Businesses' Views on Red Tape

ADMINISTRATIVE AND REGULATORY BURDENS ON SMALL AND MEDIUM-SIZED ENTERPRISES

GOVERNANCE



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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Foreword

Entrepreneurship and business activities are shaped not only by markets, but also by regulatory and administrative environments established by governments. Regulations and government formalities are important tools used by governments to carry out public policies in many areas, including safety, health, and environmental protection. These kinds of interventions into markets will continue to be needed in many cases to protect public interests.

There is a real risk, however, particularly in a time of profound and rapid change in economic and social conditions, that regulations and formalities can impede innovation or create unnecessary barriers to trade, investment, and economic efficiency. Regulations and formalities that are outdated or poorly designed to achieve policy goals can impose unnecessary costs. The cumulative effect of many regulations and formalities from multiple institutions and layers of government is to slow down business responsiveness, divert resources away from productive investments, hamper entry into markets, reduce innovation and job creation, and generally discourage entrepreneurship. These effects are more costly in global markets, where business competitiveness can be affected by the efficiency of the domestic regulatory and administrative environment.

OECD countries have agreed that more attention is needed to understand how governments can achieve policy objectives in ways more compatible with market dynamism and efficiency. A key step in supporting such efforts is the development of more detailed, systematic, and comparable information on business environments in OECD countries. This publication is a step toward responding to this demand. Based on the results of a survey of almost 8 000 small and medium-sized businesses, it aimed to gauge SME perceptions of the general quality of regulations, their application by the national and subnational public services, and the on-going administrative burdens associated with compliance, as well as recent trends toward lower or higher compliance costs. The survey was conducted in 11 OECD countries: Australia, Austria, Belgium, Finland, Iceland, Mexico, New Zealand, Norway, Portugal, Spain, and Sweden.

The report was prepared under the direction of Scott H. Jacobs, former Head of the OECD Programme on Regulatory Reform, and César Córdova-Novion, Deputy

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Head of the Programme on Regulatory Reform. It was prepared with the assistance of Cassandra De Young, Hélène Perrin and Sandrine Duchesne in the Public Management Service of the OECD. Mr Bernard Grais provided statistical advice to the project. The Secretariat expresses its appreciation to Bethan Devonald and Bruce Ballantine from Business Decisions Limited, UK for their dedicated work in drafting earlier versions of this report. It thanks the 11 OECD governments and national business associations that participated in the survey. The business associations are:

Australia	Australian Chamber of Commerce and Industry (ACCI)
Austria	Austrian Economic Chamber
Belgium	Fédération de l'Entreprise Belge (FEB) and Conseil Supérieur des Classes Moyennes.
Finland	Confederation of Finnish Industry and Employers, and the Federation of Finnish Enterprises
Iceland	Employers Association and Chamber of Commerce
Mexico	Private Sector Centre for Economic Studies (CEESP) part of the Business Co-ordinating Council (CCE) and Confederation of Industrial Chambers of Commerce (CONCAMIN)
Norway	Næringslivets Hovedorganisasjon (Confederation of Norwegian Business and Industry) Handels- og Servicenæringens Hovedorganisasjon (Confederation of Norwegian trade and service industry) Norsk Bedriftsforbund (Association of Norwegian SMEs)
Portugal	Portuguese Industrial Association (AIP)
Sweden	The Swedish Employers' Confederation (SAF)

The Secretariat also recognises the contributions of the OECD's Business Industry Advisory Committee (BIAC) and the members of the OECD's Working Party on Regulatory Management and Reform who participated in the design of the survey and who reviewed and commented on the report. This report is published on the responsibility of the Secretary General of the OECD.

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Executive Summary

Entrepreneurship and business activities are shaped not only by markets, but also by regulatory and administrative environments established by governments. Regulations and government formalities are important tools used by governments to carry out public policies in many areas, including safety, health, and environmental protection. These kinds of interventions into markets will continue to be needed in many cases to protect public interests.

There is a real risk, however, particularly in a time of profound and rapid change in economic and social conditions, that regulations and formalities can impede innovation or create unnecessary barriers to trade, investment, and economic efficiency. Regulations and formalities that are outdated or poorly designed to achieve policy goals can impose unnecessary costs. The cumulative effect of many regulations and formalities from multiple institutions and layers of government is to slow down business responsiveness, divert resources away from productive investments, hamper entry into markets, reduce innovation and job creation, and generally discourage entrepreneurship. These effects are more costly in global markets, where business competitiveness can be affected by the efficiency of the domestic regulatory and administrative environment.

Yet identifying and measuring the effects of regulatory environments on the economy are difficult tasks. This report presents results from a multi-country business survey implemented between April 1998 and March 1999 covering almost 8 000 small and medium-sized enterprises (SMEs) in 11 countries: Australia, Austria, Belgium, Finland, Iceland, Mexico, New Zealand, Norway, Portugal, Spain, and Sweden. Three standardised questionnaires were prepared by the OECD on tax, employment, and environmental protection regulations. Each survey measured

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enterprises' perceptions of the quality of the regulations and formalities, perceptions of the quality of the regulatory administration, and estimates of the administrative costs of complying with the regulations and formalities.

The results of the OECD survey show that administrative compliance costs for SMEs are substantial for businesses and for the economy as a whole

– Administrative compliance costs represent around 4% of Business Sector GDP across the countries surveyed. The estimates varied from less than 2% in Finland to 7% in Spain.

