 are then assigned for countries ranking lowest to highest in terms of capital access. The score for each sub-category is calculated by a simple average of the variables, but only if the data in the category is greater or equal to 50 percent of the total variables in that category.
- The Capital Access Index is calculated using the weighted average of the seven subcategories. The first two subcategories—ME and IE—are weighted 25 percent each, and the other five sub-categories—FI, EM, BM, AC and IA—each are weighted as 10 percent of the final CAI score. Theoretically, the scores can range from zero to 10. However, because every country has some kind of macroeconomic and institutional structure, the minimum for each of these two categories is one; therefore the lowest possible score can only be 0.5.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The Capital Access Index is a <u>direct</u> measure of the efficiency and strength of countries financial markets.	A
	<i>b) Assessment of Policy Indicator Typology</i> The ability of new and existing businesses to access capital is the <u>outcome</u> of an efficient policy framework for getting access to capital and thus not a direct measure of the regulation per se.  Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator. Based on the statistics from the following corporations: International Financial Statistics, Heritage Foundation, World Economic Forum, World Bank Doing Business Database, International Country Risk Guide, Moody's Ratings, Thomson Financial SDC Platinum, S&P Emerging Market Fact book, Bank of International Settlements, Thomson Financial Data stream, The Nilson Report, Fitch Ratings and Standard and Poor's Ratings	A
	<i>b) Cross-country Comparability</i> The capital access index is <u>not fully comparable</u> across countries.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> Except from Iceland and Luxembourg the indicator covers all OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005. The data will be updated annually.	A
<b>Source</b>	Milken institute. Best Markets for entrepreneurial finance, 2005 Capital Access Index – Securitization in financing economic Activities.	



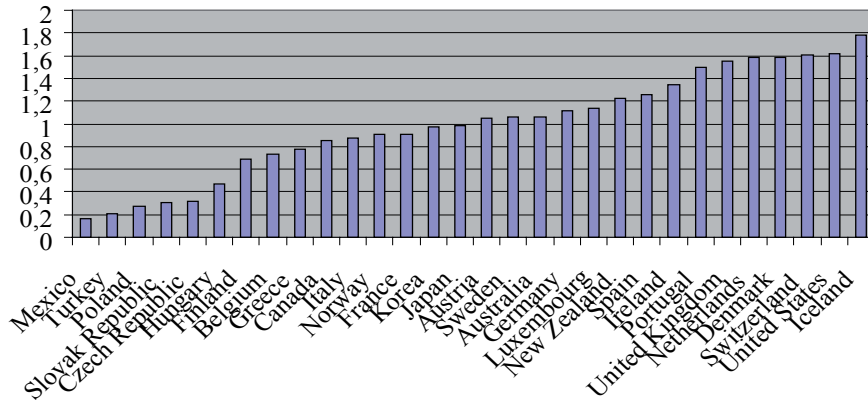
## 4.9 Private Credit

### Definition:

The indicator measures the ratio of credit towards the private sector from deposit-taking financial institutions relative to GDP.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i> The ratio of private credit relative to GDP is <u>direct</u> measure of the supply of debt-capital.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i> The ratio of private credit relative to GDP is the <u>outcome</u> of an efficient policy framework for getting access to capital and thus not a direct measure of the regulation per se.</p> <p>Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.</p>	B
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i> The indicator is <u>fact</u>-based.</p>	A
	<p><i>b) Cross-country Comparability</i> <u>Fully comparable</u>. The same methodology is used in every country.</p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.</p>	A
	<p><i>b) Availability over Time</i> The indicator is updated annually.</p>	A
<b>Source</b>	The indicator is updated annually by FORA based on data from IMF International Financial Statistics. Available online: <a href="http://papers.ssrn.com/sol3/papers.cfm?abstract_id=637301">http://papers.ssrn.com/sol3/papers.cfm?abstract_id=637301</a> .	

### Private Credit



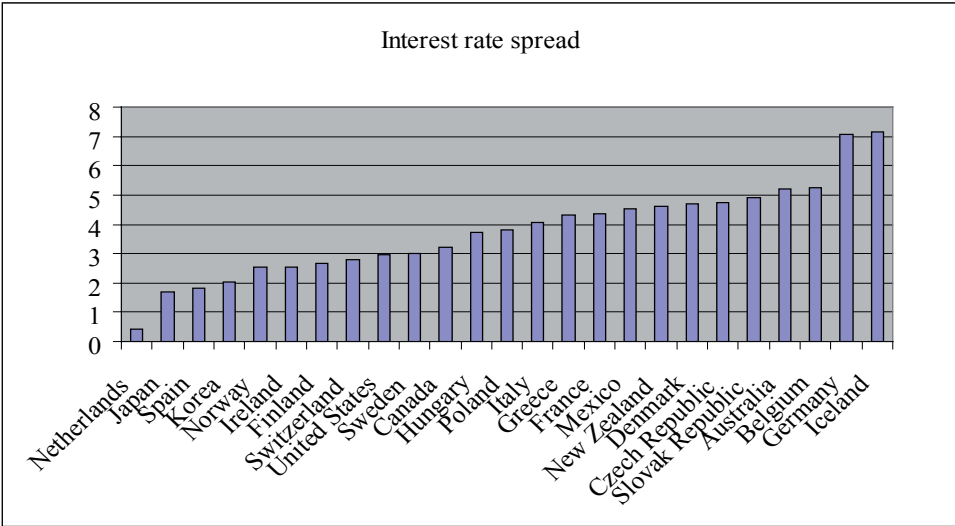
## 4.10 Interest Rate Spread

### Definition:

The indicator measures the lending rate minus deposit rate based on an average of annual rates for each country.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i> The interest rate spread reflects the level of price competition in the credit markets, but is only a <u>proxy</u> measure of the supply and accessibility of debt-capital.</p>	B
	<p><i>b) Assessment of Policy Indicator Typology</i> The interest rate spread relative to GDP is the <u>outcome</u> of an efficient policy framework for capital markets and thus not a direct measure of the regulation <i>per se</i>.</p> <p>Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.</p>	B
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i> The indicator is <u>fact</u>-based.</p>	A
	<p><i>b) Cross-country Comparability</i> <u>Fully comparable</u>. The same methodology is used in every country.</p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.</p>	A
	<p><i>b) Availability over Time</i> The indicator is accessible for the years 1995 - 2004 and will be updated annually.</p>	A

<b>Source</b>	<p>The data is derived from International Financial Statistics (IFS) published by IMF and national sources. Available online:  <a href="http://ifs.apdi.net/imf/ifsBrowser.aspx?Entry=0050492_PUB&amp;sType=other&amp;QueryType=other&amp;ShowSeries=True">http://ifs.apdi.net/imf/ifsBrowser.aspx?Entry=0050492_PUB&amp;sType=other&amp;QueryType=other&amp;ShowSeries=True</a>.</p>
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

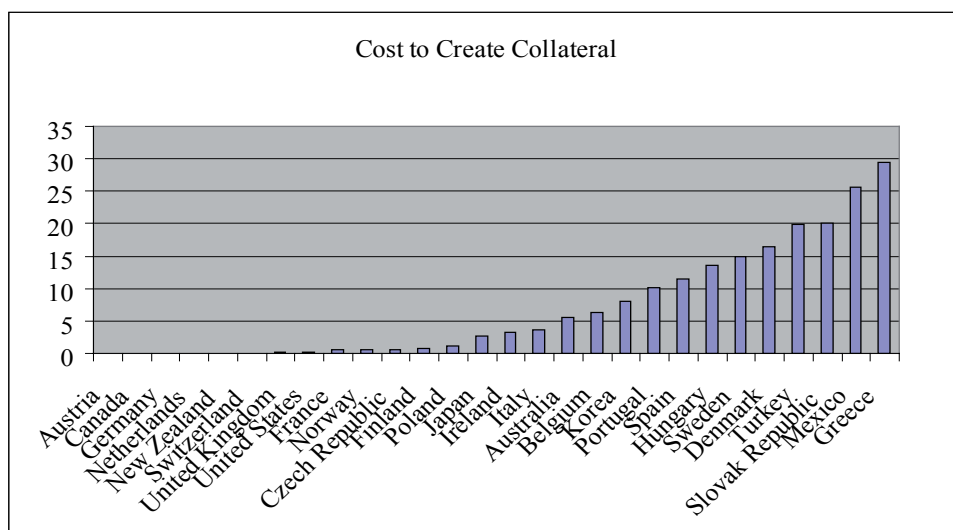
## 4.11 Cost to Create Collateral

### Definition:

The indicator measures the creditor's cost associated with creating and registering collateral. The cost measure is presented as a percentage of income per capita.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i></p> <p>The cost to create collateral is a direct measure of the ease of creating and registering collateral, which would make creditors more motivated to assist entrepreneurs but it is only a <u>proxy</u> measure of the supply and accessibility of debt capital.</p>	B
	<p><i>b) Assessment of Policy Indicator Typology</i></p> <p>Policy focused indicator. Changing formal regulation (collateral and insolvency laws) will have <u>direct</u> impact on the size of the indicator.</p>	A
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p>The indicator is <u>fact</u>-based and is based on research on collateral and insolvency laws, and responses to a World Bank survey on secured transactions laws.</p>	A
	<p><i>b) Cross-country Comparability</i></p> <p><u>Fully comparable</u>. The data is based on standardised case and based on research of collateral and insolvency laws and responses to a survey on secured transactions laws, developed with input and comments from experts, including from the Center for Economic Analysis of Law, the International Bar Association Committee E8 on Financial Law, and the European Bank for Reconstruction and Development.</p>	A

<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A
	<i>b) Availability over Time</i> The indicator will be updated annually.	A
<b>Source</b>	World Bank - Doing Business. Available online: <a href="http://rru.worldbank.org/DoingBusiness/Explore-Topics/GettingCredit/CompareAll.aspx">http://rru.worldbank.org/DoingBusiness/Explore-Topics/GettingCredit/CompareAll.aspx</a> .	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.12 Country Credit Rating

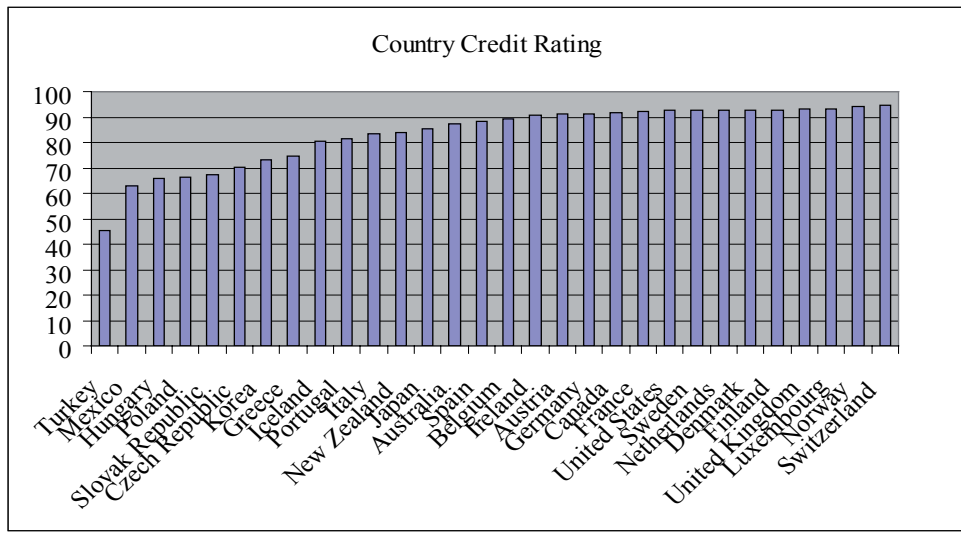
### Definition:

The indicator measures the country credit rating, which is based on an assessment by the Institutional Investor Magazine Ranking.

The ranking goes from 1 (worst) to 100 (best).

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> Country credit rating indicates the risks of lending capital to specific countries, but it is only a <u>proxy</u> measure of the supply and accessibility of debt-capital to individual entrepreneurs.	B
	<i>b) Assessment of Policy Indicator Typology</i> The country credit rating is the <u>outcome</u> of individual investor's assessments of each country's credibility. Policy initiatives will only have an <u>indirect</u> impact on other people's assessment of each country's credibility.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based as information is provided by senior economist and sovereign risk analysts at leading global banks and money management and securities firms.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same methodology is used in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for 60 industrialised and emerging countries.	A
	<i>b) Availability over Time</i> The indicator will be updated annually.	A

<b>Source</b>	<p>The data is published by the Institute for Management Development (IMD), Competitiveness Yearbook 2006, Switzerland, Sources Institutional Investor, September 2005.</p> <p><a href="http://www.worldcompetitiveness.com/OnLine/App/Index.htm">http://www.worldcompetitiveness.com/OnLine/App/Index.htm</a></p>
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## 4.13 Legal Rights Index

### Definition:

Legal Rights Index measures the degree to which collateral and bankruptcy laws facilitate lending (exhibit 1).

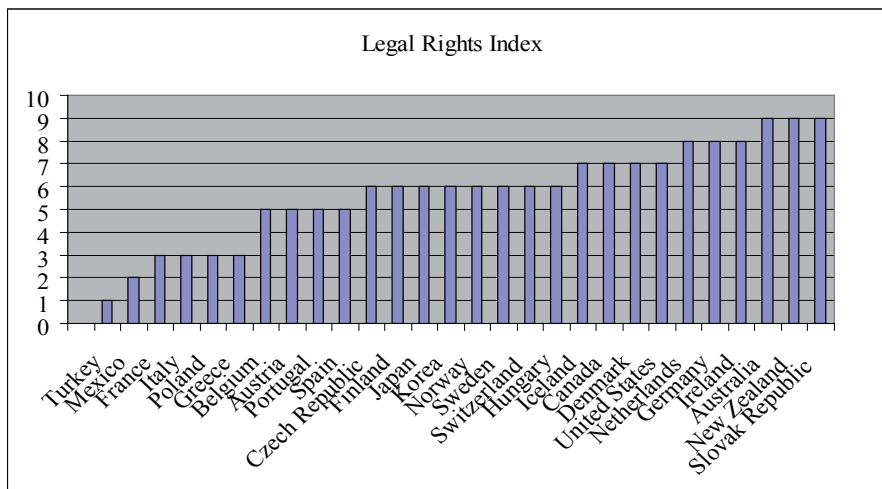
The index ranges from 0 to 10, with higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit.

### Exhibit 1

The index includes 7 aspects related to legal rights in collateral law and 3 aspects in bankruptcy law. A score of 1 is assigned for each of the following features of the laws:

- General rather than specific description of assets is permitted in collateral agreements.
- General rather than specific description of debt is permitted in collateral agreements.
- Any legal or natural person may grant or take security in the property.
- A unified registry operates that includes charges over movable property
- Secured creditors have priority outside of bankruptcy.
- Secured creditors, rather than other parties such as government or workers, are paid first out of the proceeds from liquidating a bankrupt firm.
- Secured creditors are able to seize their collateral when a debtor enters reorganization; there is no “automatic stay” or “asset freeze” imposed by the court.
- Management does not stay during reorganization. An administrator is responsible for managing the business during reorganization.
- Parties may agree on enforcement procedures by contract.
- Creditors may both seize and sell collateral out of court without restriction.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i></p> <p>The Legal Rights Index is an <u>indirect</u> measure of entrepreneurs' access to capital through loans. Higher protection of borrowers and lenders rights facilitates the lending process.</p>	<b>B</b>
	<p><i>b) Assessment of Policy Indicator Typology</i></p> <p>Policy focused indicator. Changing formal regulations will have a <u>direct</u> impact on the legal rights index.</p>	<b>A</b>
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p>The data is <u>fact</u>-based. Data originating from the World Bank.</p>	<b>A</b>
	<p><i>b) Cross-country Comparability</i></p> <p><u>Fully comparable</u> - computed using the same methodology for all countries.</p>	<b>A</b>
<b>3. Availability</b>	<p><i>a) Availability across Countries</i></p> <p>The indicator is available for all OECD countries and for most World Bank countries.</p>	<b>A</b>
	<p><i>b) Availability over Time</i></p> <p>The indicator is available for 2005 and will be updated annually.</p>	<b>B</b>
<b>Source</b>	The World Bank. Doing Business, Explore topic: Getting Credit. Available online: <a href="http://www.doingbusiness.org/ExploreTopics/GettingCredit/">http://www.doingbusiness.org/ExploreTopics/GettingCredit/</a>	



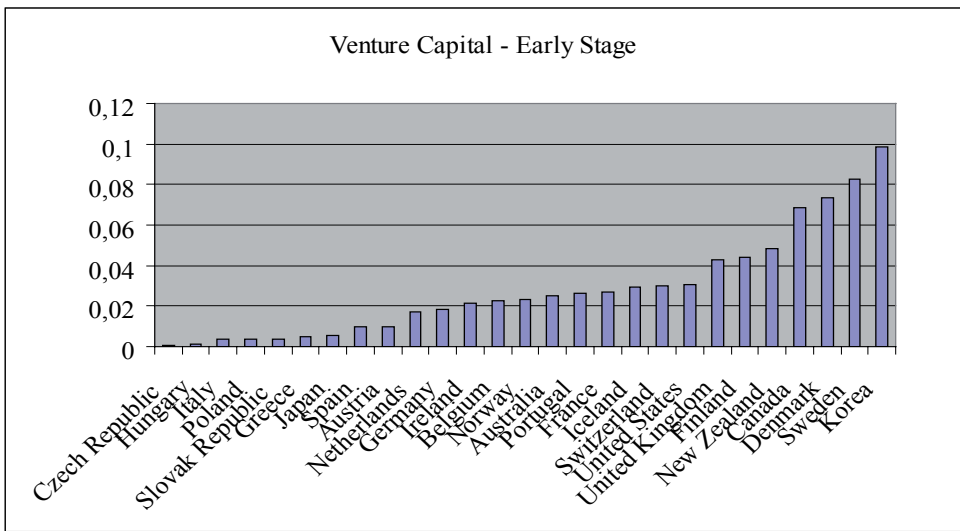
## 4.14 Venture Capital - Early Stage

### Definition:

The indicator measures the total early stage venture capital investment per year as a share of GDP.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The amount of early stage venture capital is a <u>direct</u> measure of the supply of early stage venture capital in each country.	A
	<i>b) Assessment of Policy Indicator Typology</i> Although the government can take initiatives to build up new national venture funds via direct investments, the amount of early stage venture capital is primarily the <u>outcome</u> of an efficient policy framework for venture capital markets and thus not a direct measure of the regulation per se.  Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based.	A
	<i>b) Cross-country Comparability</i> <u>Comparable to some extent</u> . The definition of expansion stage versus other stages may vary from country to country. The data for the US is not directly comparable to the data from the other countries as only part of the US expansion capital investment is included.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A

	<p><i>b) Availability over Time</i></p> <p>The indicator is available from 1998 to 2004. The data will not be updated every year.</p>	A
<b>Source</b>	<p>Data for European countries: Eurostat 2006, Data for the US: NVCA, Data for Australia: AVCA.</p> <p>Link for EU: <a href="http://epp.eurostat.ec.eu.int/portal/page?_pageid=1996,39140985&amp;_dad=portal&amp;_schema=PORTAL&amp;screen=detailref&amp;language=en&amp;product=Yearlies_new_science_technology&amp;root=Yearlies_new_science_technology/I/I4/ir061">http://epp.eurostat.ec.eu.int/portal/page?_pageid=1996,39140985&amp;_dad=portal&amp;_schema=PORTAL&amp;screen=detailref&amp;language=en&amp;product=Yearlies_new_science_technology&amp;root=Yearlies_new_science_technology/I/I4/ir061</a></p>	



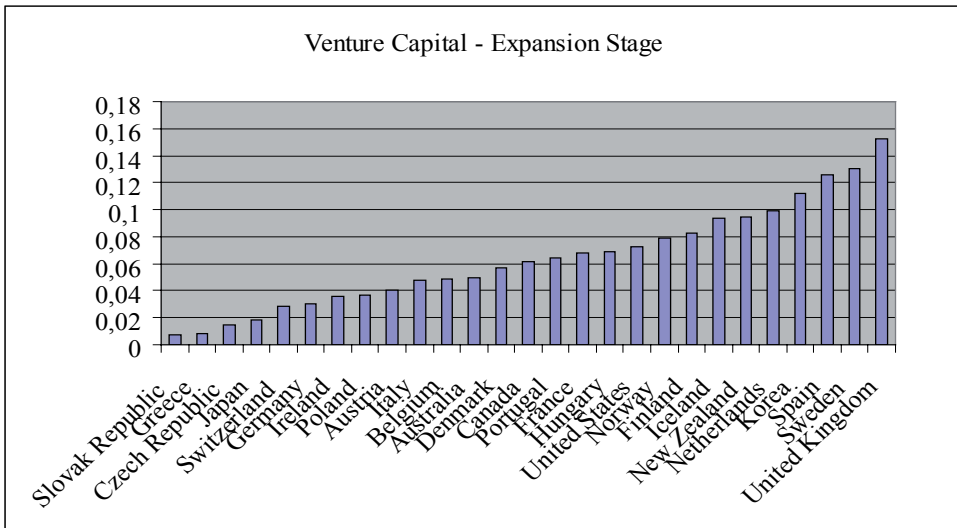
## 4.15 Venture Capital - Expansion Stage

### Definition:

The indicator measures the total expansion stage venture capital investment per year as a share of GDP.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The amount of expansion stage venture capital is a <u>direct</u> measure of the supply of expansion stage venture capital in each country.	A
	<i>b) Assessment of Policy Indicator Typology</i> Although the government can take initiatives to build up new national venture funds via direct investments, the amount of expansion stage venture capital is primarily the <u>outcome</u> of an efficient policy framework for venture capital markets and thus not a direct measure of the regulation per se.  Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is fact-based.	A
	<i>b) Cross-country Comparability</i> <u>Comparable to some extent.</u> The definition of early stage versus other stages may vary from country to country.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available from 1998 to 2003. The data will not be updated every year.	A

<b>Source</b>	<p>Data for European countries: Eurostat 2006, Data for the US: NVCA, Data for Canada: CVCA, Data for Australia: AVCA.</p> <p>Link for EU:  <a href="http://epp.eurostat.cec.eu.int/portal/page?_page-id=1996,39140985&amp;_dad=portal&amp;_schema=PORTAL&amp;screen=detailref&amp;language=en&amp;product=Yearlies_new_science_technology&amp;root=Yearlies_new_science_technology/I/I4/ir062">http://epp.eurostat.cec.eu.int/portal/page?_page-id=1996,39140985&amp;_dad=portal&amp;_schema=PORTAL&amp;screen=detailref&amp;language=en&amp;product=Yearlies_new_science_technology&amp;root=Yearlies_new_science_technology/I/I4/ir062</a></p>
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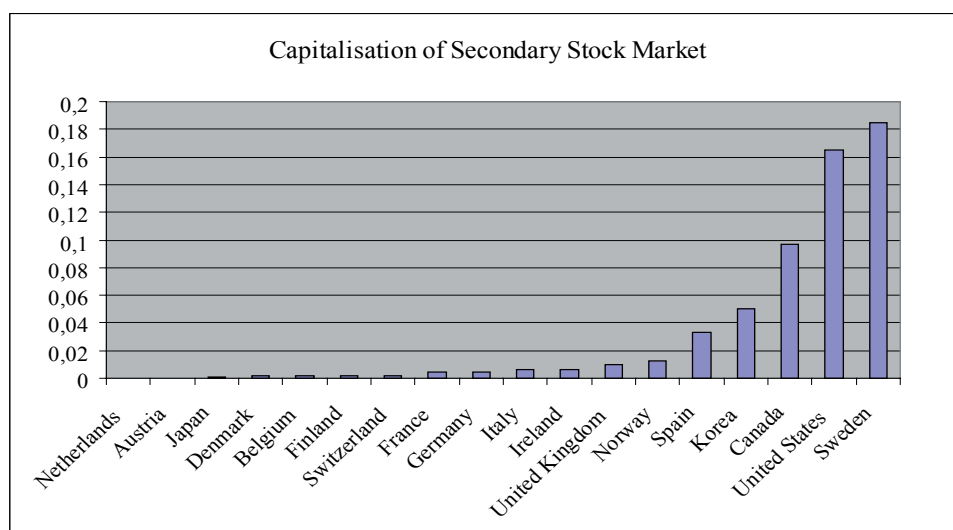
## 4.16 Capitalisation of Secondary Stock Market

### Definition:

The indicator measures the capitalisation of the secondary stock market (the value of the issued shares on the market) in percentage of GDP.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of the supply and accessibility of expansion capital.  An efficient secondary stock market is a facilitator of expansion capital and indirectly a source to more capital in earlier investment phases.	A
	<i>b) Assessment of Policy Indicator Typology</i> The size of the secondary capital market is primarily the <u>outcome</u> of market-based initiatives and an efficient policy framework for stock markets. It is not a direct measure of the regulation per se.  Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A

	<p><i>b) Availability over Time</i></p> <p>The indicator is available for the average of year 1999 -2002.</p> <p>The data will not be updated every year, but may be updated in the future if funding is found.</p>	B
<b>Source</b>	<p>The data is published by OECD, Venture Capital: Trends and Policy Recommendations, p. 25. Available online: <a href="http://www.oecd.org/dataoecd/4/11/28881195.pdf">http://www.oecd.org/dataoecd/4/11/28881195.pdf</a>.</p>	



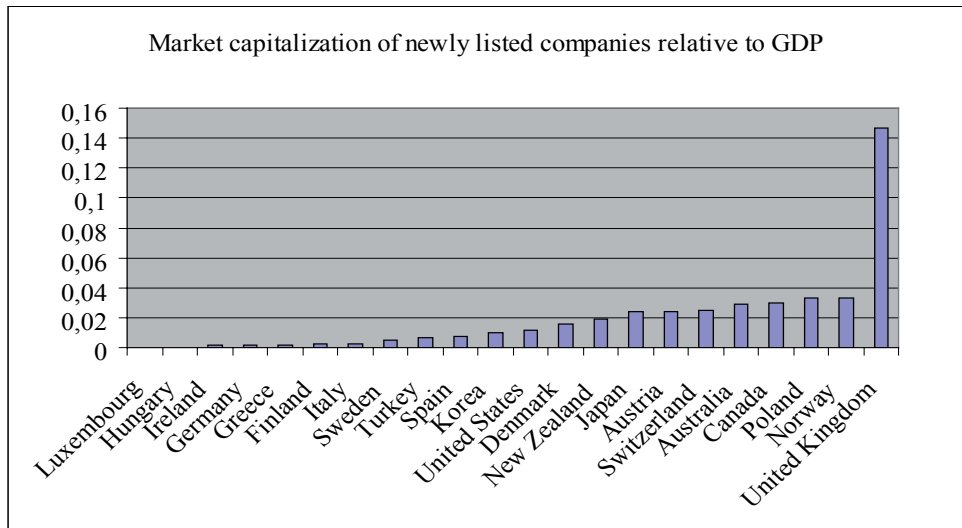
## 4.17 Market Capitalisation of Newly-Listed Companies Relative to GDP

### Definition:

The indicator measures the market capitalization of newly listed domestic shares relative to GDP. The market capitalization of newly listed domestic shares is the total number of new shares issued multiplied by their value on the first day of quotation.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of the supply and accessibility of new capital	A
	<i>b) Assessment of Policy Indicator Typology</i> The market capitalization of newly listed companies is primarily the <u>outcome</u> of market-based initiatives and an efficient policy framework for stock markets. Policy initiatives will therefore only have an <u>indirect</u> impact on the market capitalization of newly listed companies.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based and originates from the World Federation of Exchange.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> because the same methodology is used in all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for 22 OECD countries.	B
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A

<b>Source</b>	<p>World Federation of Exchange, annual report 2005 (data for Denmark: Copenhagen stock exchange, statistics 2005).</p> <p>Available online:  <a href="http://www.worldexchanges.org/publications/WFE%202005%20Annual%20Report.pdf">http://www.worldexchanges.org/publications/WFE%202005%20Annual%20Report.pdf</a></p>
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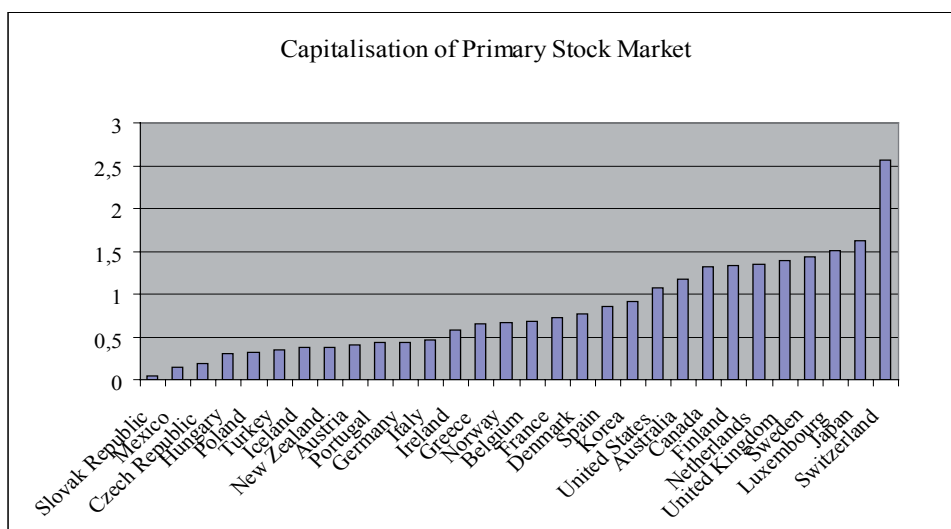
## 4.18 Capitalisation of Primary Stock Market

### Definition

The indicator measures the capitalisation of the primary stock market (the value of the issued shares on the market) in percentage of GDP. The indicator is measured as the average of the years 1997-2001.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i></p> <p>The indicator is a <u>direct</u> measure of the supply and accessibility of expansion capital.</p> <p>An efficient primary stock market is a facilitator of access to expansion capital and indirectly a source to more capital in earlier investment phases.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i></p> <p>The size of the primary capital market is primarily the <u>outcome</u> of market-based initiatives and an efficient policy framework for stock markets. It is not a direct measure of the regulation <i>per se</i>.</p> <p>Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the outcome of regulation.</p>	B
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p>The indicator is <u>fact</u>-based and originates from the World Bank and Standard and Poor's Emerging Market Database.</p>	A
	<p><i>b) Cross-country Comparability</i></p> <p><u>Fully comparable.</u></p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i></p> <p>The indicator is available for all OECD countries and for most World Bank countries.</p>	A

	<i>b) Availability over Time</i> The indicator is available for the year 2004 and will be updated annually.	A
<b>Source</b>	WORLD FEDERATION OF EXCHANGES (DOMESTIC MARKET CAPITALIZATION), OECD economic outlook (GDP), Statistics Denmark (exchange rates) <a href="http://www.world-exchanges.org/publications/WFE%202004%20Annual%20Report%20and%20Statistics.pdf">http://www.world-exchanges.org/publications/WFE%202004%20Annual%20Report%20and%20Statistics.pdf</a>	



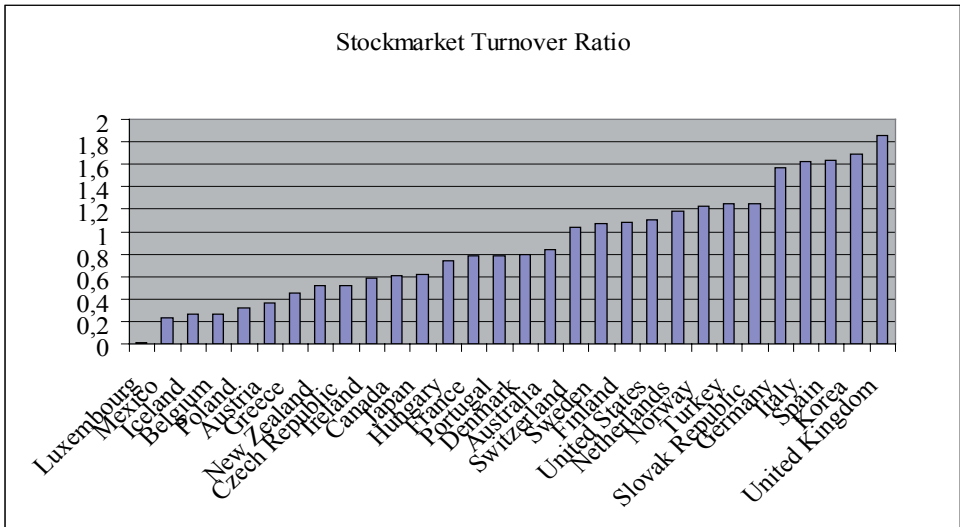
## 4.19 Turnover in Primary Stock Market

### Definition:

The indicator measures the total shares traded on the stock market exchange in percentage of GDP. The indicator is the average of years 1997- 2001.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i></p> <p>The total number of shares traded on the stock market is an indication of the well functioning and efficiency of the capital market.</p> <p>The total number of shares is a <u>direct</u> measure of the accessibility of expansion capital via the stock market.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i></p> <p>The total number of shares traded on the stock market is primarily the <u>outcome</u> of market-based initiatives and an efficient policy framework for stock markets. It is not a direct measure of the regulation per se.</p> <p>Policy initiatives will only have an <u>indirect</u> impact on an indicator measuring the <i>outcome</i> of regulation.</p>	
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p>The indicator is <u>fact</u>-based and originates from the World Bank and Standard and Poor's Emerging Market Database.</p>	A
	<p><i>b) Cross-country Comparability</i></p> <p><u>Fully comparable.</u></p>	
<b>3. Availability</b>	<p><i>a) Availability across Countries</i></p> <p>The indicator is available for all OECD countries and for most World Bank countries.</p>	A

	<i>b) Availability over Time</i> The indicator is available for the year 2004 and will be updated annually.	A
<b>Source</b>	World Bank and Standard and Poor's Emerging Market Database. Available online: <a href="http://www.worldbank.org/research/projects/finstructure/structure_database.xls">http://www.worldbank.org/research/projects/finstructure/structure_database.xls</a> .	

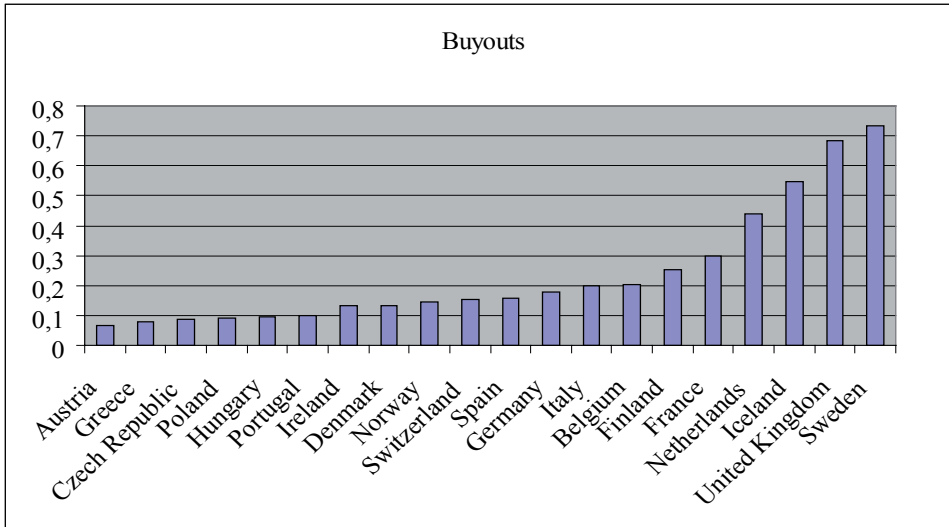


## 4.20 Buyouts

### Definition:

A transaction in which a business, business unit or company is acquired from the current shareholders. The indicator is measured as a percentage of GDP and is calculated as an average of the period 1999-2002.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The number of buyouts is a <u>direct</u> measure of businesses' choice to exit the stock market.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy initiatives will only have an <u>indirect</u> impact on the number of buyouts.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Not fully comparable</u> - Method of collecting data varies among countries. Note for Australia, Japan, Korea and New Zealand the average is taken for the period 1998-2002.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> Data is available for 26 OECD countries.	A
	<i>b) Availability over Time</i> Data is available as an average of the period 1999-2002. Future updates are uncertain.	B
<b>Source</b>	OECD, Science, technology and industry. Venture capital: trends and policy recommendations, p.7. Available online: <a href="http://www.oecd.org/dataoecd/4/11/28881195.pdf">http://www.oecd.org/dataoecd/4/11/28881195.pdf</a>	

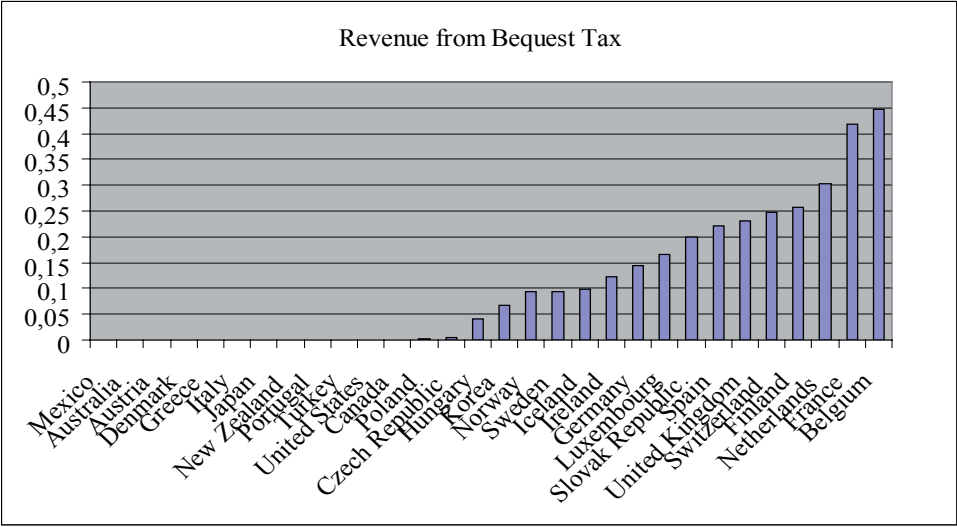


## 4.21 Revenue from Bequest Tax

### Definition:

The indicator measures the revenue from bequest tax as percent of GDP-3 year moving average.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The revenue from bequest tax is a <u>direct</u> measure of wealth tax's negative impact on financial possibilities.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the bequest tax-rates will have a <u>direct</u> impact on the revenue from bequest tax.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for years 1965-2003. The data will be updated every year.	A
<b>Source</b>	Source OECD, Revenue Statistics. Available online: <a href="http://thesius.sourceoecd.org/vl=7366043/cl=22/nw=1/rpsv/-4018/v55n1/s13/p1">http://thesius.sourceoecd.org/vl=7366043/cl=22/nw=1/rpsv/-4018/v55n1/s13/p1</a> .	



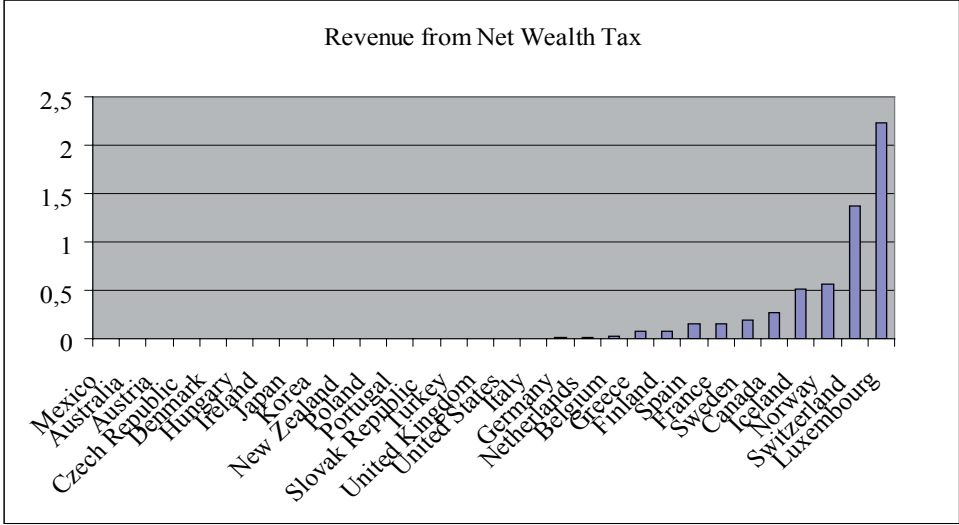
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.22 Revenue from Net Wealth Tax

### Definition:

The indicator measures the revenue from net wealth tax in a 3-year moving average as a percentage of GDP.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The revenue from net wealth tax is a <u>direct</u> measure of wealth tax's negative impact on financial possibilities.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the wealth tax-rates will have a <u>direct</u> impact on the revenue from wealth tax.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for years 1979-2002. The data will be updated every year.	A
<b>Source</b>	Source OECD, Revenue Statistics. Available online: <a href="http://thesius.sourceoecd.org/vl=7366043/cl=22/nw=1/rpsv/-4018/v55n1/s13/p1">http://thesius.sourceoecd.org/vl=7366043/cl=22/nw=1/rpsv/-4018/v55n1/s13/p1</a> .	