– On average, each SME declared that it spent US$27 500 per year complying with the administrative requirements of tax, employment, and environmental regulations. This equates to an average cost of US$4 100 per employee, or around 4% of the annual turnover of companies.

– A dramatic "regressive effect," seen in other surveys, is confirmed. Regulatory and formality costs have an increasingly disproportionate impact on smaller companies. Small SMEs (with 1-19 employees) spent US$4 600 per employee per year, while medium-sized SMEs (with 20-49 employees) spent US$1 500 per employee per year. Large SMEs (with 50-500 employees) spent an average of US$900 per employee per year.

– Significant differences in total administrative compliance costs were reported between economic sectors. Service sectors had higher proportional costs (per employee) than did the manufacturing sector.

– Companies used a mix of internal and external resources to comply with regulations. Approximately 44 of these costs were internal to the company, and around 56% were external, usually contracted out to experts.

– The majority of the administrative compliance costs were spent on complying with tax (46%) and employment (35%) regulations. On average, the amount spent complying with environmental regulations was lower (19%), though these costs were growing rapidly.

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– The majority of companies (around 60%) reported that administrative compliance costs increased over the period 1998-1999.

The survey also tried to evaluate indirect costs of employment regulations on business performance

Around 80% of SMEs believed that compliance with employment regulations negatively impacted their business performance. Approximately 60% of SMEs believed that employment regulations had a significant impact (medium or high) in three areas: they increased non-wage labour costs; they created difficulties in making staff reductions; and they created difficulties in hiring new staff.

Quality of regulations, as defined by OECD criteria of efficiency, transparency, and simplicity, were also evaluated

Overall, SMEs were critical of the quality of tax and employment regulations in their countries, but they were less critical of the quality of environment regulations. They criticised tax and employment regulations because they were not flexible enough to be implemented efficiently by companies; they did not achieve their objectives as simply as possible; they were not easy to understand; and changes were unpredictable.

SMEs believed that the general level of compliance with regulations was moderate to high. Compliance with employment and environment regulations was perceived to be lower than compliance with tax regulations. Compliance was perceived to be lowest among the smallest enterprises.

Managers of SMEs perceived that the degree of consultation during the process of developing new regulations was low. The vast majority of companies (77%) believed that businesses were seldom or never consulted. Only 9% of companies believed that businesses are often or always consulted.

The survey assessed SMEs' opinion of quality in applying and administering regulations

SMEs were critical of the response from the public administration when they sought information (not decisions) from government officials. They were critical about the consistency of information received (if different people were contacted) and the ease with which they locate and contact responsible agencies. A majority of firms agreed, however, that in the end they got the necessary answers.

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SMEs were more critical about the quality of administration when seeking decisions from government offices. SMEs indicated they made an average of eight requests for authorisations or decisions each year. When results are adjusted for the number of employees in each firm, small SMEs made approximately four times the number of requests per employee than medium-sized SMEs and eight times the number of requests than larger ones. SMEs were critical of the lack of clarity about who is responsible for decisions; the lack of consistency and predictability of decisions (over time and among similar companies). The speed of government decision-making and a lack of definitive answers from officials were perceived as less problematic.

In general, companies had a lower opinion of the quality of decision-making in employment and tax offices than in environmental offices.

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I. Introduction

Work on the measurement of the costs of regulatory compliance for businesses began in 1995, when the Working Party of Regulatory Management and Reform of the Public Management Committee asked the OECD Secretariat to develop a cost-effective approach to assess regulatory burdens. After extensive consultations, the OECD Multi-country Business Survey was implemented between April 1998 and March 1999 in 11 OECD countries: Australia, Austria, Belgium, Finland, Iceland, Mexico, New Zealand, Norway, Portugal, Spain, and Sweden.

The Multi-country Business Survey was conducted to help OECD focus on areas of perceived weakness and investigate strategies to improve the quality of regulations and government formalities. The survey aimed to:

- Measure and compare direct regulatory and administrative compliance costs across different countries, policy areas, and businesses by using a standardised methodology.
- Assess business perceptions of the quality of regulations and the quality of regulatory administration.
- Evaluate aspects of indirect costs arising from employment regulation.

This report focuses on key issues, which should provide policy makers with an overview of the main findings from the survey. It also sets the policy context that led to the implementation of the survey, the theoretical issues related to measuring regulatory costs, a brief description of the various approaches, the reasons for the OECD's choice of method, a summary of the limitations and advantages of the business survey, and a description of the main characteristics of the survey.

A series of appendixes complement the main report. Appendix I provides a more detailed description of the specific findings in participating countries. Appendix II is a comparative analysis of the Business Survey results with other surveys. A series of technical appendixes provide additional information on the survey's instruments and findings.

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1. The importance of regulatory burdens

Entrepreneurship and business activities are shaped not only by markets, but also by regulatory and administrative environments established by governments.[1] Regulations and government formalities are important tools used by governments to carry out public policies in many areas, including safety, health, and environmental protection. These kinds of interventions into markets will continue to be needed in many cases to protect public interests. They are used, for example, to collect taxes, to protect consumers from unsafe products, to protect employees from unfair employment practices and unsafe practices in the workplace, and to protect the environment.