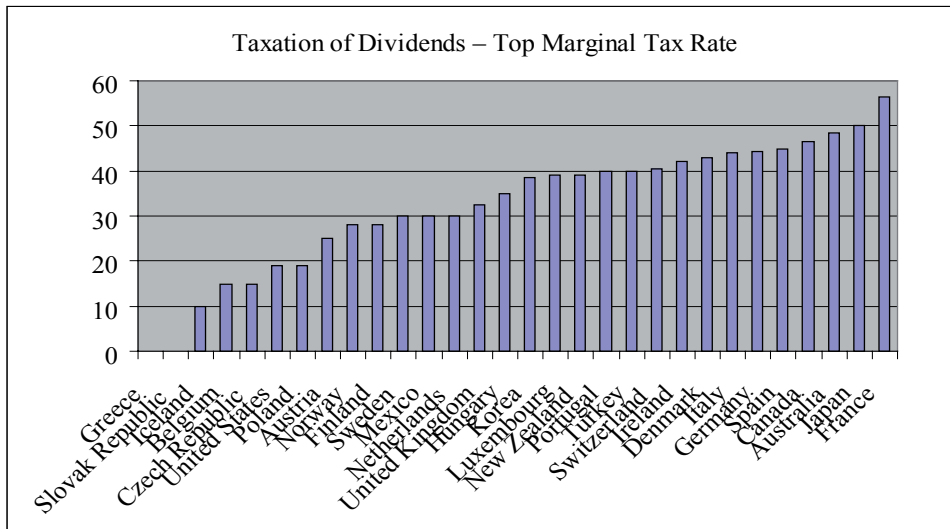
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.23 Taxation of Dividends - Top Marginal Tax Rate

### Definition:

The indicator measures the top marginal tax rate of dividend income.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The top marginal tax rate of dividend income is a <u>proxy</u> measure of the tax-rates negative impact on financial possibilities. The indicator does not take into consideration tax rebates, etc.	B
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the top marginal tax rate will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is fact-based, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries (30 countries).	A
	<i>b) Availability over Time</i> The indicator is available for 2000, but data will not be updated annually.	B
<b>Source</b>	<a href="http://www.world-exchanges.org/publications/WFE%202004%20Annual%20Report%20and%20Statistics.pdf">http://www.world-exchanges.org/publications/WFE%202004%20Annual%20Report%20and%20Statistics.pdf</a> WORLD FEDERATION OF EXCHANGES (DOMESTIC MARKET CAPITALIZATION), OECD economic outlook (GDP), Statistics Denmark (exchange rates)	



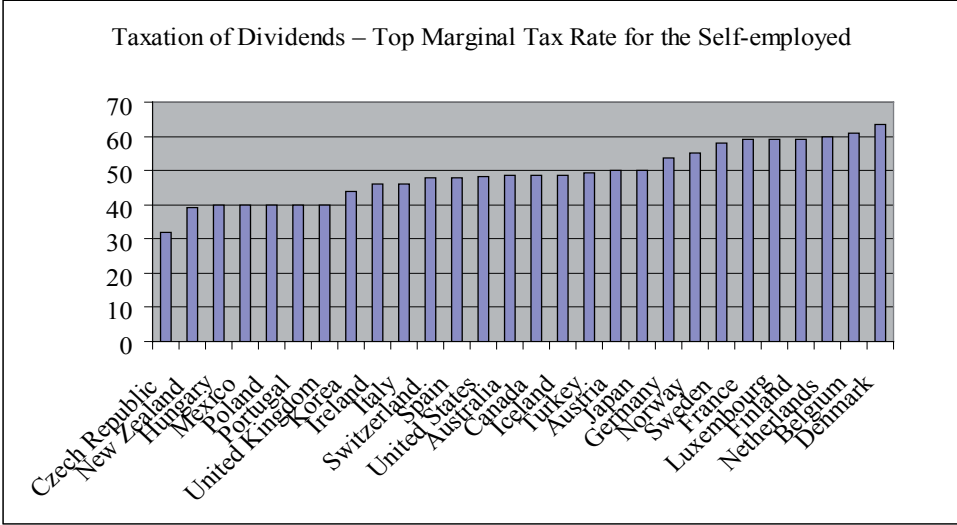
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.24 Taxation of Dividends - Top Marginal Tax Rate for the Self-employed

### Definition:

The indicator measures the top marginal tax rates of dividend income for the self-employed.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The top marginal tax rate of dividend income for the self-employed is a <u>proxy</u> measure of the tax rate's negative impact on financial possibilities. The indicator does not take into consideration tax rebates, etc.	B
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the top marginal tax rate will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for the year 2000, but will not be updated annually.	B
<b>Source</b>	The data are published by OECD, Taxation, SMEs and Entrepreneurship, 2002, p.16. Available online: <a href="http://www.oecd.org/olis/2002doc.nsf/43bb6130e5e86e5fc12569fa005d004c/2137ebc4eaa738a5c1256c10004e37ec/\$FILE/JT00130282.PDF">http://www.oecd.org/olis/2002doc.nsf/43bb6130e5e86e5fc12569fa005d004c/2137ebc4eaa738a5c1256c10004e37ec/\$FILE/JT00130282.PDF</a> .	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.25 Taxation of Stock Options

### Definition:

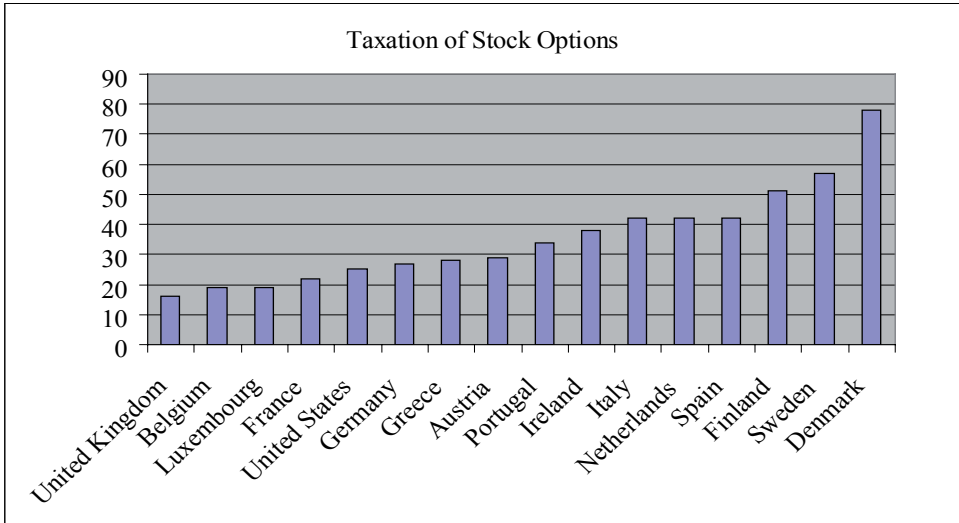
The indicator measures the effective tax rate of stock options for a hypothetical taxpayer with certain assumptions regarding income, family situation and portfolio development (Exhibit 1).

### Exhibit 1

The effective tax rates are calculated for a married person with two children, earning 50 000 € a year and with a grant element of face value equal to 33 % of his salary. The special rates refer to promotional schemes. The calculation is based on the assumption that the employee exercises the options three years after they have been granted and keeps the shares for another two years afterwards. The calculation supposes further an average increase in the stock price of 10 % and an interest rate of 5 %. The estimated annual gross income of options is EUR 50 000. Furthermore, the employee is granted stock options representing a (at grant) stock worth of EUR 16 500.

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator measuring is a <u>direct</u> measure of the negative impact of taxes on new firms' financial possibilities.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the taxation of stock options will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is a <u>fact</u> -based estimate based on Taxation of Stock Options in the EU and the US , a study prepared by Price Waterhouse Coopers for the European Commission, Enterprise Directorate-General, 2002; the estimates are still preliminary.	A

	<i>b) Cross-country Comparability</i> Fully comparable.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the EU member states and US.	B
	<i>b) Availability over Time</i> The indicator is available for 2002. The data will not be updated.	B
<b>Source</b>	The data is published in Benchmarking Enterprise Policy, 2002, EU Commission. Available online: <a href="http://europa.eu.int/comm/enterprise/enterprise_policy/better_environment/doc/enterprise_policy_scoreboard_2002_en.pdf">http://europa.eu.int/comm/enterprise/enterprise_policy/better_environment/doc/enterprise_policy_scoreboard_2002_en.pdf</a> .	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.26 Taxation of Capital Gains on Shares - Short Term

### Definition:

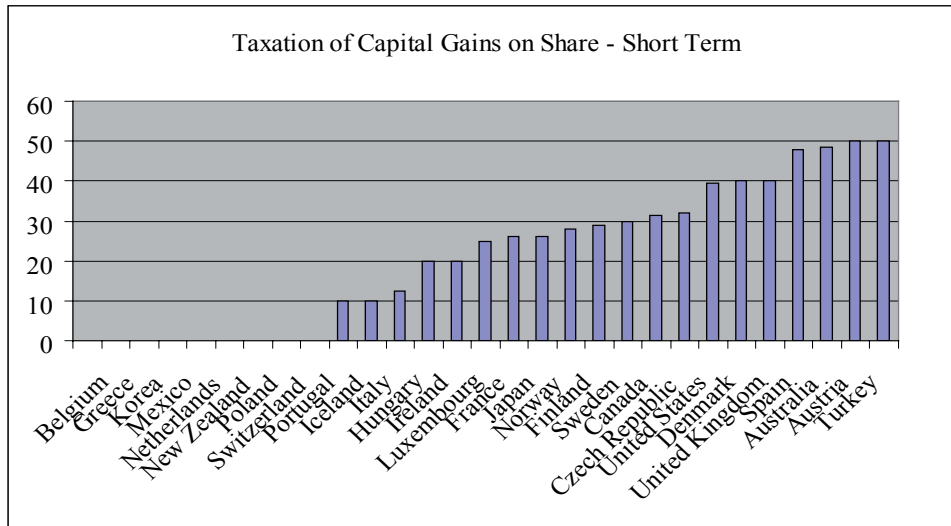
The indicator measures the level of the tax rate when shares are issued and sold in the short term.

The indicator consists of two lower level indicators: one tax rate for companies and one tax rate for individuals (both short term taxation).

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The tax rate of capital gains on shares is a <u>direct</u> measure for the tax rates negative impact on financial possibilities.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the taxation of capital gains on shares will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Comparable to some extent</u> . The taxation may vary across different asset types. Holding periods for short term assets differ across countries as do other conditions.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2002. The data will not be updated.	B

**Source**

The data are published by OECD, Taxation, SMEs and Entrepreneurship, 2002, p. 23. Available online: [http://www.oelis.oecd.org/olis/2002doc.nsf/43bb6130e5e86e5fc12569fa005d004c/2137ebc4eaa738a5c1256c10004e37ec/\\$FILE/JT00130282.PDF](http://www.oelis.oecd.org/olis/2002doc.nsf/43bb6130e5e86e5fc12569fa005d004c/2137ebc4eaa738a5c1256c10004e37ec/$FILE/JT00130282.PDF).



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.27 Taxation of Capital Gains on Shares - Long Term

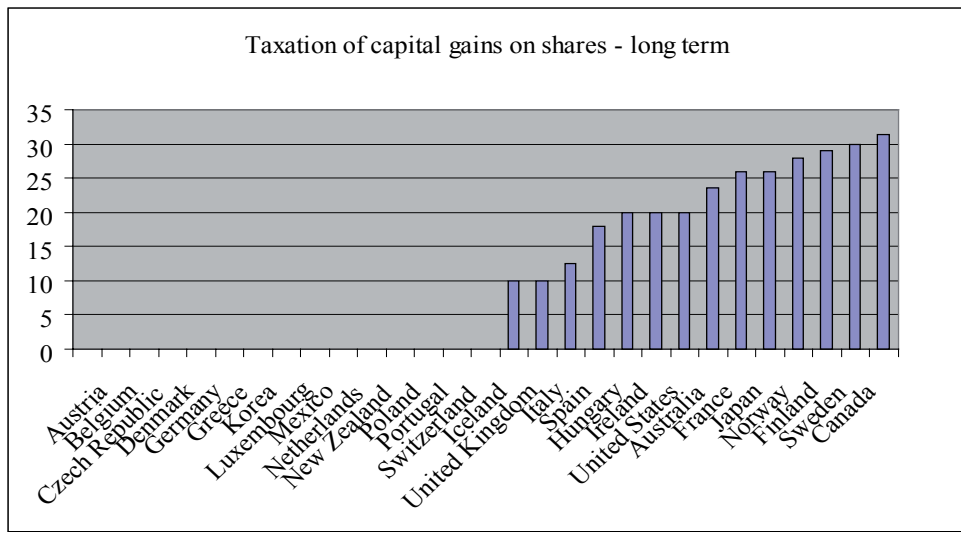
### Definition:

The indicator measures the level of the tax rate when shares are issued and sold in the long term.

The indicator consists of two lower level indicators: one tax rate for companies and one tax rate for individuals (both long term taxation).

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The tax rate of capital gains on shares is a <u>direct</u> measure for the tax rates' negative impact on financial possibilities.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the taxation of capital gains on shares will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Comparable to some extent</u> . The taxation may vary across different asset types. Holding periods for short term assets differ across countries as do other conditions.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the OECD countries (30 countries).	A
	<i>b) Availability over Time</i> The indicator is available for 2000. The data will not be updated annually.	B

<b>Source</b>	The data are published by OECD, Taxation, SMEs and Entrepreneurship, 2002, p. 23. Available online: <a href="http://www.oecd.org/olis/2002doc.nsf/43bb6130e5e86e5fc12569fa005d004c/2137ebc4eaa738a5c1256c10004e37ec/\$FILE/JT00130282.PDF">http://www.oecd.org/olis/2002doc.nsf/43bb6130e5e86e5fc12569fa005d004c/2137ebc4eaa738a5c1256c10004e37ec/\$FILE/JT00130282.PDF</a> .
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.28 Possibility for a Fresh Start

### Definition:

The indicator measures an entrepreneur's possibility to resume running a business after experiencing financial difficulties. A fresh start can be attained through a restructuring of the existing business to avoid bankruptcy or by restructuring debt. (Exhibit 1)

### Exhibit 1

The indicator consists of the following questions:

- Reorganization out-of-court:
  - o Q1 Early warning systems supported by the public sector
  - o Q2 Countries having private supported early warning systems
  - o Q3 Possibility for out-of-court settlements
- Reorganization in court:
  - o Q4 Possibility for in-court reorganization
  - o Q4A Countries having fast track procedures for reorganizing Small and Medium Sized Enterprises (SMEs)
  - o Q7 Countries having courts or sections within courts specialized in restructuring insolvent companies
- Liquidation and discharge:
  - o Q13 What priority is given to the national public authorities' claims on the debtor
  - o Q14 Can an enterprise that is about to be liquidated convert from liquidation to reorganization proceedings?
  - o Q17 and 17B: For how long does the honest business bankruptee usually have to pay back installments (check Ireland)
  - o Q18 Are all debts belonging to an honest business bankruptee discharged in the cases where a discharge is granted
  - o Q21 Honest business bankruptees who has also served as directors of a bankrupt company can be deprived of the right to start a new business

The indicator is quantified as follows:

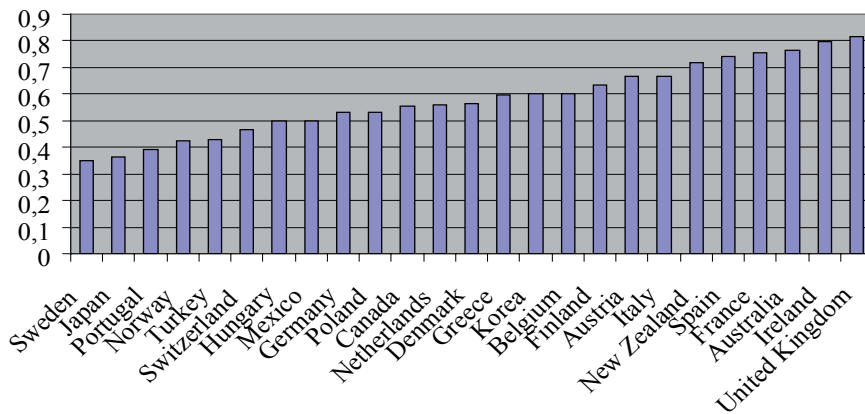
- Q1: yes = 1 point, no = 0 point
- Q2: yes = 1 point, no = 0 point
- Q3: yes = 1 point, yes, but is rarely used = 0.5 point, no = 0 point
- Q4: yes = 1 point, no = 0 point
- Q4A: yes = 1 point, no = 0 point
- Q7: yes = 1 point, no = 0 point
- Q13: 1. Priority = 0 points, 2. or 3. Priority = 0.33 points, 4.-2. Last Priority = 0.66 points, Last Priority = 1 points. (If a government have different priorities the average of these alternatives are used to determine the number of points the country receives).
- Q14: yes = 1 point, no = 0 point
- Q17 and 17B: instantaneously discharge or maximal 1 year = 1 point, 1-3 year = 0.66 point, 4-5 year = 0.33 point, more than 5 years = 0 point.
- Q18: yes = 1 point, In most cases = 0.66, rarely = 0.33, no = 0 point
- Q21: yes = 1 point, no = 0 point

The indicator is constructed on a scale from 0-11.

When a question is not answered an average score from the other questions is given to a country.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of an entrepreneur's restart possibilities.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulations will have a <u>direct</u> impact on an entrepreneur's possibility to restart after experiencing financial difficulties.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The OECD survey "Policy Questionnaire on Bankruptcy" is <u>fact</u> -based.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - the same questions were asked in every country	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for 25 OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005. It is unclear if the indicator will be updated in the future because it will require a new survey.	B
<b>Source</b>	The indicator is constructed on the basis of the OECD survey "Policy Questionnaire on Bankruptcy" which maps out regulation of rehabilitation, liquidation, restructuring of debt and discharge in OECD countries.	

Possibilities for a Fresh Start



## 4.29 Entrepreneurship Education at Primary and Secondary Levels

### Definition:

The indicator measures the perception of entrepreneurial experts of the quantity and quality of entrepreneurship education in primary and secondary levels of the educational system.

The indicator is based on three questions that the experts are asked to answer. The ranking of the questions go from 1 (strongly disagree) to 5 (strongly agree). The indicator is a simple average of the questions (Exhibit 1).

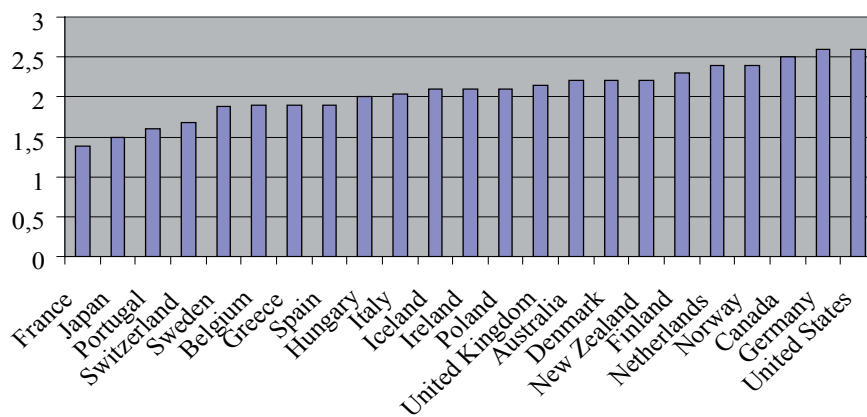
### Exhibit 1:

- Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative.
- Teaching in primary and secondary education provides adequate instruction in market economic principles.
- Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The quantity and quality of entrepreneurship education in higher levels of the educational system is a <u>direct</u> measure of the quality and quantity of entrepreneurial motivated pupils in primary and secondary levels of the educational system.	A

	<i>b) Assessment of Policy Indicator Typology</i> The quantity and quality of entrepreneurship education is an important <u>outcome</u> of an effective educational system and thus not a direct measure of regulation per se. Furthermore, the indicator is opinion-based. Policy measures can only have an <u>indirect</u> impact on the opinions of entrepreneurial experts.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based. The information is provided by entrepreneurial experts' answers to a list of questions in an expert survey, which is part of the GEM/GERA project.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> because the same methodology is used in all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all GEM countries (the list varies from year to year; approximately, 30 countries on average).	A
	<i>b) Availability over Time</i> The indicator is available for 1997-2004. In this time span, some divergence exists in the exact stating of the questions. The data may be updated in the future.	A
<b>Source</b>	The indicator is published by GEM/GERA in specific reports. Not available on the net. GEM/GERA website: <a href="http://www.gemconsortium.org">http://www.gemconsortium.org</a> .	