Regulations can also create benefits for companies. They can set frameworks in which commercial transactions take place at lower cost. Pro-competition regulations can help smaller companies and entrepreneurs gain access to markets previously reserved for government organisations or large enterprises. Social regulations that protect consumers also impact on the competitiveness of companies. Consumer protection regulations have, for example, created market confidence in sectors as diverse as food, financial services, and pharmaceuticals. Moreover, reporting information (for instance for tax requirements) may also improve the accounting and information systems of small companies.

There is a real risk, however, particularly in a time of profound and rapid change in economic and social conditions, that regulations and formalities can impede innovation or create unnecessary barriers to trade, investment, and economic efficiency. Regulations and formalities that are outdated or poorly designed to achieve policy goals can impose unnecessary costs. The cumulative effect of many regulations and formalities from multiple institutions and layers of government is to slow down business responsiveness, divert resources away from productive investments, hamper entry into markets, reduce innovation and job creation, and generally discourage entrepreneurship. These effects are more costly in global markets, where business competitiveness can be affected by the efficiency of the domestic regulatory and administrative environment.

Many studies confirm that inefficient, outdated, or poorly applied regulations reduce business performance. Work by the World Bank, for example, concluded that regulations were perceived to be amongst the highest obstacles to doing business in OECD countries.[2] Out of a list of 15 potential obstacles, tax, employment and environment regulations were considered by companies in 69 countries to be the top three obstacles to good performance.

A survey of 2 100 companies in Europe by UNICE showed that regulations can had significant negative impacts on business development.[3] The study indicated that regulations influenced the extent to which companies were able to develop the key capabilities that drive long-term success – the ability to innovate, to maximise

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operating efficiency, and to adapt to change over time. UNICE concluded that regulations affected these key capabilities because they raised costs in a company; reduced the flexibility with which a company can operate; limited the speed of decision-making in a company; diverted management attention away from strategic issues; and distorted capital investment decisions.

These problems are particularly severe for small and medium-sized enterprises (SMEs). SMEs are less well-equipped to deal with these problems than are larger enterprises. They have less management depth, less turnover to absorb increases in fixed costs, and fewer financial resources. SMEs rely more on flexibility and speed for their competitive edge in the market.

The costs of regulation are felt most directly by companies. But, more importantly, regulations create costs for society at large if they undermine the competitiveness of companies, reduce consumer choice, restrict economic growth and inhibit the creation of new jobs. The challenge is to produce the benefits of public policies for citizens and the environment, while reducing the negative effects of policy instruments such as regulations and government formalities on economic performance.

Governments in OECD countries are aware of this challenge and have taken steps to reduce the negative impacts of regulations and formalities on companies. Some have introduced programmes to reduce the quantity of regulation, while others have introduced initiatives to improve the quality of regulations and their administration.[4]

One of the major problems facing governments in OECD countries, however, is that the empirical evidence to support and focus such initiatives is weak. There is a lack of cross-country and cross-policy comparative data and benchmarks. The OECD set out to develop and implement a method to enable more detailed cross-country comparisons of costs and quality, based on business perceptions.

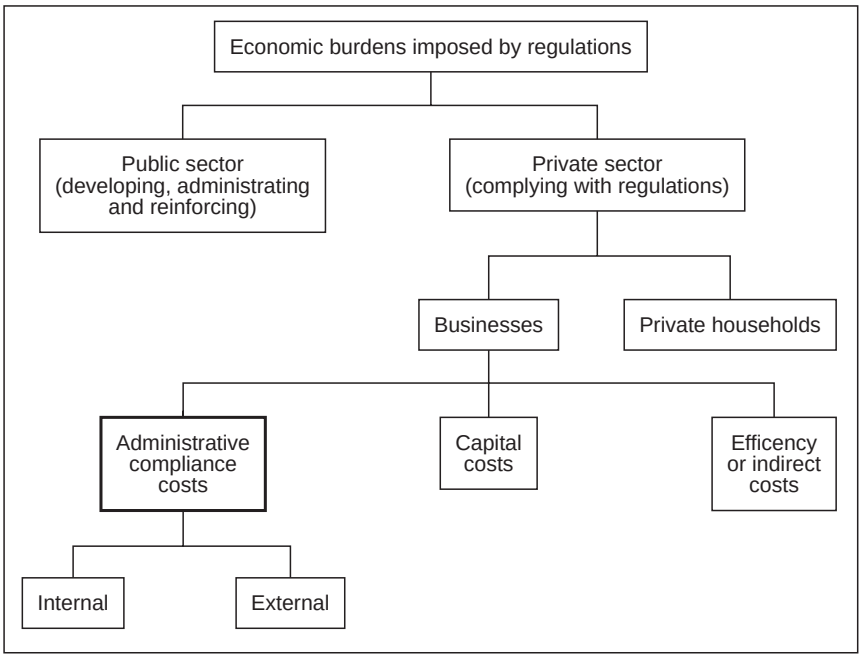
2. The difficulties of measuring regulatory costs

The identification, measurement, and comparison of regulatory costs is difficult. In some cases, the problem is the absence of a clear definition of relevant costs. Box 1 presents a simplified categorisation of the regulatory costs used in this report, divided according to the type of cost and the sectors affected. The public sector absorbs the costs of developing, administering, and enforcing regulations while the private sector (businesses and private households) incurs the initial costs of complying with these regulations (although ultimately these costs filter through to the economy at large). In particular, businesses see three different costs:

- Administrative compliance costs and other operating costs, such as filling in forms and other government information requirements.
- Capital Costs when businesses need to make capital investments to comply with regulations.

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Box 1. **Main categories of regulatory burdens**



Source: Adapted from Jacobs, Scott, *et al.* (1997), "Regulatory quality and public sector reform," in OECD (1997), T*he* OECD *Report on Regulatory Reform*: T*hematic* S*tudies*, Paris.

– Indirect Costs (or efficiency costs) which arise when regulations reduce the productivity and innovativeness of enterprises by, for example, hampering business management or distorting resource allocation.[5]

This description belies the complexity of analysing *ex post* the costs associated with regulations. There are theoretical problems that make it difficult to measure and compare regulatory costs. These include, for example, the difficulty of measuring the *net* costs to companies, taking into account the benefits of regulations to them. They also include the difficulty of estimating the costs that would have been incurred in any case, to obtain information needed for management purposes. There are also practical difficulties in measuring the costs of regulatory compliance. To measure direct costs a researcher needs to track the whole impact of the

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financial expenditure (*e.g.* calculating depreciation and overhead) of, for instance, installing a filter to reduce pollution. But he/she may also need to differentiate, as far as possible, which costs are regulatory-driven and which are the result of a business investment decision.[6]

Measuring indirect or efficiency costs is even more complex as the costs are often incorporated into the production process or the design parameters of a product and, therefore, are extremely difficult to value. In most cases, these costs are passed to consumers and workers, are not clearly defined, or are taken for granted by existing businesses. Also, one must usually define a baseline assuming the situation without the regulation, which is always uncertain.

On the other hand, the measurement of administrative compliance costs has been relatively frequently studied, in particular in the field of tax compliance.[7] But even in this more "controlled" field, which focuses on the time and money spent by businesses on the formalities and paperwork necessary to comply with tax regulations, measurement difficulties are serious. For instance, companies do not monitor these costs within their management information systems. Quantification therefore relies on estimates. As large numbers of people are often involved in compliance, and they may spend small amounts of time on a frequent (but not necessarily regular) basis, such estimates may not always be reliable.

3. OECD work on measuring the compliance costs of regulations and formalities: the launching of a multi-national business survey

To avoid some of the most intractable difficulties in measuring compliance costs, the OECD decided to concentrate primarily on on-going administrative compliance costs incurred by businesses. These kinds of costs are likely to be the most visible and easily measured, and past studies have found them to be significant. A cost-efficient methodology was needed to measure these costs *ex post*. The OECD considered two broad methods: "bottom-up approaches" and "top-down approaches" (see Box 2).

After extensive consultation with Member countries, businesses, and experts, including examining other business surveys,[8] the OECD decided to use the "top-down approach" based on a Multi-country Business Survey to be implemented through the joint participation of national partners in individual countries.

4. The limitations and advantages of large-scale business surveys

The business survey approach adopted by the OECD has methodological problems. As already indicated, companies do not monitor administrative compliance costs in their internal management information systems. Business surveys, therefore, rely on the estimates provided by respondents, which may not be an accurate reflection of the actual costs. In interpreting the results of such surveys,

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Box 2. **Approaches to measuring administrative compliance costs**

"Bottom-up Approach"

Bottom-up approaches take many forms, including case studies based on the detailed study of individual companies, in-depth interviews conducted with managers in a small number of companies, direct observation of activities, the use of diaries by managers in different companies, and the use of computer models based on detailed assessments of activities carried out in a small group of companies.

The common characteristic of these approaches is that they are based on small-scale and non-representative samples. They tend, therefore, not to be representative of the population of companies as a whole. Great care must therefore be taken in the interpretation of the results from these bottom-up approaches. They are not usually capable of generating reliable aggregate estimates of the cost of administrative compliance for businesses as a whole.

"Bottom-up" approaches do have a useful role to play, particularly in complementing "top-down" approaches. They often provide a more detailed understanding than is possible from large-scale surveys. They are particularly useful for identifying ways to reduce costs. An example of a successful "bottom-up" approach is the Mistral Project in the Netherlands, which is a computer model designed to *ex ante* evaluate the business impact of regulations. It has been used to quantify the administrative compliance costs of different regulations in the Netherlands.[1]

"Top-down Approach"

Top-down approaches are usually based on relatively large-scale business surveys. They usually involve the use of postal questionnaires, and are based on representative, random samples. Estimates provided by respondents are then extrapolated to provide aggregate estimates of the cost of administrative compliance for businesses as a whole.

This approach has methodological weaknesses, discussed in Section 4 below. Nevertheless, the "top-down" approach is useful for producing estimates of the cost of administrative compliance that are the right "order of magnitude". They permit the measurement of aggregate costs, rather than the cost of individual regulations. This enables researchers to extrapolate data to produce estimates of national costs. They are also a relatively cost-effective means of collecting information. While they cannot generate precise cost estimates, they can make a useful contribution to the debate on regulatory reform.