Entrepreneurship Education at Primary and Secondary Levels



### 4.30 Entrepreneurship Education at Higher Levels

**Definition:**

The indicator measures entrepreneurial experts’ perception of the quantity and quality of entrepreneurship education at higher levels of the educational system.

The indicator is based on three questions that the experts are asked to answer. The ranking of the questions go from 1 (strongly disagree) to 5 (strongly agree). The indicator is a simple average of the questions (exhibit 1).

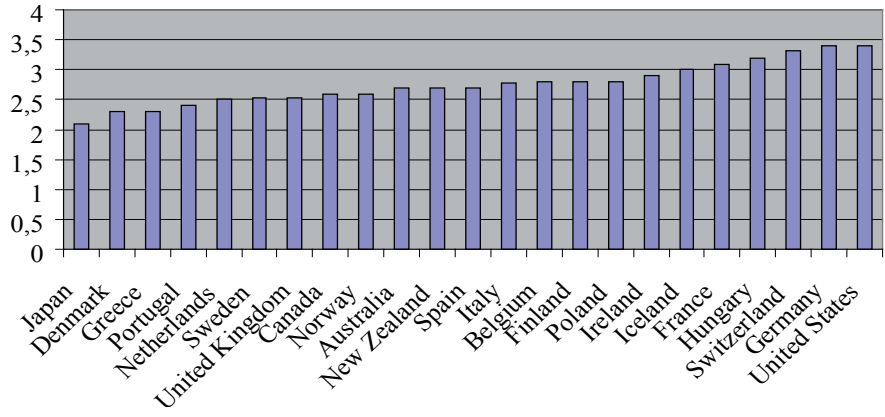
**Exhibit 1:**

- Colleges and universities have enough courses and programs on entrepreneurship.
- The level of business and management education is truly world-class.
- The business and post-graduate educations prepare the students adequately to start their own business.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The quantity and quality of entrepreneurship education in higher levels of the educational system is a <u>direct</u> measure of the quality and quantity of entrepreneurial motivated students in higher levels of the educational system.	A

	<p><i>b) Assessment of Policy Indicator Typology</i></p> <p>The quantity and quality of entrepreneurship education is an important <u>outcome</u> of an effective educational system and, thus, not a direct measure of regulation <i>per se</i>. Furthermore, the indicator is opinion-based. Policy measures can only have an <u>indirect</u> impact on the opinions of entrepreneurial experts.</p>	B
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p>The indicator is <u>opinion</u>-based. The information is provided by entrepreneurial experts' answers to a list of questions in an expert survey, which is part of the GEM/GERA project.</p>	C
	<p><i>b) Cross-country Comparability</i></p> <p><u>Fully comparable</u> because the same methodology is used in all countries.</p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i></p> <p>The indicator is available for all GEM countries (the list varies from year to year; approximately, 30 countries on average).</p>	A
	<p><i>b) Availability over Time</i></p> <p>The indicator is available for 1997-2004. Some divergence exists in the exact stating of the questions through the years. The indicator may be updated.</p>	A
<b>Source</b>	<p>The indicator is published by GEM/GERA in specific reports. Not available on the net. GEM/GERA website: <a href="http://www.gemconsortium.org">http://www.gemconsortium.org</a>.</p>	

Entrepreneurship Education at Higher Education



## 4.31 Quality of Management Schools

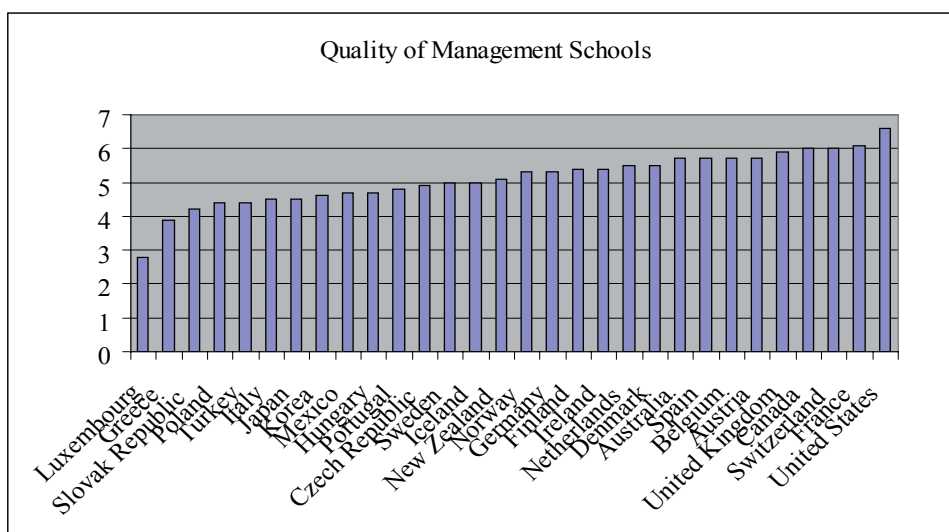
### Definition:

The indicator measures business executives' perception of the quality of management/ business schools.

The indicator is based on the Executive Opinion Survey, which is part of the Global Competitiveness Report. Business executives are asked to state their opinion on the quality of business schools. The ranking goes from 1 (limited or poor quality) – 7 (the best in the world).

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i> High quality of management or business schools is a <u>direct</u> measure of the quality and quantity of management and business schools students.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i> The quality of management or business schools is an important <u>outcome</u> of an effective educational system and, thus, not a direct measure of regulation <i>per se</i>. Furthermore, the indicator is opinion-based. Policy measures can only have an <u>indirect</u> impact on the opinions of business executives.</p>	B
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i> The indicator is <u>opinion</u>-based. The information is provided by leading business executives and entrepreneurs based on the Executive Opinion Survey, which is part of the Global Competitiveness Report 2003-2004.</p>	C
	<p><i>b) Cross-country Comparability</i> <u>Fully comparable</u> because the same methodology is used in all countries.</p>	A

<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all GEM countries (the list varies from year to year; approximately, 30 countries on average).	A
	<i>b) Availability over Time</i> The indicator is available for 1997-2004. Some divergence exists in the exact stating of the questions through the years. The indicator may be updated.	A
<b>Source</b>	World Economic Forum, The Global Competitiveness Report 2003-2004. table 10.16	



## 4.32 Government Programmes

### Definition:

The indicator measures entrepreneurial experts' perception of government programmes created at all levels of government (national, regional, municipal level) in order to assist new and growing firms.

The indicator is based on five questions that the experts are asked to answer. The ranking of the questions go from 1 (strongly disagree) to 5 (strongly agree). The indicator is a simple average of the questions (exhibit 1).

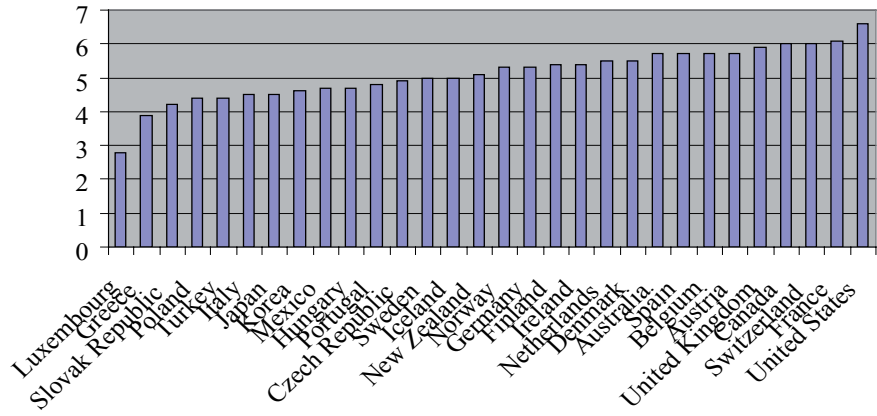
### Exhibit 1:

- The range of government assistance for new and growing firms can be obtained through contact with a single agency.
- Government sponsored incubators provide effective support for new and growing firms.
- There is an adequate number of government programs for new or growing businesses.
- The people working for government agencies are competent and effective in supporting new and growing firms.
- Persons who need help can find the necessary support.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The quantity and quality of governmental support programs is a <u>direct</u> measure of the quality and supply of tightly stitched regional networks of skilled, experienced and specialised advisors.	A

	<i>b) Assessment of Policy Indicator Typology</i> The quantity and quality of governmental programs is an important <u>outcome</u> of an effective public and market-based entrepreneurship-assistance system and, thus, not a direct measure of regulation <i>per se</i> . Furthermore, the indicator is opinion-based. Policy measures can only have an <u>indirect</u> impact on the opinions of entrepreneurial experts.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>opinion</u> -based. The information is provided by entrepreneurial experts' answers to a list of questions in an expert survey which is part of the GEM/GERA project.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> because the same methodology is used in all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all GEM countries (the list varies from year to year; approximately 30 countries on average).	A
	<i>b) Availability over Time</i> The indicator is available for 1997-2004. Some divergence exists in the exact stating of the questions through the years. The indicator may be updated.	A
<b>Source</b>	The indicator is published by GEM/GERA in specific reports. Not available on the net. GEM/GERA website: <a href="http://www.gemconsortium.org">http://www.gemconsortium.org</a> .	

Quality of Management Schools



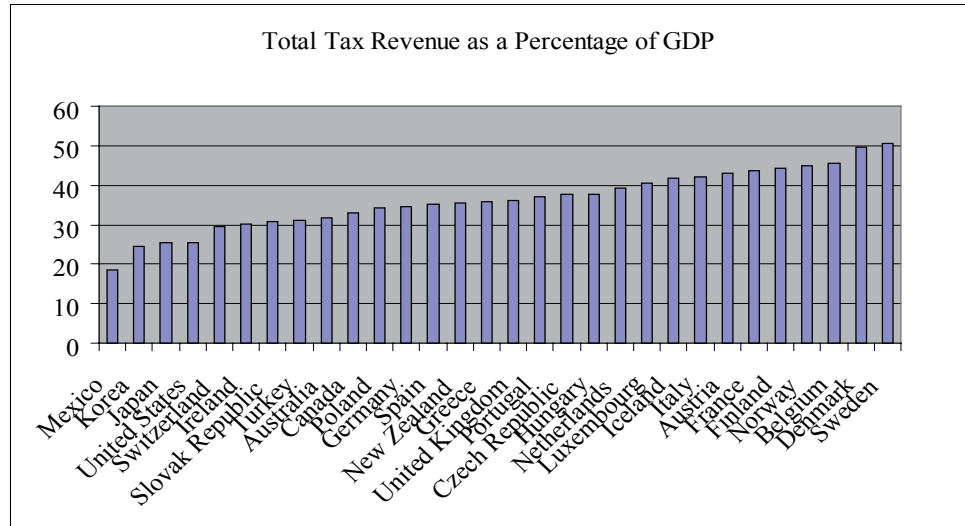
## 4.33 Total Tax Revenue as Percentage of GDP

### Definition

The indicator measures the ratio of total tax revenues to gross domestic product at market prices.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The level of total tax revenue is expected to have a <u>direct</u> influence on entrepreneurs' incentive to start and run a business, because it reflects the total tax burden they face.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives changing the tax structure will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Not fully comparable</u> because many countries with high tax-to-GDP ratios provide family benefits as cash payments rather than as tax reductions, increasing the apparent tax burden as measured by the tax-to-GDP ratio.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2004. The data will be updated annually.	A

<b>Source</b>	<p>OECD Revenue Statistics publication 1965-2004 – 2005 edition.</p> <p><a href="http://puck.sourceoecd.org/vl=1705958/cl=30/nw=1/rpsv/cgi-bin/fulltextew.pl?prpsv=/ij/oecdthemes/99980169/v2005n6/s1/p11.idx">http://puck.sourceoecd.org/vl=1705958/cl=30/nw=1/rpsv/cgi-bin/fulltextew.pl?prpsv=/ij/oecdthemes/99980169/v2005n6/s1/p11.idx</a></p>
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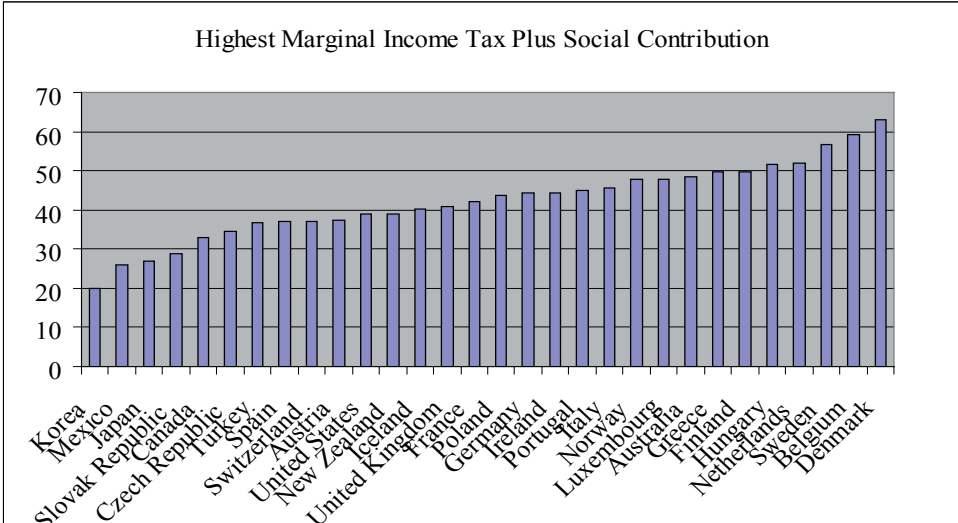
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.34 Highest Marginal Income Tax plus Social Contributions

### Definition:

The indicator measures the highest rate of taxation in percentage of the gross wage. The indicator is based on a standard case: single (without children) with high income.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The level of personal income taxes are expected to have a <u>direct</u> influence on the benefit side of the cost/benefit equation as entrepreneurs will reap a larger share of the benefit with lower tax rates.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the rate will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> Fully comparable.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2002. The data will be updated every year.	A
<b>Source</b>	<a href="http://miranda.sourceoecd.org/vl=258119/cl=28/nw=1/rpsv/cgi-bin/fulltextew.pl?prpsv=/ij/oecdthemes/99980169/v2006n1/s1/p11.idx">http://miranda.sourceoecd.org/vl=258119/cl=28/nw=1/rpsv/cgi-bin/fulltextew.pl?prpsv=/ij/oecdthemes/99980169/v2006n1/s1/p11.idx</a> OECD, Taxing Wages: 2003/2004 - 2004 Edition, p.50, Table II.6	



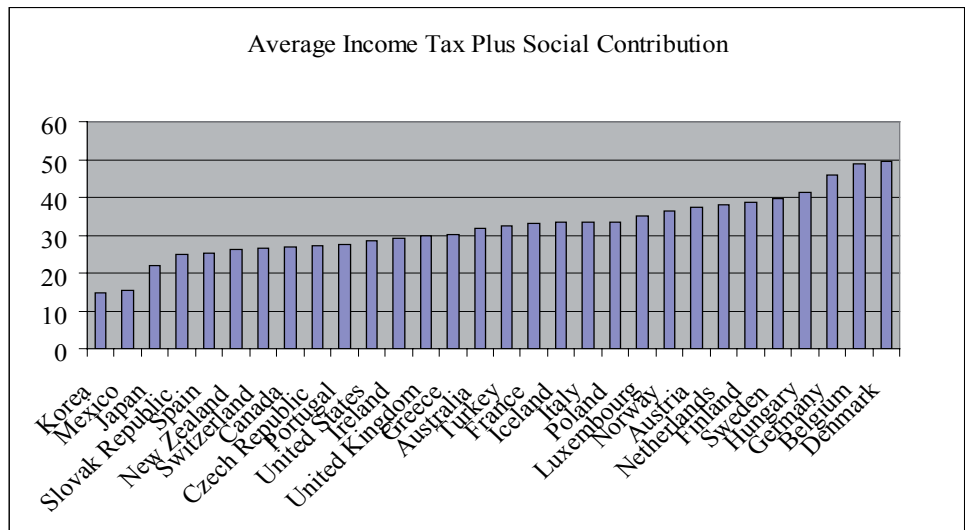
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.35 Average Income Tax Plus Social Contributions

### Definition:

The indicator measures the average rate of taxation in percentage of the gross wage. The indicator is based on a standard case: single (without children) with high income.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The level of personal income taxes are expected to have a <u>direct</u> influence on the benefit side of the cost/benefit equation as entrepreneurs will reap a larger share of the benefit in case lower tax rates.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Policy initiatives reducing the rate will have a <u>direct</u> impact on the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> Fully comparable.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2002. The data will be updated every year.	A
<b>Source</b>	<a href="http://miranda.sourceoecd.org/vl=3781702/cl=15/nw=1/rpsv/ij/oecdstats/16081102/v65n1/s1/p1">http://miranda.sourceoecd.org/vl=3781702/cl=15/nw=1/rpsv/ij/oecdstats/16081102/v65n1/s1/p1</a> OECD, Taxing wages 2004-2005, Table II.13 . Income tax plus employee contributions, by family-type and wage level (as % of gross wage earnings), 2004, p.58.	



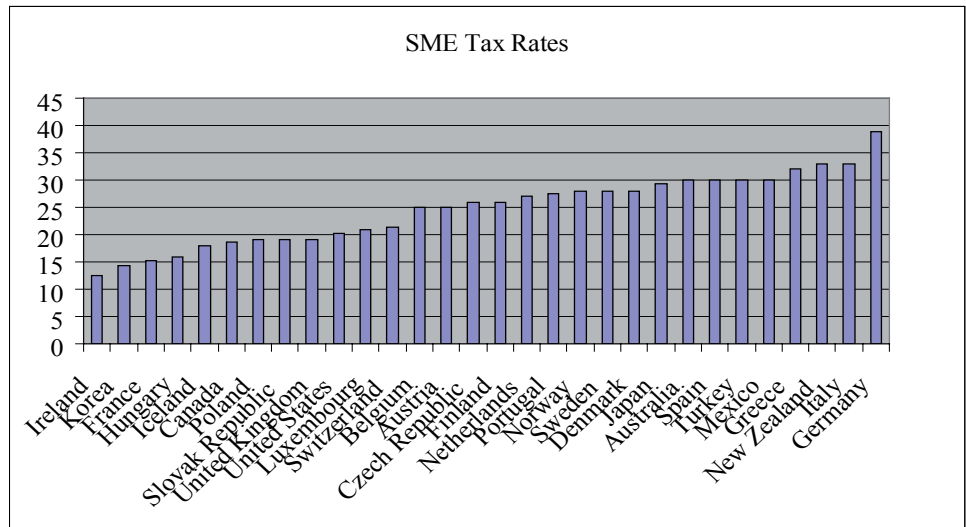
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.36 SME Tax Rates

### Definition:

The indicator measures the corporate SME tax rate.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The corporate SME tax rate is a <u>direct</u> measure of the incentives to create companies as entrepreneurs will reap a larger share of the benefit in the case of lower tax rates. The indicator measures the tax level for SMEs and not for new companies.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Political initiatives will have a <u>direct</u> influence on the tax rate for SMEs.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based, originating from OECD <u>statistics</u> .	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> .	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2000 and 2004. It is unclear if the indicator will be updated in the future.	B
<b>Source</b>	<a href="http://www.oecd.org/dataoecd/26/55/33717506.xls">http://www.oecd.org/dataoecd/26/55/33717506.xls</a> OECD tax database, table II.2 & II.1	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

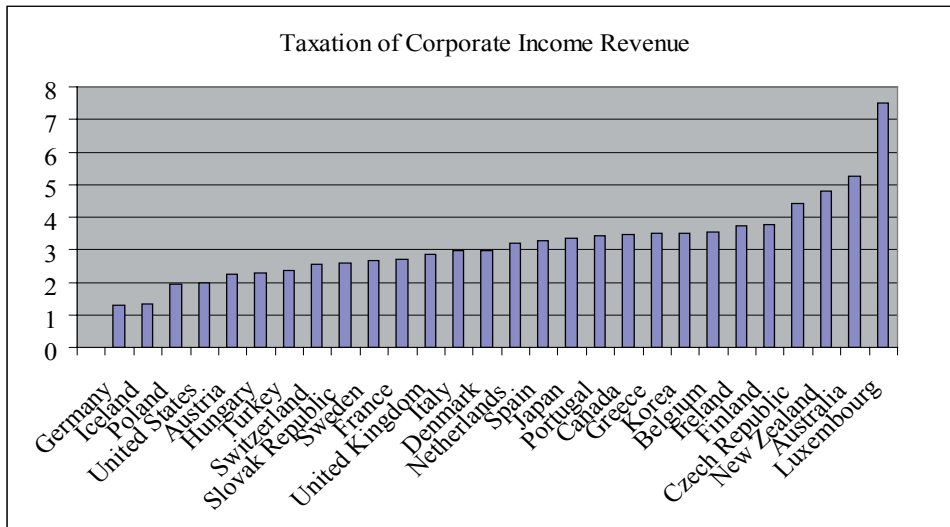


## 4.37 Taxation of Corporate Income Revenue

### Definition:

The indicator measures the revenue from corporate income tax as percentage of GDP on a three year moving average.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The amount of corporate tax revenue is a <u>direct</u> measure of one of the incentives to create high growth companies as entrepreneurs will reap a larger share of the benefit in the case of lower tax rates.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulation concerning corporate tax rates will have a <u>direct</u> influence of the size of the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based, originating from OECD statistics.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for years 1979-2002. The data will be updated every year.	A
<b>Source</b>	The data is published by the OECD: <i>Tax Revenue as Percent of GDP-3 year Moving Average</i> , Vol. 2004. Available online: <a href="http://juno.sourceoecd.org/vl=641507/cl=40/nw=1/rpsv/~4018/v55n1/s13/p1">http://juno.sourceoecd.org/vl=641507/cl=40/nw=1/rpsv/~4018/v55n1/s13/p1</a> .	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.38 Actual Cost to Close a Business

### Definition:

The indicator measures the actual cost to close a business. The cost is measured in percent of estate, based on a standard business closure (Exhibit 1).