1. OECD (1999), *The* OECD *Reviews on Regulatory Reform, Regulatory Reform in the Netherlands*, Paris, p. 141.

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note should be taken of their possible limitations and the limitations of the indicators derived from them:

- The data collected reflect business perceptions, not empirical, independent measurements. The OECD questionnaires were constructed to guard against bias, but the possibility exists that businesses inaccurately assessed costs. Some may exaggerate the costs for "political" purposes, such as the desire to embarrass the government, or the desire to achieve a reduction in compliance costs (so-called "strategic behaviour").[9] On the other hand, others may understate them because they simply do not know or cannot remember all of the formalities and paperwork that are routinely undertaken to comply with regulations.

- Opinion surveys of businesses are, in particular, susceptible to the business cycle. Poor company performance may induce managers to respond to opinion surveys in a negative fashion.

- Companies carry out a range of administrative procedures to meet the obligations resulting from regulations. Some of these provide valuable information to the company, and the company would undertake some of them for their own purposes, even if no regulation existed. It is however, difficult to disentangle these activities from regulatory compliance activities that are only carried out for compliance purposes. Moreover, it is not possible to assume that, without regulations, companies would do things in a different way or less frequently.

- Cultural factors may play a part in the way in which respondents complete questionnaires. In some societies, it is more acceptable to be critical of governments and people in authority than in others. This may play a part in explaining some of the differences that emerged between countries. Moreover, a high profile in the media to discussion of certain issues (such as administrative compliance costs) can raise awareness among SMEs of problems that they might otherwise be less attuned to, and convince them that costs are indeed high.

But large-scale mail surveys have important advantages that led the OECD Secretariat to choose the business survey approach to gather internationally comparable information about the cost and quality of regulations from the perspective of businesses. If the sample is well-designed to give a high absolute number of respondents, then low response rates cause less of a problem, as long as non-respondents can be assumed to have similar characteristics as respondents. Respondents can choose to complete the questionnaire at a time of their own choosing. In the case of mailed surveys, they have time to think about their responses, and consult records or other people. Moreover, the cost of a mail survey is lower than most other methods of data collection.[10]

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5. Main characteristics of the OECD Business Survey

A major aim of the multi-country business survey was to develop a "best practice" survey instrument based on previous efforts in the field. In particular, the OECD took steps to limit some of the main flaws of the methodology discussed above. The scope of the study was limited in a number of key dimensions:

- Following a pilot test of the survey, only small- and medium-sized enterprises (SMEs)[11] were included in the sample to increase the likelihood that a single knowledgeable person would be able to answer the questions.
- The survey included only three areas of regulation (tax, employment, and environmental protection). These areas have been identified in other studies as the most important regulatory areas with respect to business costs.
- The survey focussed on measuring the direct administrative compliance costs incurred by companies when complying with regulations. This covers the time and money spent by companies on the formalities and paperwork involved in complying with regulations. It did not include the non-administrative compliance costs, for instance capital costs incurred by business such as the investment and equipment needed to comply, although these non-included costs may be larger and of more economic importance.[12]

In addition to administrative compliance costs, the survey attempted to explore two other areas. The first was the indirect costs created by employment regulations due to damaging changes in business behaviour. The second concerned the issue of regulatory quality. The survey explored business perceptions of the quality of regulations and the quality of regulatory administration. The intention was to better understand the factors that may cause higher administrative compliance costs.

The survey was carried out in 11 countries, between April 1998 and March 1999. A total sample of 7 859 SMEs responded out of 22 544 SMEs surveyed (see Table 1). This represents a response rate of 37%. The sample covered SMEs in three size categories (1-19, 20-49, and 50-499 employees), and both manufacturing and service sectors.

Important issues should be taken into account in the interpretation of the results. First, practical problems were experienced during implementation of the survey. In the OECD survey, some participant countries chose for budgetary reasons different sizes of surveys – some of them at the lower limit of representativeness – which may have reduced comparability and accuracy. Questionnaires were also designed to be undertaken by post. In Mexico and Spain, however, the survey was implemented using a telephone. This means that the results from these two countries are less comparable with the results of other countries. Moreover, the response rates for certain questions in the environment questionnaire were in general lower than in the employment and tax questionnaires,

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Table 1. **Size of the sample and response rate by country and by regulatory area**

Participant countries	Date of implementation	Number of firms in the initial sample	Number of questionnaires processed	Response rate (percentage)			
				Employment	Environment	Tax	Total
Australia	April-June 1998	1 500	1 170	88.8	62.4	82.6	78.0
Austria	June 1999	1 500	315	20.8	20.4	21.8	21.0
Belgium	July 1998	4 500	1 217	27.6	26.3	27.2	27.0
Finland	April-June 1998	2 100	839	37.9	40.4	41.6	40.0
Iceland	April-June 1998	1 676	561	32.2	29.2	39.0	33.5
Mexico[1]	April-June 1998	3 026	552	17.8	18.0	18.8	18.2
New Zealand	April 1999	1 500	464	30.2	26.4	36.2	30.9
Norway	April-June 1998	2 106	1 052	50.7	50.1	49.0	50.0
Portugal	3rd quarter 1999	2 600	468	17.4	15.9	20.7	18.0
Spain[2]	January-March 1999	536	536	n.a.	n.a.	n.a.	n.a.
Sweden	April-June 1998	1 500	685	48.8	43.8	44.4	45.7

1. A telephone survey was used in Mexico following a similar methodology used for the mail survey in the other countries.
2. Not applicable due to the methodology used for the telephone survey.

which may suggest that environmental administrative costs are more diffused throughout company practices than the more concentrated management of employment and tax compliance.