### Exhibit 1

This indicator assumes that the business:

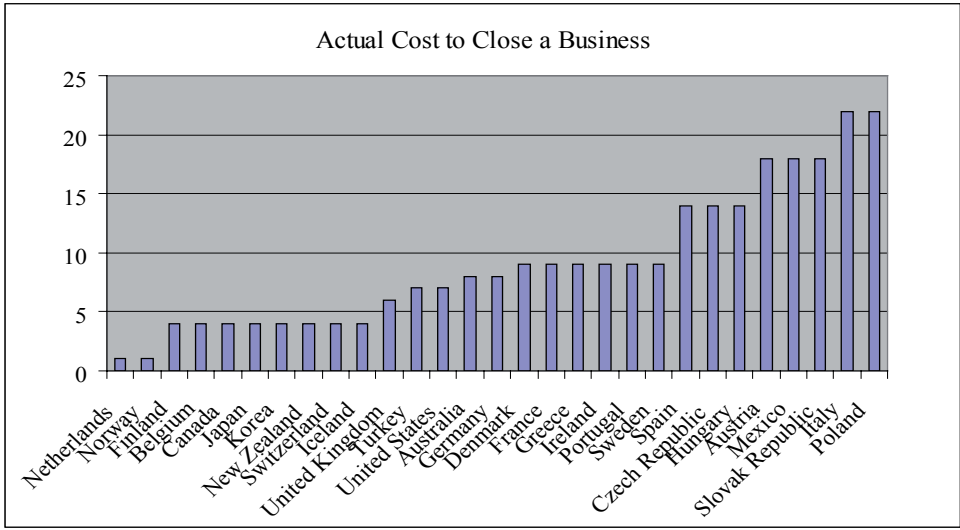
- is a limited liability company;
- operates in the country's most populous city;
- is 100 percent domestically-owned, of which 51 percent is owned by its founder, who is also the chairman of the supervisory board (aside from the founder, there is no other shareholder who has above 1 percent of shares);
- has downtown real estate as its major asset, on which it runs a hotel;
- has a professional general manager;
- has average annual revenue of 1,000 times income per capita over the last three years;
- has 201 employees, and 50 suppliers, each supplier is owed money for the last delivery;
- borrowed from a domestic bank five years ago (the loan has 10 years to full repayment) and bought real estate (the hotel building), using it as a security for the bank loan;
- has observed the payment schedule and all other conditions of the loan up to now; and
- has a mortgage with the current value of the mortgage principal being exactly equal to the market value of the hotel.

It also assumes the following with regard to business closure

- In January 2004, the business experiences liquidity problems. The company's loss in 2003 brought its net worth to a negative figure. There is no cash to pay the bank either through interest or principal in full, due on January 2, 2004. Therefore, the business defaults on its loan. Management believes that losses will be incurred in 2004 and 2005 as well.
- The bank holds a floating charge against the hotel in countries where floating charges are possible. If the law does not permit a floating charge, some contracts may nevertheless use some other provision to that effect. This provision would be specified in the lending contract.
- The business has too many creditors to renegotiate out of court. Its options are: a procedure aimed at rehabilitation or any procedure that will reorganise the business to permit continue operation; a procedure aimed at liquidation; or selling the hotel, either as a going concern or piecemeal, either enforced through a court (or a government authority like a debt collection agency) or through out of court procedure (receivership).

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The indicator measures the potential costs of closing a business based on a standard case with a company with 201 employees. The indicator can thus only be a <u>proxy</u> measure for the potential costs for an entrepreneurial company as such companies seldom have more that 200 employees.	B
	<i>b) Assessment of Policy Indicator Typology</i> Policy implication focused indicator. A <u>direct</u> measure for policy instrument. Changing formal regulation will have a direct influence of the costs of closing a company.	A

<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i>  <u>Action</u>-based indicator coming from the World Bank. The cost figures are averages of the estimates in a multiple-choice question. Respondents are required to choose among the following options: 0-2 percent, 3-5 percent, 6-10 percent, 11-15 percent, 16-20 percent, 21-25 percent, 26-50 percent, and more than 50 percent of the estate value of the bankrupt business.</p>	B
	<p><i>b) Cross-country Comparability</i>  <u>Fully comparable</u>. The same methodology is used in every country. The data are derived from survey responses by local law firms, all members of the International Bar Association. Answers were provided by a senior partner at each firm, in co-operation with one or two junior associates.</p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i>  The indicator is available for all OECD countries and for most World Bank countries.</p>	A
	<p><i>b) Availability over Time</i>  The indicator is available for 2004 and will be updated annually.</p>	A
<b>Source</b>	<p><a href="http://www.doingbusiness.org/ExploreTopics/ClosingBusiness/">http://www.doingbusiness.org/ExploreTopics/ClosingBusiness/</a>  World Bank</p>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.39 Actual Time to Close a Business

### Definition:

The indicator measures the time it takes to close a business. Time is recorded in calendar years. The indicator is based on a standard business closure (Exhibit 1).

### Exhibit 1

This indicator assumes that the business:

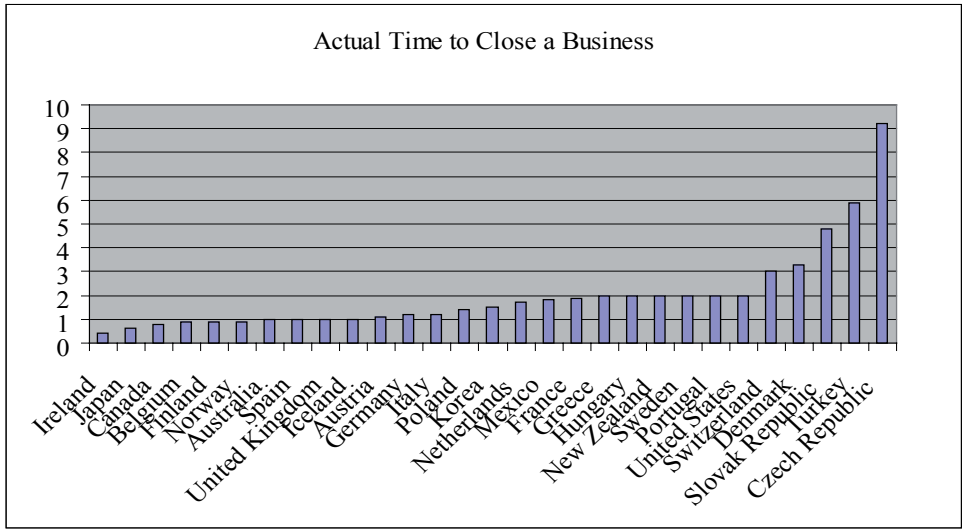
- is a limited liability company;
- operates in the country's most populous city;
- is 100 percent domestically owned, of which 51 percent is owned by its founder, who is also the chairman of the supervisory board (aside from the founder, there is no other shareholder who has above 1 percent of shares);
- has downtown real estate as its major asset, on which it runs a hotel;
- has a professional general manager;
- has average annual revenue of 1,000 times income per capita over the last three years;
- has 201 employees, and 50 suppliers, each supplier is owed money for the last delivery;
- borrowed from a domestic bank five years ago (the loan has 10 years to full repayment) and bought real estate (the hotel building), using it as a security for the bank loan;
- has observed the payment schedule and all other conditions of the loan up to now; and
- has a mortgage with the current value of the mortgage principal being exactly equal to the market value of the hotel.

It also assumes the following with regard to business closure

- In January 2004, the business experiences liquidity problems. The company's loss in 2003 brought its net worth to a negative figure. There is no cash to pay the bank either through interest or principal in full, due on January 2, 2004. Therefore, the business defaults on its loan. Management believes that losses will be incurred in 2004 and 2005 as well.
- The bank holds a floating charge against the hotel in countries where floating charges are possible. If the law does not permit a floating charge, some contracts may nevertheless use some other provision to that effect. This provision would be specified in the lending contract.
- The business has too many creditors to renegotiate out of court. Its options are: a procedure aimed at rehabilitation or any procedure that will reorganise the business to permit continue operation; a procedure aimed at liquidation; or selling the hotel, either as a going concern or piecemeal, either enforced through a court (or a government authority like a debt collection agency) or through out of court procedure (receivership).

Assessment		Grade
<b>Overall</b>		<b>B</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator measures the time of closing a business based on a standard case with a company with 201 employees. The indicator can thus only be a <u>proxy</u> measure for the potential costs for an entrepreneurial company as entrepreneurial companies seldom have more than 200 employees.	B
	<i>b) Assessment of Policy Indicator Typology</i> Policy implication focused indicator. A <u>direct</u> measure for policy instrument. Changing formal regulation will have a direct influence of the time it takes to close a company.	A

<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p><u>Action</u>-based indicator, stemming from the World Bank.</p> <p>The cost of the bankruptcy proceedings is calculated based on answers by practicing insolvency lawyers. If several respondents report different estimates, the median reported value is used.</p>	B
	<p><i>b) Cross-country Comparability</i></p> <p><u>Fully comparable</u>. The same methodology is used in every country.</p> <p>The data are derived from survey responses by local law firms, all members of the International Bar Association. Answers were provided by a senior partner at each firm, in co-operation with one or two junior associates.</p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i></p> <p>The indicator is available for all OECD countries and for most World Bank countries.</p>	A
	<p><i>b) Availability over Time</i></p> <p>The indicator is available for 2004 and will be updated annually.</p>	A
<b>Source</b>	<p>World Bank  <a href="http://www.doingbusiness.org/ExploreTopics/ClosingBusiness/">http://www.doingbusiness.org/ExploreTopics/ClosingBusiness/</a></p>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.40 Bankruptcy Recovery Rate

### **Definition:**

The recovery rate measures the efficiency of foreclosure or bankruptcy procedures. It estimates how many cents on the dollar claimants - creditors, tax authorities and employees - recover from an insolvent firm.

### **Exhibit 1**

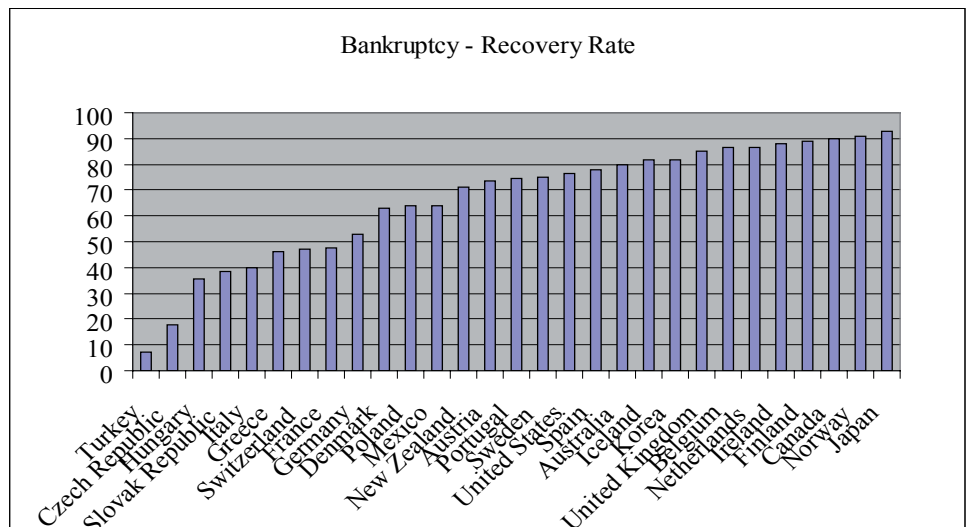
The following assumptions underlie the data:

- Assumption underlying the recovery rate:  
The calculation takes into account whether the business is kept as a going concern during the proceedings, as well as court, attorney and other related costs and the discounted value due to the time spent closing down. If the business keeps operating, no value is lost on the initial claim, set at 100 cents on the dollar. If it does not, the initial 100 cents on the dollar are reduced to 70 cents on the dollar. Then the official costs of the insolvency procedure are deducted (1 cent for each percentage of the initial value). Finally, the value lost due to the time that the money remains tied up in insolvency procedures is taken into account, including the loss of value due to depreciation of the hotel furniture. Consistent with international accounting practice, the depreciation rate for office furniture is taken to be 20%. The value of the furniture is assumed to be a quarter of the total value of assets. The recovery rate is the present value of the remaining proceeds, based on end-2004 lending rates from the International Monetary Fund's International Financial Statistics, supplemented with data from central banks.
- Assumptions underlying the Business. The business:
  - o Is a limited liability company.
  - o Operates in the country's most populous city.

- o Is 100% domestically owned, with the founder, who is also the chairman of the supervisory board, owning 51% (besides the founder, no other shareholder holds more than 1% of shares).
- o Has downtown real estate, where it runs a hotel, as its major asset.
- o Has a professional general manager.
- o Has had average annual revenue of 1,000 times income per capita over the past 3 years.
- o Has 201 employees and 50 suppliers, each of whom is owed money for the last delivery.
- o Borrowed from a domestic bank 5 years ago (the loan has 10 years to full repayment) and bought real estate (the hotel building), using it as security for the bank loan.
- o Has observed the payment schedule and all other conditions of the loan up to now.
- o Has a mortgage, with the value of the mortgage principal being exactly equal to the market value of the hotel.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevace</i> The indicator is a direct measure of investors' potential loss if a business closes. The recovery rate <u>directly</u> influences investors' incentives to invest in new business operations.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing bankruptcy legislation will have a <u>direct</u> impact on the recovery rate.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - computed using the same methodology for all countries.	A

<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A
<b>Source</b>	The World Bank. Doing Business, Explore topic: Closing Business Available online: <a href="http://www.doingbusiness.org/ExploreTopics/ClosingBusiness/">http://www.doingbusiness.org/ExploreTopics/ClosingBusiness/</a>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.41 Number of Procedures for Starting a Business

### Definition:

The Number of procedures indicator records all generic procedures that are officially required for an entrepreneur to start an industrial or commercial business. These include obtaining all necessary licenses and permits, and completing any required notifications, verifications or inscriptions with relevant authorities for a new company (Exhibit 1).

### Exhibit 1

The indicator assumes the following with regard to procedures:

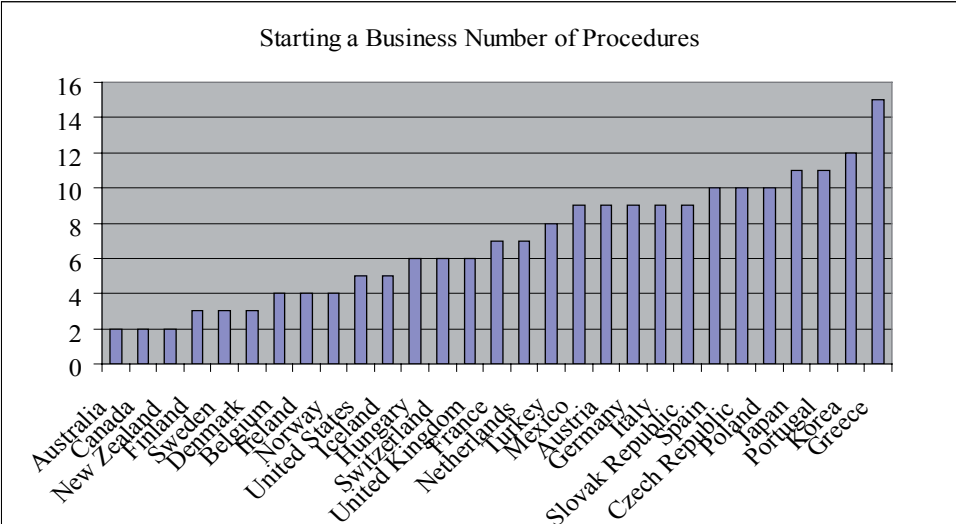
- A procedure is any interaction between the company founder and external parties (government agencies, lawyers, auditors, notaries, etc.). Interactions between company founders or company officers and employees are not considered separate procedures.
- The founders complete all procedures themselves, without middlemen, facilitators, accountants, lawyers, etc., unless law mandates the use of third parties.
- Procedures that are not required by law for starting a business are ignored. For example, obtaining exclusive rights over the company name is not counted in a country where businesses may use a number as identification.
- Shortcuts are counted only if they fulfil three criteria: they are legal and available to the general public, and are used because avoiding them causes substantial delays.
- Only procedures required of all businesses are covered. Industry-specific procedures are excluded. For example, procedures to comply with environmental regulations are included only when they apply to all businesses.
- Procedures that the company undergoes to connect to electricity, water, gas, and waste-disposal services are not included, unless they entail inspections required prior to starting operations.

The indicator assumes that the new business:

- is a limited liability company. If there is more than one type of limited liability company in the country, the most popular limited liability form among domestic firms is chosen. Information on the most popular form is obtained from incorporation lawyers or the statistical office,
- operates in the country's most populous city,
- is 100 percent domestically owned and has five owners, none of whom is a legal entity,
- has a start-up capital of 10 times income per capita at the end of 2003, paid in cash,
- performs general industrial and/or commercial activities, such as producing or selling products or services to the public. It does not perform activities related to foreign trade and does not handle products subject to a special tax regime, for example liquor or tobacco. The business does not use heavily polluting production processes,
- leases the commercial plant and offices and is not a proprietor of real estate,
- does not qualify for investment incentives or any special benefits,
- has up to 50 employees one month after the commencement of operations, all of them nationals,
- has a turnover at least 100 times income per capita, and
- has a company deed 10 pages long

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The indicator is a <u>direct</u> measure of the administrative burdens resulting from the process of becoming an entrepreneur.	A

	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulation will have a <u>direct</u> impact on the number of procedures for starting a company. Policies easing the administrative burdens include initiatives relaxing the legal requirements needed to start and run a company including the legal regulations related to hiring employees, meeting environmental standards, exporting, making annual accounts and other types of compulsory duties.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based. In every country the same methodology is used.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable.</u>	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	World Bank <a href="http://www.doingbusiness.org/ExploreTopics/StartingBusiness/">http://www.doingbusiness.org/ExploreTopics/StartingBusiness/</a>	



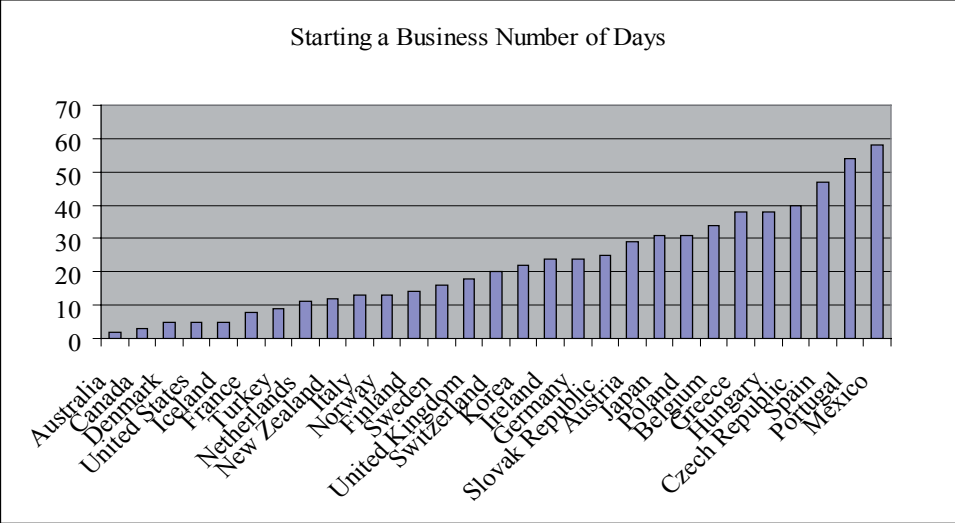
*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.42 Number of Days for Starting a Business

### Definition:

This indicator measures the average time spent during each enterprise start-up procedure. Time is recorded in calendar days based on standard assumptions about time; the company and procedure (see description of number of procedures for starting a business indicator for at description of assumptions, etc.).