Second, the results showed extensive variability between companies (even between those of a similar size in the same sector and country). Real costs and perceptions of costs might have differed according to entrepreneurial experience, style of management and location of each SME.

Third, weighting decisions when calculating estimates influence results. The fact that compliance costs vary strongly with firm size means that average-cost figures are sensitive to weighting. Therefore, the results of the cost estimates of the report were weighted by data on the distribution of firms by size and industry in order to represent the actual distributions of firms in their respective countries and not the biased sample distributions Despite these problems, the findings from the survey were broadly consistent with those from previous surveys and other studies (see Appendix II). Moreover, the results from most countries were of a similar "order of magnitude". This suggests that the findings from the survey provide a useful indicator of the scale and origin of administrative compliance costs for SMEs.

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II. Results from the Survey

The main findings from the OECD Multi-country Business Survey are summarised below. A more detailed description of the findings is contained in Appendix I.[13]

1. Direct administrative compliance costs

The results from the OECD *survey show that administrative compliance costs are substantial and economically significant*

The OECD Multi-country Business Survey shows that average administrative compliance costs in the 10 countries surveyed are substantial.[14] On average, SMEs declared that they spent nearly US$27 500 per year complying with the administrative requirements of tax, employment and environmental regulations. This equated to an average cost of US$4 000 per employee.

There were major differences in administrative compliance costs per company between countries (Figure 1). Estimates vary from a high in Portugal (US$51 100 per SME) to a low in New Zealand (US$8 900 per SME). The relationship between cost per firm and the size of firms is demonstrated in Figure 2. In some cases the difference between countries' estimates is quite substantial. While costs per employee in Portugal (US$1 300) fall well below the 10-country average, those in Belgium (US$6 400) and in Norway (US$6 100) exceed the average. Though the figures may reflect the degree of labour intensity of firms in Portugal, this explanation is not confirmed in the case of other countries, (*e.g.* Spain), where other factors so seem to influence the significance of the impacts.

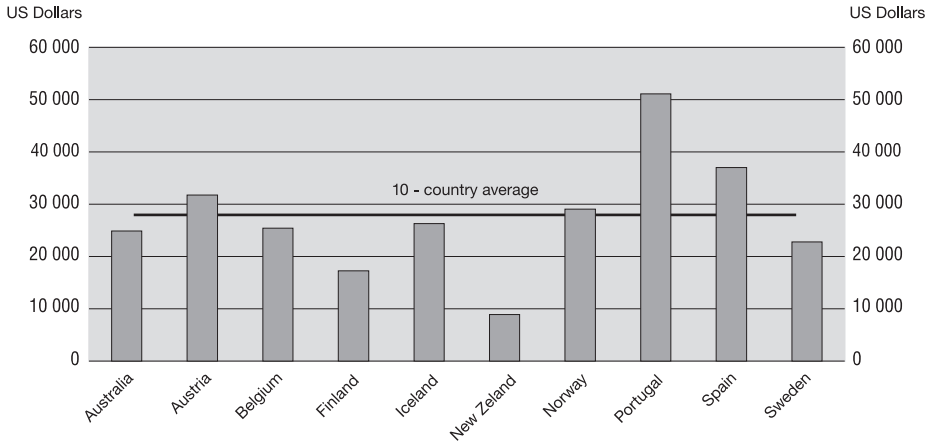
The majority of these costs were spent complying with the administrative requirements of tax (46%) and employment (35%) regulations (see Figure 3). On average, the amount spent complying with the administrative requirements of environment regulations was lower (19%).

There is also a disproportionate impact on smaller companies

The survey confirmed the well-known "regressive" impact of regulations on smaller firms. This is a well-described phenomenon due to numerous interrelated

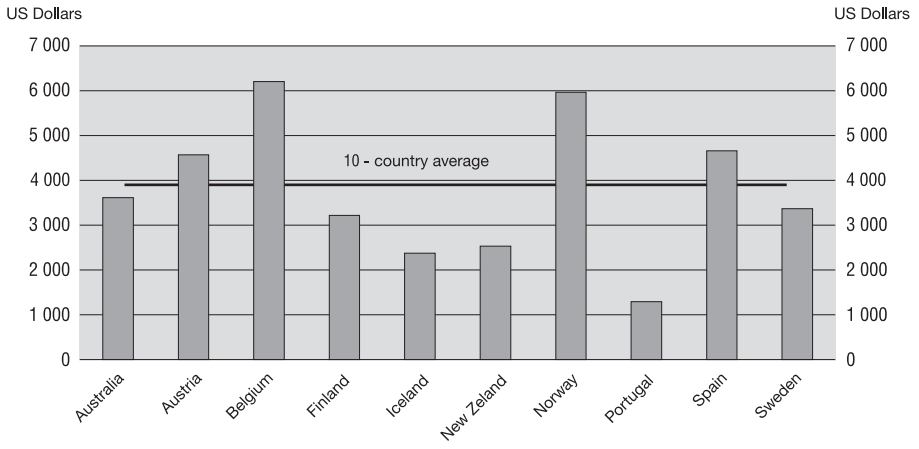
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Figure 1. **Aggregate annual compliance costs – average per SME per country**



Note: : Data for Mexico are not available.
Source: OECD.