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of the administrative burdens resulting from the process of becoming an entrepreneur.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulation will have a <u>direct</u> impact on the amount of time needed to fulfill each procedure in the business start-up stage.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same methodology is used in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	World Bank <a href="http://www.doingbusiness.org/ExploreTopics/StartingBusiness/">http://www.doingbusiness.org/ExploreTopics/StartingBusiness/</a>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

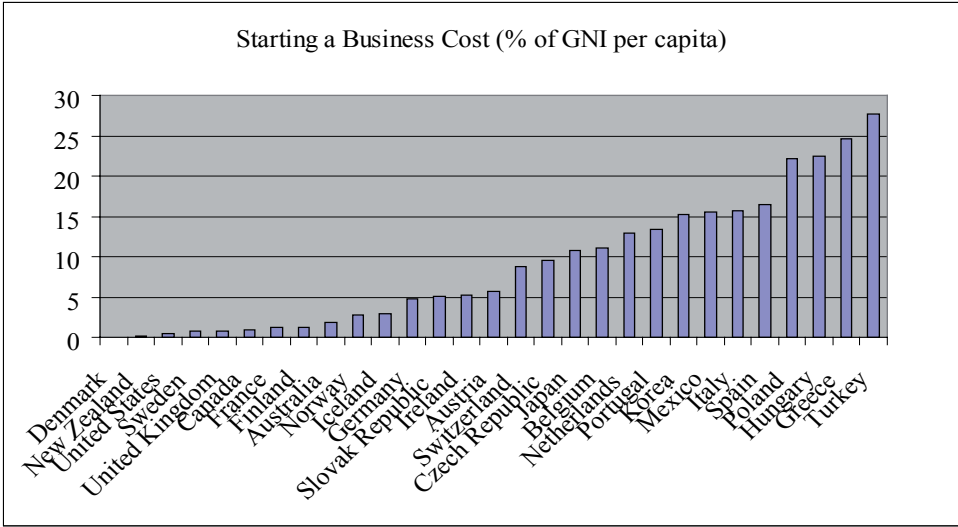
## 4.43 Costs Required to Start a Business

### Definition:

The indicator measures the official cost of each procedure in percentage of GNI per capita based on formal legislation and standard assumptions about business and procedure (see description of Number of procedures for starting a business indicator for at description of assumptions, etc.).

The indicator measures only the politically influenced costs of starting a business.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The indicator is a <u>direct</u> measure of the administrative burdens resulting from the process of becoming an entrepreneur.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulation will have a <u>direct</u> impact on the costs to fulfill each procedure for starting a company.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same methodology is used in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	World Bank <a href="http://www.doingbusiness.org/ExploreTopics/StartingBusiness/">http://www.doingbusiness.org/ExploreTopics/StartingBusiness/</a>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*



## 4.44 Regulatory and Administrative Opacity Index

### Definition:

The *regulatory and administrative opacity index* consists of two components: information on licenses and permits system, and communication and simplification of rules and procedures in at least some markets in 24 manufacturing and service sectors.

*Information on Licenses and permits systems* reflects the use of ‘one-stop shops’ and ‘silence is consent’ rules for getting information on and issuing licenses and permits. This component is based on fact-based questions (Exhibit 1).

### Exhibit 1 Low-level Indicator: Licenses and Permits System

Licenses and Permits System	Question Weights (c <sub>k</sub> )	Coding of answers	
		Yes	No
The ‘silence is consent’ rule (i.e. that licenses are issued automatically if the competent licensing office has not acted by the end of the statutory response period) is used.	1/3	0	6
There are single contact points (one-stop-shops) for getting information on notifications and licenses.	1/3	0	6
There are single contact points (one-stop shops) for issuing or accepting on notifications and licenses.	1/3	0	6

*Communication and simplification of rules and procedures* reflects a government's communication strategy and efforts to reduce and simplify the administrative burden of interacting with government.

**Exhibit 2. Low-level Indicators: Communication and Simplification of Rules and Procedures**

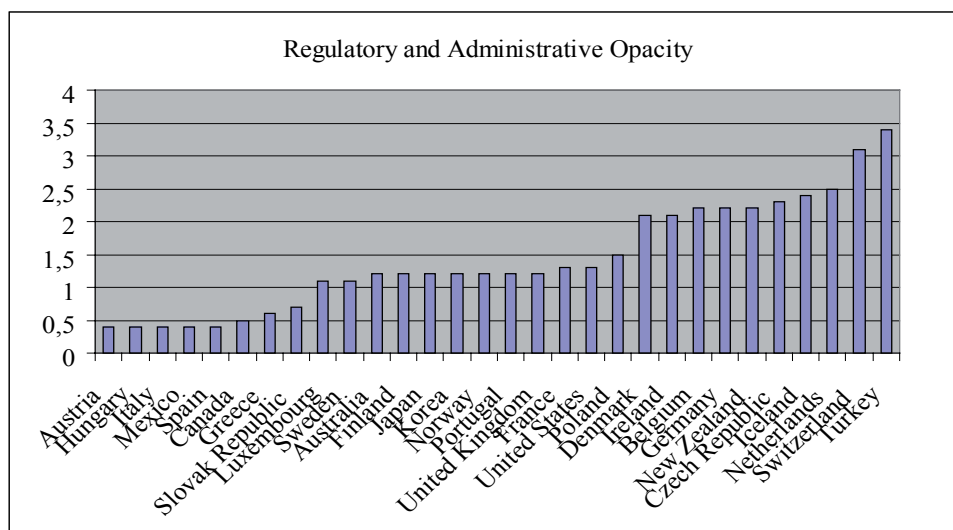
Respondents are asked if:	Question Weights ( $c_k$ )	Coding of answers		
		Yes		No
<b>Communication</b>	<b>1/2</b>			
There are systematic procedures for making regulations known and accessible to affected parties.	2/12	0		6
There is a general policy requiring plain language drafting of regulation.	1/3	0		6
There are enquiry points where affected or interested foreign parties can get information on the operation and enforcement of regulations.	3/12	0		6
Affected parties have the right to appeal against adverse enforcement decisions in individual cases.	4/12	Yes or in all cases 0	In some cases 3	No 6

Government policy imposes specific requirements in relation to transparency/freedom of information throughout public administration.	2/12	Government Wide 0	For some sectors 3	No 6
<b>Simplification</b>	$\frac{1}{2} * W_i / \text{Max}W_{98}$			
National government (all ministries and agencies) keeps a complete count of the number of permits and licenses required.	1/3	0		6
There is an explicit programme to reduce the administrative burdens imasked by government on enterprises and/or citizens.	1/3	0		6
There is a programme underway to review and reduce the number of licenses and permits required by the national government.	1/3	0		6

*Licenses and permits system and communication* is allocated a weight of 0,55 in the regulatory and administrative opacity, which is indexed against 0,45 for the indicator of *simplification of rules and procedures* (OECD, ECO/WPK(2005)6, p. 8).

Assessment	Grade
Overall	A

<b>1. Relevance</b>	<p><i>a) Assesment of Relevance</i> The lack of opacity in the administrative legislation concerning starting and managing a business is a <u>direct</u> measure of the administrative burdens resulting from starting of a business.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. A <u>direct</u> measure for a policy instrument. Changing formal regulation concerning licenses and permits system, and communication and simplification of rules and procedures will have <u>direct</u> influence of the size of the indicator.</p>	A
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i> <u>Fact-based</u> indicator. It does not focus on informal regulatory practices or enforcement practices.</p>	A
	<p><i>b) Cross-country Comparability</i> <u>Fully comparable</u>. The same methodology is used in every country.</p>	A
<b>3. Availability</b>	<p><i>a) Availability across Countries</i> The indicator is available for most of the OECD countries (30 countries).</p>	A
	<p><i>b) Availability over Time</i> The indicator is available for years 1998 and 2003. The data will not be updated annually; however some of the data may be updated at a later stage.</p>	B
<b>Source</b>	<p>The data is published in the OECD report, ECO/WKP(1999)18. Available online: <a href="http://www.oilis.oecd.org/oilis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF">http://www.oilis.oecd.org/oilis/1999doc.nsf/c16431e1b3f24c0ac12569fa005d1d99/5ef586bbe13dd52ac125684a003a8da0/\$FILE/00075836.PDF</a>.</p> <p>New data: ECO/WKP(2005)6.</p>	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.45 Registering Property

### Definition

The indicator is an average of three measurements: 1) Number of procedures legally required to register property, 2) Time spent in completing the procedures and 3) Registering property costs (Exhibit 1).

The three sub-indicators have been normalized on a scale from 1 to 100 before taking the average and thereby constructing the indicator.

### Exhibit 1

The data contains the full sequence of procedures necessary when a business purchases land and a building to transfer the property title from the seller to the buyer so that the buyer can use the property for expanding its business, as collateral in taking new loans or, if necessary, to sell to another business. Every required procedure is included, whether it is the responsibility of the seller or the buyer or must be completed by a third party on their behalf.

- The following assumptions and definitions underlie the data:
  - o Is a limited liability company.
  - o Is located in a periurban area of the country's most populous city.
  - o Is 100% domestically and privately owned.
  - o Has 50 employees, all of whom are nationals.
  - o Performs general commercial activities.
- Assumptions about the property:
  - o Has a value of 50 times income per capita.
  - o Is fully owned by another domestic limited liability company.
  - o Has no mortgages attached and has been under the same ownership for the past 10 years.
  - o Is adequately measured and filed in the cadastre, registered in the land registry and free of title disputes.

- o Is located in a periurban commercial zone, and no rezoning is required.
- o Consists of land and a building. The land area is 6,000 square feet (557.4 square meters). A 2-story warehouse of 10,000 square feet (929 square meters) is located on the land. The warehouse is 10 years old, is in good condition and complies with all safety standards, building codes and other legal requirements. The property of land and building will be transferred in its entirety.
- o Will not be subject to renovations or additional building following the purchase.
- o Has no trees, natural water sources, natural reserves or historical monuments of any kind.
- o Will not be used for special purposes, and no special permits, such as for residential use, industrial plants, waste storage or certain types of agricultural activities, are required.
- o Has no occupants (legal or illegal), and no other party holds a legal interest in it

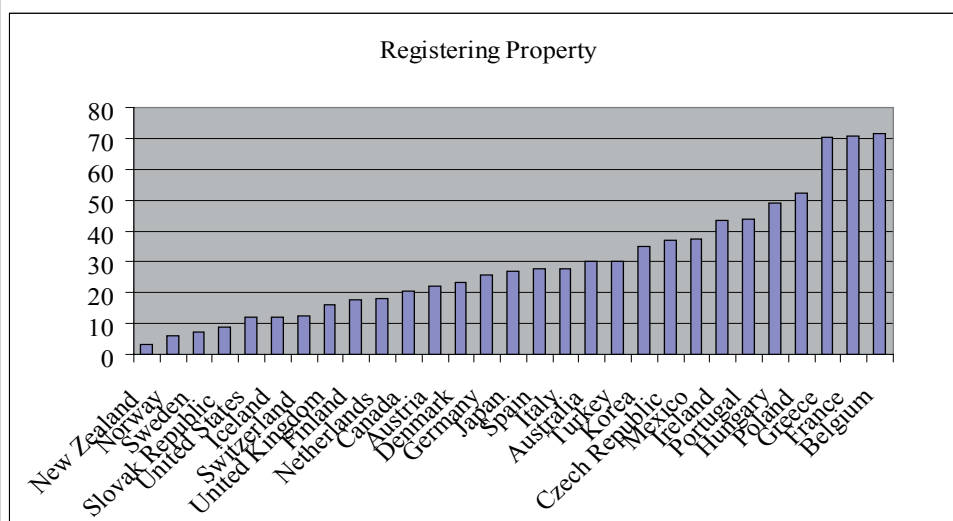
- Definition of procedures:

A procedure is defined as any interaction of the buyer or the seller, their agents (if an agent is legally or in practice required) or the property with external parties, including government agencies, inspectors, notaries and lawyers. Interactions between company officers and employees are not considered. All procedures that are legally or in practice required for registering property are recorded, even if they may be avoided in exceptional cases. It is assumed that the buyer follows the fastest legal option available and used by the general public. Although the business may use lawyers or other professionals where necessary in the registration process, it is assumed that it does not employ an outside facilitator in the registration process unless legally or in practice required to do so.

- Definition of time:**  
 Time is recorded in calendar days. The measure captures the median duration that property lawyers or registry officials indicate is necessary to complete a procedure. It is assumed that the minimum time required for each procedure is 1 day. Although procedures may take place simultaneously, they cannot start on the same day. It is assumed that the buyer does not waste time and commits to completing each remaining procedure without delay. If a procedure can be accelerated for an additional cost, the fastest legal procedure available and used by the general public is chosen. If procedures can be undertaken simultaneously, it is assumed that they are. It is assumed that the parties involved are aware of all regulations and their sequence from the beginning. Time spent on gathering information is not considered.
- Definition of Cost:**  
 Cost is recorded as a percentage of the property value, assumed to be equivalent to 50 times income per capita. Only official costs required by law are recorded, including fees, transfer taxes, stamp duties and any other payment to the property registry, notaries, public agencies or lawyers. Other taxes, such as capital gains tax or value added tax, are excluded from the cost measure. If cost estimates differ among sources, the median reported value is used.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i>            The indicator, Registering Property, is a <u>direct</u> measure of administrative burdens which can arise during a business operation.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i>            Policy focused indicator. Changing formal regulations will have a <u>direct</u> impact on administrative burdens arising from an entrepreneur registering property.</p>	A

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A
<b>Source</b>	The World Bank. Doing Business, Explore topic: Registering Property Available online: <a href="http://www.doingbusiness.org/ExploreTopics/RegisteringProperty/">http://www.doingbusiness.org/ExploreTopics/RegisteringProperty/</a>	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.46 Procedures, Time and Costs to Build a Warehouse

### Definition:

The indicator is an average of three measurements: 1) Average time spent during each procedure, 2) Official cost of each procedure and 3) Number of procedures to build a warehouse (Exhibit 1).

The three sub-indicators have been normalized on a scale from 1 to 100 before taking the average and thereby constructing the indicator.

### Exhibit 1

The following assumptions and definitions underlie the data:

- Assumptions about the construction company:
  - o Is a limited liability company.
  - o Operates in the country's most populous city.
  - o Is 100% domestically owned and has 5 owners, none of whom is a legal entity.
  - o Carries out construction projects, such as building a warehouse.
  - o Has up to 20 builders and other employees, all of them nationals with the technical expertise and professional experience necessary to develop architectural and technical plans for building a warehouse.
- Assumptions about the warehouse project. The Warehouse:
  - o Has 2 stories and approximately 14,000 square feet (1,300.6 square meters). Each floor is 9 feet, 10 inches (3 meters) high.
  - o Is located in a periurban area of the country's most populous city.
  - o Is located on a land plot of 10,000 square feet (929 square meters), which is 100% owned by BuildCo and is accurately registered in the cadastre and land registry.
  - o Is a new construction (there was no previous construction on the land).
  - o Has a complete architectural and technical plan.

- o Will be connected to electricity, water, sewerage and one land phone line. The connection to each utility network will be 32 feet, 10 inches (10 meters) long.
- o Will require a 10-ampere power connection and 140 kilowatts of electricity.
- o Will be used for storing books.

- Definition of procedures:

A procedure is any interaction of the company's employees or managers with external parties, including government agencies, public inspectors, notaries, the land registry and cadastre and technical experts apart from architects and engineers. Interactions between company employees, such as development of the warehouse plans and inspections conducted by employees, are not counted as procedures. Procedures that the company undergoes to connect to electricity, water, sewerage and phone services are included. All procedures that are legally or in practice required for building a warehouse are counted, even if they may be avoided in exceptional cases.

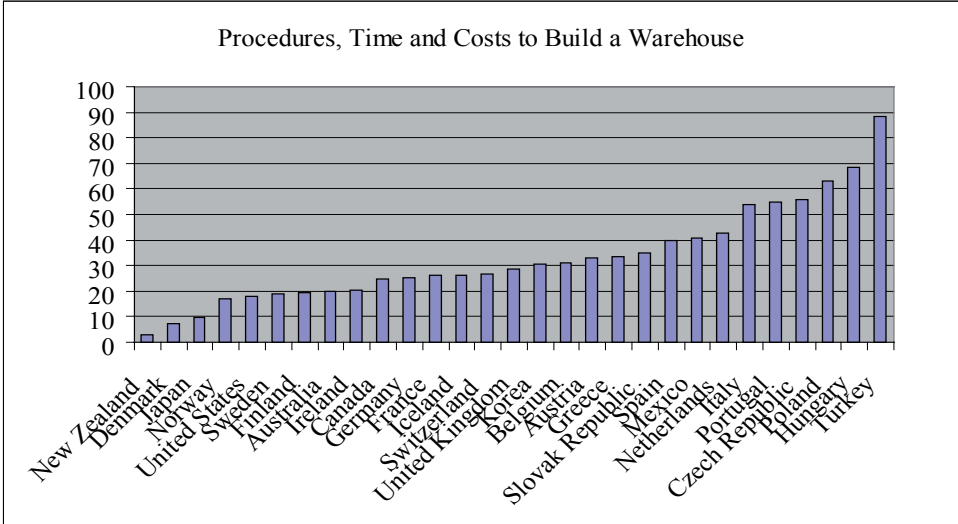
- Definition of time:

Time is recorded in calendar days. The measure captures the median duration that local experts indicate is necessary to complete a procedure. It is assumed that the minimum time required for each procedure is 1 day. If a procedure can be accelerated legally for an additional cost, the fastest procedure is chosen. It is assumed that BuildCo does not waste time and commits to completing each remaining procedure without delay. The time that BuildCo spends on gathering information is ignored. It is assumed that BuildCo is aware of all building requirements and their sequence from the beginning.

- Definition of cost:  
Cost is recorded as a percentage of the country's income per capita. Only official costs are recorded. The building code, specific regulations and fee schedules and information from local experts are used as sources for costs. If several local partners provide different estimates, the median reported value is used. All the fees associated with completing the procedures to legally build a warehouse, including utility hook-up, are included.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> Procedures, time and cost spent when building a warehouse is a <u>direct</u> measure of administrative burdens which can arise during a business operation.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulations will have a <u>direct</u> impact on administrative burdens arising when building a warehouse.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A

<b>Source</b>	<p>The World Bank. Doing Business, Explore topic: Dealing with licenses.</p> <p>The three indicators used to construct the indicator are available online:</p> <p><a href="http://www.doingbusiness.org/ExploreTopics/DealingWithLicenses/">http://www.doingbusiness.org/ExploreTopics/DealingWithLicenses/</a></p>
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.47 Enforcing Contracts

### Definition:

The indicator is an average of three measurements: 1) Enforcing contracts number of procedures, 2) Enforcing contracts – time and 3) Enforcing contracts cost (% of debts) (Exhibit 1).

The three sub-indicators have been normalized on a scale from 1 to 100 before taking the average and thereby constructing the indicator.

### Exhibit 1

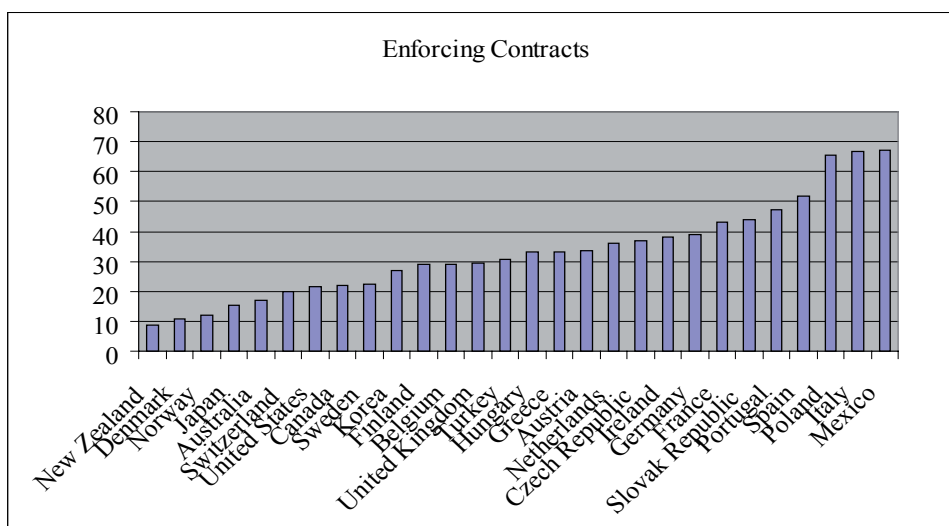
The following assumptions are made about the case:

- The value of the claim equals 200 percent of the country's income per capita.
- The plaintiff has fully complied with the contract (that is, the plaintiff is 100% right).
- The case represents a lawful transaction between businesses located in the country's most populous city.
- The plaintiff files a lawsuit to enforce the contract.
- A court in the most populous city decides the dispute.
- The defendant attempts to delay service of process but it is finally accomplished.
- The defendant opposes the complaint (default judgment is not an option) on the grounds that the delivered goods were not of adequate quality.
- The plaintiff introduces documentary evidence and calls one witness. The defendant calls one witness. Neither party presents objections.
- The judgment is in favor of the plaintiff and the defendant does not appeal the judgment.
- The plaintiff takes all required steps for prompt enforcement of the judgment. The debt is successfully collected through sale of the defendant's movable assets (such as a vehicle) at a public auction.

- **Definition of Procedures:**  
A procedure is defined as any interaction mandated by law or court regulation between the parties, or between them and the judge (or administrator) or court officer. This includes steps to file the case, steps for trial and judgment and steps necessary to enforce the judgment.
- **Definition of time:**  
Time is recorded in calendar days, counted from the moment the plaintiff files the lawsuit in court until payment. This includes both the days when actions take place and the waiting periods between actions. The respondents make separate estimates of the average duration of different stages of dispute resolution: the completion of service of process (time to file the case), the issuance of judgment (time for the trial) and the moment of payment (time for enforcement).
- **Definition of cost:**  
Cost is recorded as a percentage of the claim, assumed to be equivalent to 200% of income per capita. Only official costs required by law are recorded, including court costs and average attorney fees where the use of attorneys is mandatory or common.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> Enforcement of contracts is a <u>direct</u> measure of administrative burdens which can arise during a business operation.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulations will have a <u>direct</u> impact on administrative burdens arising when enforcing a contract.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A

	<i>b) Cross-country Comparability</i> Fully comparable - computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	A
<b>Source</b>	The World Bank. Doing Business, Explore topic: Enforcing Contracts Available online: <a href="http://www.doingbusiness.org/ExploreTopics/EnforcingContracts/">http://www.doingbusiness.org/ExploreTopics/EnforcingContracts/</a>	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.48 Time it takes to Prepare, File and Pay the Corporate Income Tax, the VAT and Social Security Contributions

### Definition:

Time it takes to prepare, file and pay (or withhold) the corporate income tax, the value added tax and social security contributions (in hours per year).

### Exhibit 1

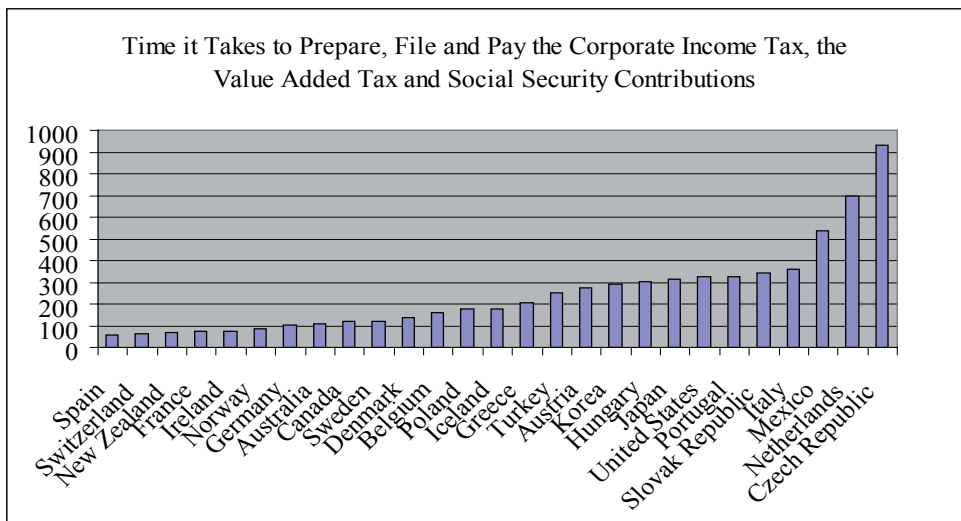
The following assumptions and definitions underlie the data:

- Assumptions about the business. The business:
  - o Is a limited liability, taxable company. If there is more than one type of limited liability company in the country, the limited liability form most popular among domestic firms is chosen. Incorporation lawyers or the statistical office report the most popular form.
  - o Started operations on January 1, 2004. At that time the company purchased all the assets shown in its balance sheet and hired all its workers.
  - o Operates in the country's most populous city.
  - o Is 100% domestically owned and has 5 owners, all of whom are natural persons.
  - o Has a start-up capital of 102 times income per capita at the end of 2004.
  - o Performs general industrial or commercial activities. Specifically, it produces ceramic flowerpots and sells them at retail. It does not participate in foreign trade (no import or export) and does not handle products subject to a special tax regime, for example, liquor or tobacco.
  - o Owns 2 plots of land, 1 building, machinery, office equipment, computers and 1 truck and leases another truck.
  - o Does not qualify for investment incentives or any special benefits apart from those related to the age or size of the company.

- o Has 60 employees - 4 managers, 8 assistants and 48 workers. All are nationals, and 1 of the managers is also an owner.
- o Has a turnover of 1,050 times income per capita.
- o Makes a loss in the first year of operation.
- o Has the same gross margin (pre-tax) across all economies.
- o Distributes 50% of its profits as dividends to the owners at the end of the second year.
- o Sells one of its plots of land at a profit during the second year.
- o Is subject to a series of detailed assumptions on expenses and transactions to further standardize the case.
- Definition of time:  
Time is recorded in hours per year. The indicator measures the time to prepare, file and pay (or withhold) three major types of taxes: the corporate income tax, value added or sales tax and labor taxes, including payroll taxes and social security contributions. Preparation time includes the time to collect all information necessary to compute the tax payable. If separate accounting books must be kept for tax purposes—or separate calculations must be made for tax purposes—the time associated with these processes is included. Filing time includes the time to complete all necessary tax forms and make all necessary calculations. Payment time is the hours needed to make the payment online or at the tax office. When taxes are paid in person, the time includes delays while waiting.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The time spent preparing, filing and paying taxes is a <u>direct</u> measure of administrative burdens which arise during a business operation.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing formal regulations will have a <u>direct</u> impact on administrative burdens when paying taxes.	A

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The data is <u>fact</u> -based. Data originating from the World Bank.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> - computed using the same methodology for all countries.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2005 and will be updated annually.	B
<b>Source</b>	The World Bank. Doing Business, Explore topic: Paying Taxes Available online: <a href="http://www.doingbusiness.org/ExploreTopics/PayingTaxes/">http://www.doingbusiness.org/ExploreTopics/PayingTaxes/</a>	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.49 Difficulty of Hiring

### Definition:

The index measures whether laws or other regulations have implications for the difficulties of hiring a standard worker in a standard company (Exhibit 1).

Based on fact-based (yes/no) questions but remodelled into a 0-100 index.

### Exhibit 1

The index measures:

- whether term contracts can only be used for temporary tasks. *(A country is assigned a score of 1 if term contracts can only be used for temporary tasks and a score of 0 if term contracts can be used for any task);*
- the maximum duration of term contracts *(A score of 1 is assigned if the duration of term contracts is 3 years or less; 0.5 if the duration is between 3 and 5 years; and 0 if term contracts can last more than 5 years);*
- the ratio of the mandated minimum wage (or apprentice wage, if available) to the average value-added per working population. *(A score of 1 is assigned if the ratio of minimum wage to average value added per worker ratio is higher than 0.75; 0.67 for ratios between 0.50 and 0.75; 0.33 for ratios between 0.25 and 0.50; and a score of 0 if the ratio is below 0.25).*

The score is based on regulatory implications on a standard worker and company. Regulative implications may vary among workers and companies. The indicator is based on several assumptions about worker and company:

The worker

- is a non-executive, full-time male employee who has worked in the same company for 20 years;
- earns a salary plus benefits equal to the country's average wage during the entire period of his employment;

- has a non working wife and two children and the family resides in the country's most populous city;
- is a lawful citizen who belongs to the same race and religion as the majority of the country's population;
- is not a member of the labor union, unless membership is mandatory.

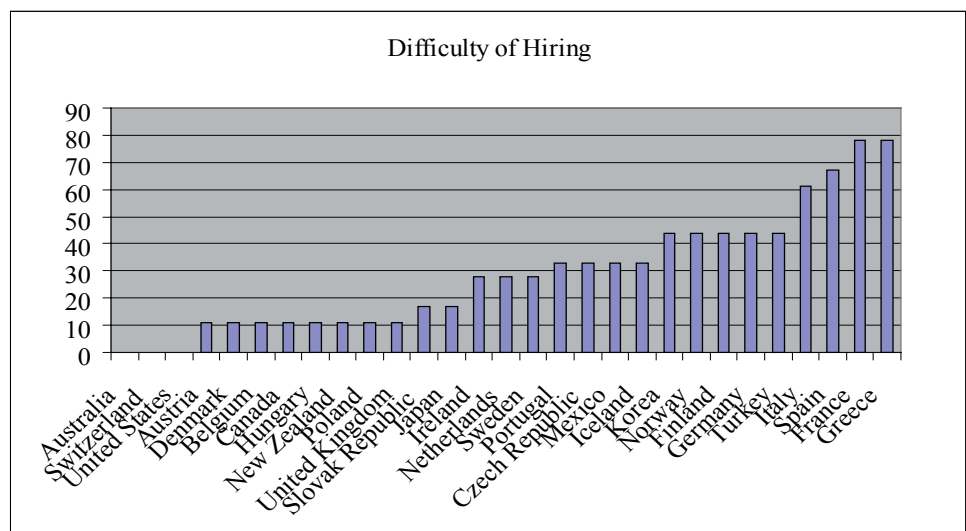
The business:

- is a limited liability company that operates in the country's most populous city;
- is a 100 percent domestically owned that operates in the manufacturing sector;witness. Neither party presents objections.
- has 201 employees, and abides by every law and regulation, but does not grant workers more benefits than legally mandated.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The indicator is a <u>direct</u> measure of some of the potential administrative burdens resulting from one becoming a high growth entrepreneur, namely the burdens connected to hiring employees.	A

	<p><i>b) Assessment of Policy Indicator Typology</i>  Changing formal labor market regulation will have a direct impact of the size of the indicator.</p> <p>Note that in some countries some of the regulations are based on agreements between the parties on the labour market, who have no tradition for political interference.</p> <p>The indicator has been remodelled into index 0 – 100, which makes the indicator an <u>indirect</u> measure (it is <i>a priori</i> unclear what is needed to change a country from 70 to 35).</p>	A
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i>  The indicator is <u>fact</u>-based. It measures formal regulation for an standard company and worker. In every country the same methodology is used.</p> <p>The score is based on regulatory implications on a standard worker and company. Regulative implications may vary among workers and companies. The indicator will not catch specific difficulties of hiring differences related to different sectors or in special cases.</p>	A
	<p><i>b) Cross-country Comparability</i>  <u>Comparable to some extent</u>. To be fully comparable the assumptions about worker and company has to encompass the majority of workers and companies in the countries compared. The typical size of companies varies substantially between compared countries.</p>	B

<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> Data available for 2004 and will be updated annually.	A
<b>Source</b>	<a href="http://www.doingbusiness.org/ExploreTopics/HiringFiringWorkers/Default.aspx?direction=asc&amp;sort=1">http://www.doingbusiness.org/ExploreTopics/HiringFiringWorkers/Default.aspx?direction=asc&amp;sort=1</a> World Bank	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.50 Difficulty of Firing

### **Definition:**

The index measures whether laws or other regulations have implications for the difficulties of firing a standard worker in a standard company (Exhibit 1).

Based on fact based (yes/no) questions but remodelled to 0-100 index.

Exhibit 1

### **Exhibit 1**

The index measures:

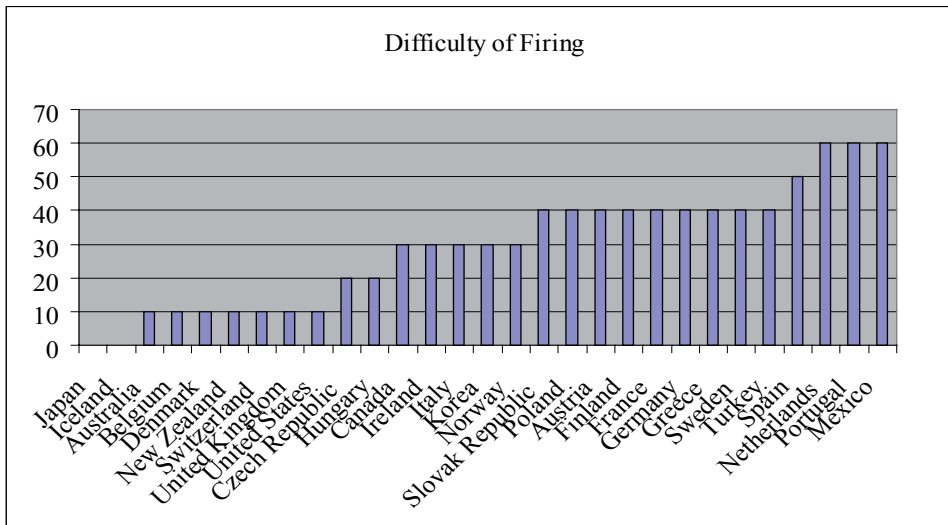
- (i) whether redundancy is not grounds for dismissal;
- (ii) whether the employer needs to notify the labor union or the labor ministry for firing one redundant worker;
- (iii) whether the employer needs to notify the labor union or the labor ministry for group dismissals;
- (iv) whether the employer needs approval from the labor union or the labor ministry for firing one redundant worker;
- (v) whether the employer needs approval from the labor union or the labor ministry for group dismissals;
- (vi) whether the law mandates training or replacement prior to dismissal;
- (vii) whether priority rules apply for dismissals; and
- (viii) whether priority rules apply for re-employment

If the answer to any question is yes, a score of 1 is assigned; otherwise a score of 0 is given. Questions (i) and (iv) have double-weight in the construction of the final index.

The score is based on regulatory implications on a standard worker and company.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<p><i>a) Assessment of Relevance</i></p> <p>The indicator is a <u>direct</u> measure of some of the potential administrative burdens resulting from being an entrepreneur, namely the burdens connected to firing employees.</p>	A
	<p><i>b) Assessment of Policy Indicator Typology</i></p> <p>Changing formal labor market regulation will have a <u>direct</u> impact of the size of the indicator.</p> <p>Note that in some countries some of the regulations are based on agreements between the parties on the labour market, with no tradition for political interference.</p> <p>The Indicator has been remodeled into index 0-100, which makes the indicator an indirect measure (it is <i>a priori</i> unclear what is needed to change a country from 70 to 35).</p>	A
<b>2. Accuracy</b>	<p><i>a) Data Collection Method</i></p> <p>The indicator is <u>fact</u>-based. Measures formal regulation for an ideal-type company and worker. The same methodology is used in every country.</p> <p>The score is based on regulatory implications on a standard worker and company. Regulative implications may vary among workers and companies. The indicator will not catch hiring differences in specific sectors or in special cases.</p>	A

	<i>b) Cross-country Comparability</i> <u>Comparable to some extent.</u> In order to be fully comparable, the assumptions about the worker and company have to encompass the majority of workers and companies in the countries compared. The typical size of companies varies substantially between compared countries.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	<a href="http://www.doingbusiness.org/ExploreTopics/HiringFiringWorkers/Default.aspx?direction=asc&amp;sort=1">http://www.doingbusiness.org/ExploreTopics/HiringFiringWorkers/Default.aspx?direction=asc&amp;sort=1</a> World Bank	



Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator

## 4.51 The Rigidity of Hours

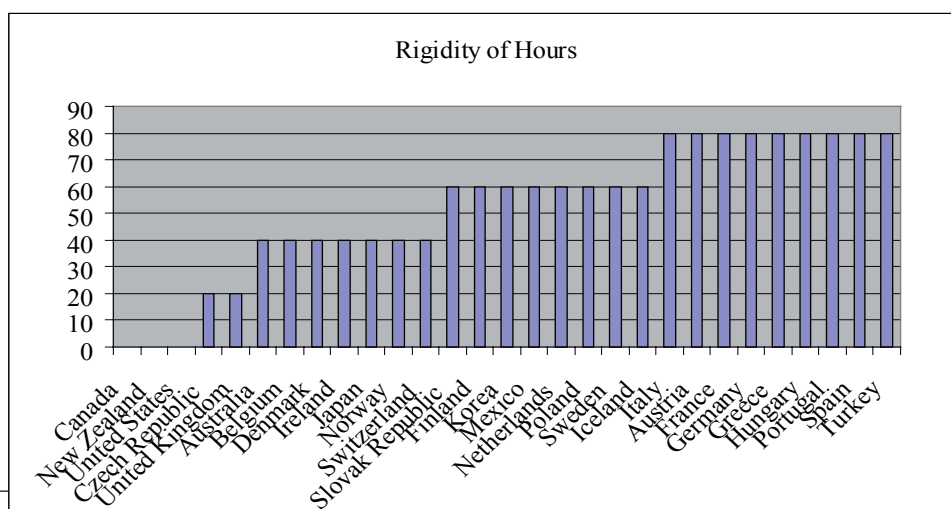
### Definition:

The indicator measures the rigidity of working overtime.

The indicator is an index with five components: (i) whether night work is restricted; (ii) whether weekend work is allowed; (iii) whether the work week consists of five and a half days or more; (iv) whether the workday can extend to 12 hours or more (including overtime); and (v) whether the annual paid vacation days are 21 days or less. If the answer is no on any of these questions, the country is assigned a score of 1, otherwise a score of 0 is assigned. The questions are based on standard assumptions on worker and company (See the indicator above “Difficulty of Hiring” for a description of the assumptions).