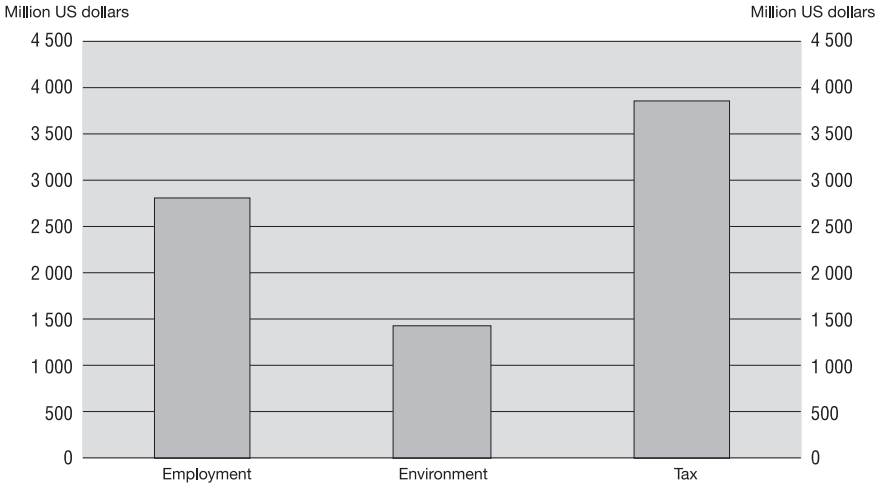
Figure 2. **Aggregate compliance costs – average per employee per firm by country**



Note: : Data for Mexico are not available.
Source: OECD.

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Figure 3. **Aggregate annual administrative costs by regulatory area – average all countries**



Note: : Data for Mexico are not available.
OECD.

factors and particularly to economies of scale and scope when managing a firm (see Box 3 for other reasons). Due to significant fixed cost elements of regulatory compliance, relative administrative costs varied significantly between SMEs of different sizes. Compliance costs per employee were proportionately much higher for smaller companies: costs per employee for small SMEs were over five times higher than for large SMEs. Small SMEs (with 1-19 employees) spend an average of US$25 000 per company or US$4 600 per employee, while medium-sized SMEs (with 20-49 employees) spent an average of US$45 000 per company or US$1 500 per employee. Large SMEs (with 50-500 employees), on the other hand, spent an average of US$96 000 per company or US$900 per employee.[15] The data suggest that a threshold existed below 20 employees after which the cost per employee stabilised.

A variance analysis was undertaken on the data and is presented in Appendix VI. It shows that the "regressive" effect of environment regulations depended on the economic sector and was more pronounced for the service sectors, with or without environmental impacts (see Figure 5). This may be due to the fact that these kinds of environment regulations are designed for big manufacturing firms rather than for the service SMEs.

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Box 3. **Some causes of the "regressive" impact of administrative compliance costs on SMEs**

Three primary reasons for disproportionate regulatory costs on smaller firms are often given. The first is the scale of cost. For many smaller companies, the costs of complying with regulations represent a significant proportion of overhead cost and net margin. At the level of the firm, most of these costs often involve a direct reduction in profitability and retained earnings. As a result companies have fewer internal resources to finance investments in assets, knowledge, and innovation. Shareholders also receive poorer returns. This is of particular importance for smaller companies, as they tend to have fewer internal resources to invest in higher risk activities and lack access to capital markets. In the long-term, this progressive diminution of financial reserves makes smaller companies more vulnerable to financial distress, reduces opportunities for growth, and restricts job creation.

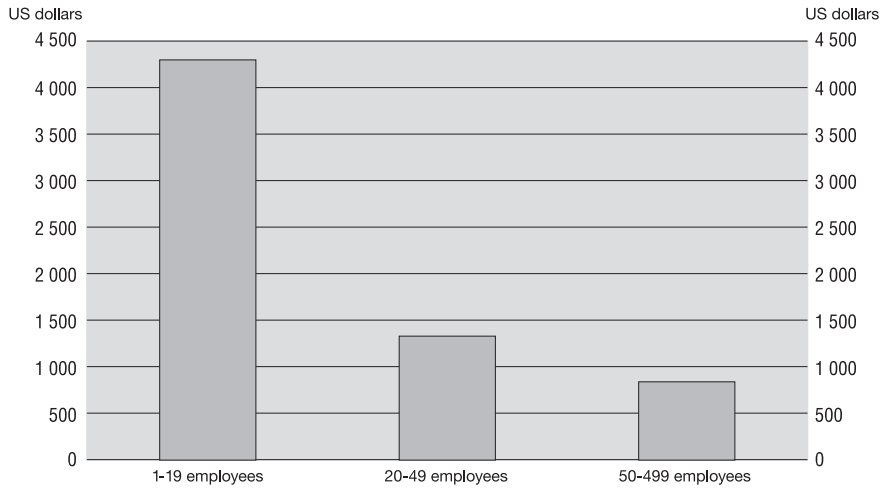
The second reason is the nature of administrative compliance costs. Administrative compliance costs tend to be fixed in nature; changes in sales volume have no short-term effect on them. For companies this creates two problems. First, it raises the "break-even" of the business. This is the level of gross margin that must be generated to cover all fixed costs. If this is increased, the company must increase sales volume or improve unit margins. The second effect is linked to the first. By increasing the level of fixed cost within a company, administrative compliance costs have the effect of increasing the "operational gearing" of the company. Defined as the relationship between fixed costs and the gross margin, it measures the extent of volatility of net profits when exposed to changes in sales and unit margins. As levels of operational gearing increase, companies may become less flexible, less able to exploit new opportunities and more likely to suffer financial loss.