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure of some of the potential administrative burdens resulting from becoming an entrepreneur, namely the rigidity connected to having employees working more that standard.	A
	<i>b) Assessment of Policy Indicator Typology</i> Changing formal regulation will have a <u>direct</u> impact on the size of the indicator. Note that in some countries some of the regulations are based on agreements between the parties on the labour market with no tradition for political interference Indicator has been remodelled into index 0 – 100, which makes the indicator an indirect measure (it is a priori unclear what is needed to change a country from 70 to 35).	A

<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>fact</u> -based. Measures formal regulation for an ideal-type company and worker. In every country the same methodology is used. The score is based on regulatory implications on a standard worker and company. Regulative implications may vary among workers and companies. The indicator will not catch difficulty of hiring differences in specific sectors or in special cases.	A
	<i>b) Cross-country Comparability</i> <u>Comparable to some extent</u> . To be fully comparable the assumptions about worker and company have to encompass the majority of workers and companies in the countries compared. The typical size of companies varies substantially between compared countries.	B
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for all OECD countries and for most World Bank countries.	A
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	<a href="http://www.doingbusiness.org/ExploreTopics/HiringFiringWorkers/Default.aspx?direction=asc&amp;sort=1">http://www.doingbusiness.org/ExploreTopics/HiringFiringWorkers/Default.aspx?direction=asc&amp;sort=1</a>	



## 4.52 Number of Administrative Procedures when Recruiting First Employee

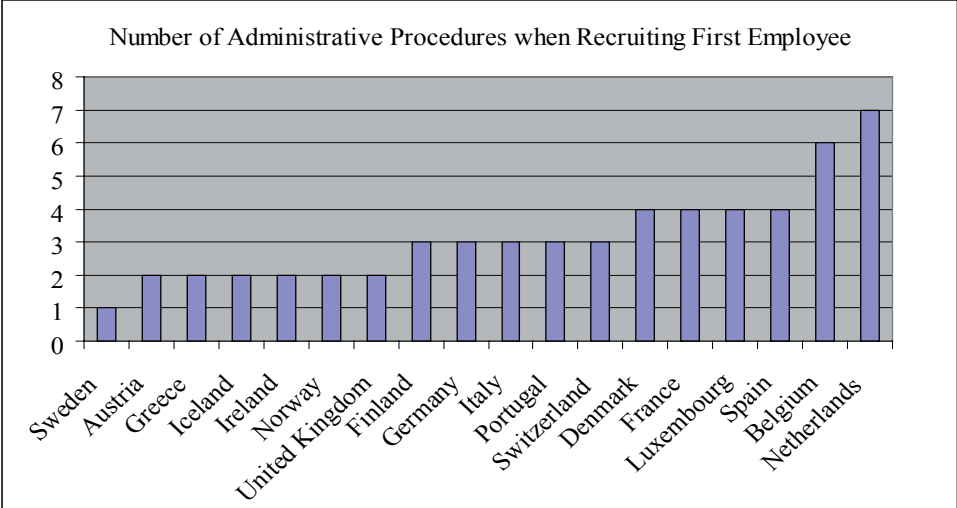
### Definition:

The indicator measures all obligatory contacts that employers have to make with administrative offices in the recruitment process of the first employee.

Procedures relevant to specific groups of enterprises are omitted.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure for the administrative burdens resulting from hiring of the first employee.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing the legislation for hiring the first employee will have <u>direct</u> influence of the size of the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator. The same methodology is used In every country.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> although procedures relevant to specific groups of enterprises are omitted.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the EU countries, but not for the non-EU OECD countries.	B
	<i>b) Availability over Time</i> The indicator is available for 2001. The data will not be updated annually.	B

<b>Source</b>	<p>European Commission (2002): “Hiring Employees: Administrative Burdens on SMEs in Europe”, footnote 23. Available online: <a href="http://europa.eu.int/comm/enterprise/enterprise_policy/better_environment/doc/enterprise_policy_scoreboard_2002_en.pdf">http://europa.eu.int/comm/enterprise/enterprise_policy/better_environment/doc/enterprise_policy_scoreboard_2002_en.pdf</a>.</p>
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.53 Number of Administrative Procedures when Recruiting Additional Employees

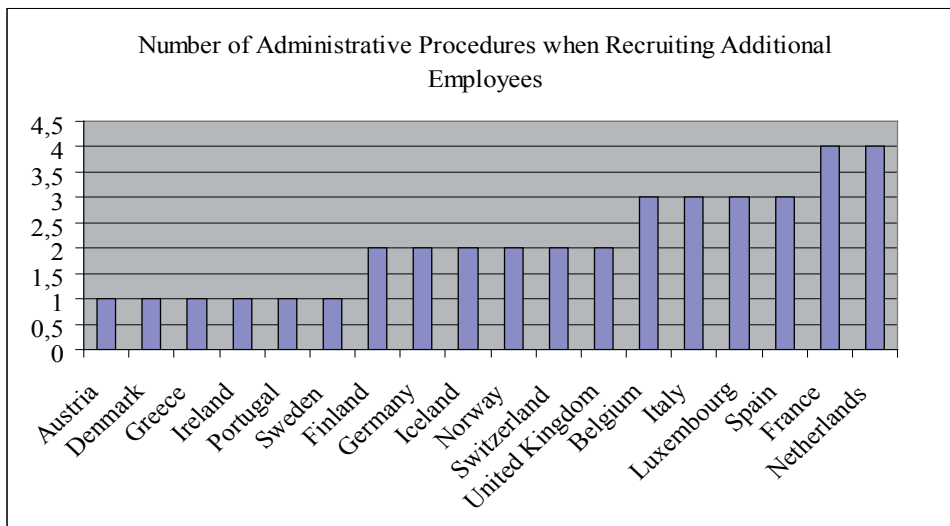
### Definition:

The indicator measures all obligatory contacts that employers have to make with administrative offices in the recruitment process.

Procedures relevant to specific groups of enterprises are omitted.

Assessment		Grade
<b>Overall</b>		<b>A</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The indicator is a <u>direct</u> measure for the administrative burdens resulting from hiring of additional employees.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy focused indicator. Changing the legislation for hiring additional employees will have <u>direct</u> influence of the size of the indicator.	A
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> <u>Fact</u> -based indicator. The same methodology is used In every country.	A
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> although procedures relevant to specific groups of enterprises are omitted.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for most of the EU countries, but not for the non-EU OECD countries..	B
	<i>b) Availability over Time</i> The indicator is available for 2001. The data will not be updated annually.	B

<b>Source</b>	European Commission (2002): “Hiring Employees: Administrative Burdens on SMEs in Europe”, footnote 23. Available online: <a href="http://europa.eu.int/comm/enterprise/enterprise_policy/better_environment/doc/enterprise_policy_scoreboard_2002_en.pdf">http://europa.eu.int/comm/enterprise/enterprise_policy/better_environment/doc/enterprise_policy_scoreboard_2002_en.pdf</a> .
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*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

## 4.54 Cultural and Social Norms

### Definition:

The indicator measures entrepreneurial experts' perception of the cultural and social norms related to entrepreneurship.

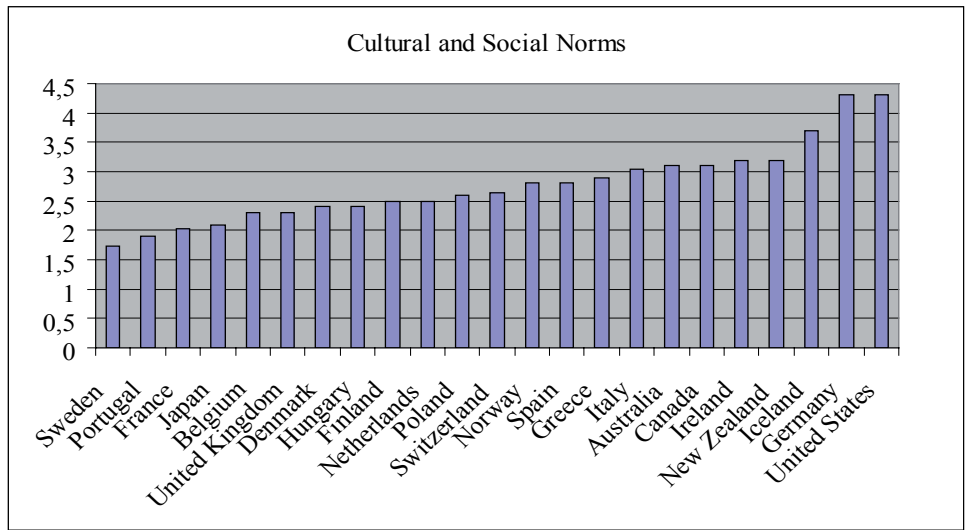
The indicator is based on five questions that the experts are asked to answer. The ranking of the questions go from 1 (strongly disagree) to 5 (strongly agree). The indicator is a simple average of the questions (Exhibit 1).

### Exhibit 1

- The national culture is highly supportive of individual success achieved through own personal efforts.
- The national culture emphasizes self-sufficiency, autonomy, and personal initiative.
- The national culture encourages entrepreneurial risk-taking.
- The national culture encourages creativity and innovativeness.
- The national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The cultural and social norms related to entrepreneurship are a <u>direct</u> measure of the degree in which national culture and norms support entrepreneurship and, consequently, the starting up of new business.	A

	<i>b) Assessment of Policy Indicator Typology</i> Political initiatives will have an indirect influence of the national culture and the national norms towards entrepreneurship. Furthermore, the indicator is opinion-based. Policy measures can only have an <u>indirect</u> impact on the opinions of entrepreneurial experts.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based. The information is provided by entrepreneurial experts' answers to a list of questions in an expert survey, which is part of the GEM/GERA project.	C
	<i>b) Cross-country Comparability</i> Fully comparable. The same question was asked in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 1997-2004. Some divergence exists in the exact stating of the questions through the years. The indicator may be updated in the future.	A
<b>Source</b>	The indicator is published by GEM/GERA in specific reports. Not available on the net. <a href="http://www.gemconsortium.org">http://www.gemconsortium.org</a> .	



## 4.55 Entrepreneurial Motivation

### Definition:

The indicator measures entrepreneurial experts' perception of entrepreneurial motivation.

The indicator is based on four questions that the experts are asked to answer. The ranking of the questions go from 1 (strongly disagree) to 5 (strongly agree). The indicator is a simple average of the questions (Exhibit 1).

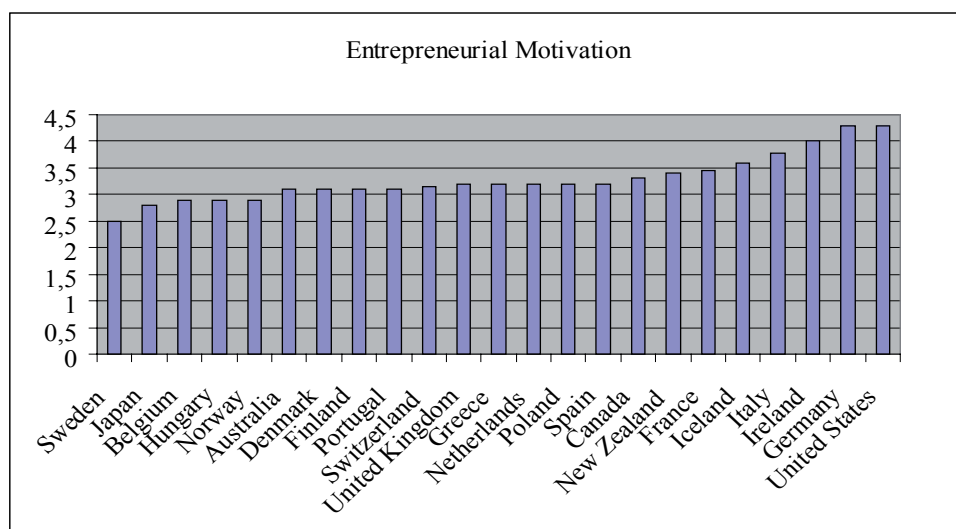
### Exhibit 1

Experts were asked if:

- the creation of new ventures is considered an appropriate way to become rich.
- people consider becoming an entrepreneur as a desirable career choice.
- successful entrepreneurs have a high level of status and respect.
- is a lawful citizen who belongs to the same race and religion as the majority of the country's population;
- you will often see stories in the public media about successful entrepreneurs, etc.

Assessment		Grade
Overall		C
1. Relevance	<i>a) Assesment of Relevance</i> The indicator is a <u>direct</u> measure of the degree in which the national culture and norms supports entrepreneurship and consequently the starting up of new business.	A

	<i>b) Assessment of Policy Indicator Typology</i> Political initiatives will have an indirect influence of the national motivation to become entrepreneur. Furthermore, the indicator is opinion-based. Policy measures can only have an <u>indirect</u> impact on the opinions of entrepreneurial experts.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based. The information is provided by entrepreneurial experts' answers to a list of questions in an expert survey, which is part of the GEM/GERA project.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same question was asked in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the OECD countries.	A
	<i>b) Availability over Time</i> The indicator is available for 1997-2004. Some divergence exists in the exact stating of the questions through the years. The indicator may be updated in the future.	A
<b>Source</b>	The indicator is published by GEM/GERA in specific reports. Not available on the net. <a href="http://www.gemconsortium.org">http://www.gemconsortium.org</a> .	

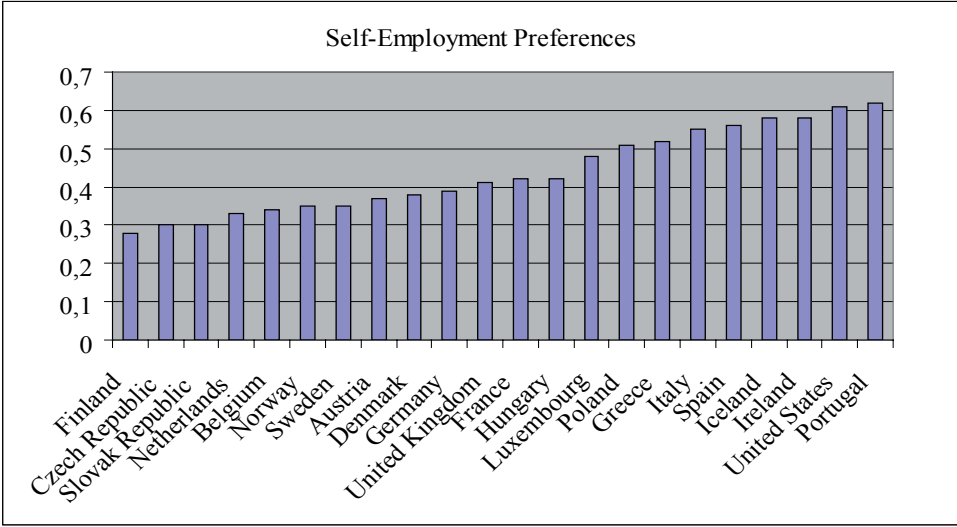


## 4.56 Self-employment Preferences

### Definition:

The indicator measures individual's preferences towards being self-employed or being an employee.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assesment of Relevance</i> The cultural and social norms for entrepreneurship is a <u>direct</u> measure of the degree in which the national culture and norms supports entrepreneurship and consequently the starting up of new business.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy measures may have an <u>indirect</u> impact on the national preference to become entrepreneur. Furthermore, the indicator is opinion-based.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based.	C
	<i>b) Cross-country Comparability</i> Fully comparable. The same question was asked in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for 25 countries of the EU and for the USA, Norway, Iceland and Lichtenstein.	B
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually	A
<b>Source</b>	The data is published by European Commission "Flash Euro Barometer: Entrepreneurship", June 2004, page 7. Available online : <a href="http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf">http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf</a> .	

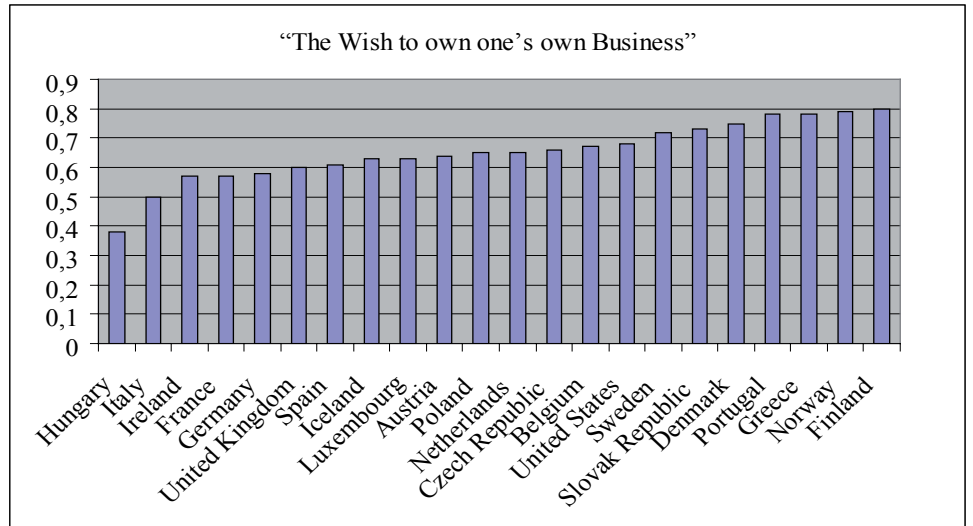


## 4.57 "The Wish to own one's own Business"

### Definition:

The indicator measures people's preferences to own their own business. Respondents who expressed a preference for self-employment were also asked whether they would prefer to own their own business or work for themselves, without necessarily owning a company.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The cultural and social norms for entrepreneurship are a <u>direct</u> measure of the degree in which the national culture and norms support entrepreneurship and consequently the starting up of new business.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy measures may have an <u>indirect</u> impact on the national preference to become entrepreneur. Furthermore, the indicator is opinion-based.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same question was asked in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the 25 countries of the EU and for the USA, Norway, Iceland and Lichtenstein.	B
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	The data is published by European Commission "Flash Euro Barometer: Entrepreneurship" June 2004, page 19. Available online : <a href="http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf">http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf</a> .	

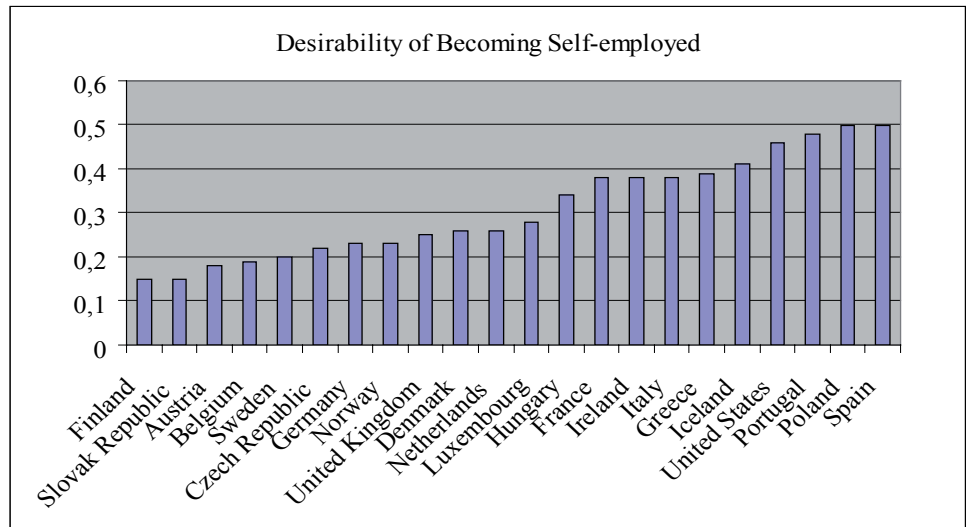


## 4.58 Desirability of Becoming Self-employed

### Definition:

The indicator measures people's desire to become self-employed within the next 5 years. This question was asked only to non-self-employed individuals.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The cultural and social norms for entrepreneurship is a <u>direct</u> measure of the degree in which the national culture and norms supports entrepreneurship and consequently the starting up of new business.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy measures may have an <u>indirect</u> impact on the national preference to become entrepreneur.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is <u>opinion</u> -based.	C
	<i>b) Cross-country Comparability</i> <u>Fully comparable</u> . The same question was asked in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the 25 countries of the EU and for the USA, Norway, Iceland and Lichtenstein.	B
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	The data is published by European Commission "Flash Euro Barometer: Entrepreneurship", June 2004, page 22. Available online : <a href="http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf">http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf</a> .	



## 4.59 Risk for Business Failure

### Definition:

The indicator measures people's perception of being willing to start a business if a risk exists that it might fail.

Assessment		Grade
<b>Overall</b>		<b>C</b>
<b>1. Relevance</b>	<i>a) Assessment of Relevance</i> The cultural and social norms for entrepreneurship is a <u>direct</u> measure of the degree in which the national culture and norms supports entrepreneurship and consequently the starting up of new business.	A
	<i>b) Assessment of Policy Indicator Typology</i> Policy measures may have an <u>indirect</u> impact on the national preference to become entrepreneur.	B
<b>2. Accuracy</b>	<i>a) Data Collection Method</i> The indicator is opinion-based.	C
	<i>b) Cross-country Comparability</i> Fully comparable. The same question was asked in every country.	A
<b>3. Availability</b>	<i>a) Availability across Countries</i> The indicator is available for the 25 countries of the EU and for the USA, Norway, Iceland and Lichtenstein.	B
	<i>b) Availability over Time</i> The indicator is available for 2004 and will be updated annually.	A
<b>Source</b>	The data is published by European Commission "Flash Euro Barometer: Entrepreneurship", June 2004, page 52. Available online : <a href="http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf">http://europa.eu.int/comm/public_opinion/flash/fl160_en.pdf</a> .	



*Note: Lower values are assumed to be more conducive for entrepreneurship performance than higher values for this indicator*