The third reason is the diversion of entrepreneurial attention. Compliance with government regulations demands some form of direct involvement of owners, senior managers or directors. In other words, formalities have a specific impact on one of the main drivers of entrepreneurship. This is more of a problem in smaller companies than in larger ones. Medium- and large-scale companies have the scale and financial resources to employ administrative specialists or external experts. These people deal with the details of regulatory compliance. This leaves senior staff free to focus on business management. Smaller companies have fewer resources and, therefore, tend to be forced to involve senior staff in the detail of ensuring compliance with regulations. Because of the lack of management depth in smaller enterprises, this reduces focus on business management.

As governments face increasing pressure to reduce the scale of their own activities, there is a risk that this problem will get worse. There is considerable scope for the transfer of costs from the public to the private sector by, for example, putting additional responsibilities onto companies to provide information to governments, rather than finding alternative ways to collect information or better using existing information.

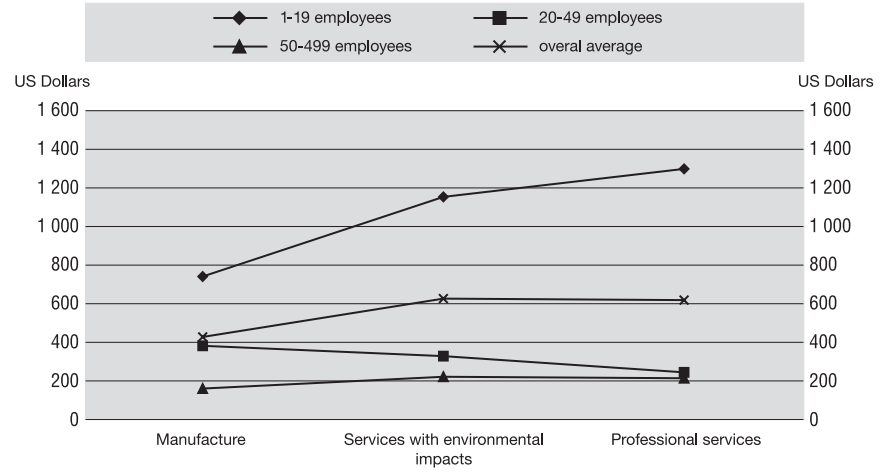
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Figure 4. **Annual administrative costs per employee by company size – average all countries**



Note: : Data for Mexico are not available.
Source: OECD.

Figure 5. **Effect of company size and sector on per-employee compliance costs for environment regulations – average all countries**



Source: OECD.

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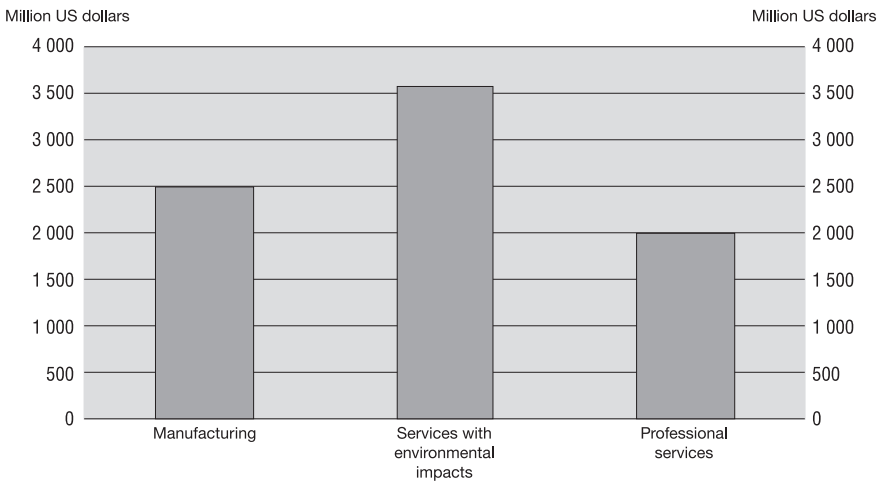
Some service sector companies experienced a higher level of administrative compliance costs than did manufacturing companies

There were some differences in administrative compliance costs between sectors. On the surface, it appears that manufacturing and service companies spent similar amounts on administrative compliance costs. But if companies are divided in the service sector between those with higher environmental impacts (such as transport and public infrastructure companies) and those with lower environmental impacts (primarily professional services such as business service companies), a different picture emerges. Service companies with environmental impacts spent more than manufacturing companies to comply with regulations in many countries (Figure 6). There are, however, some differences between countries (see Figure 28 in Appendix I). In addition, costs per employee were generally higher in both service sectors with and without environmental impacts than in the manufacturing sectors (Figure 7).

Administrative compliance costs represented a significant proportion of companies' revenues

To put these estimated costs into a more general perspective, the OECD developed three indicators of the relative costs of administrative compliance: Total Compliance Costs as a Percentage of a Company's Annual Turnover; Country-

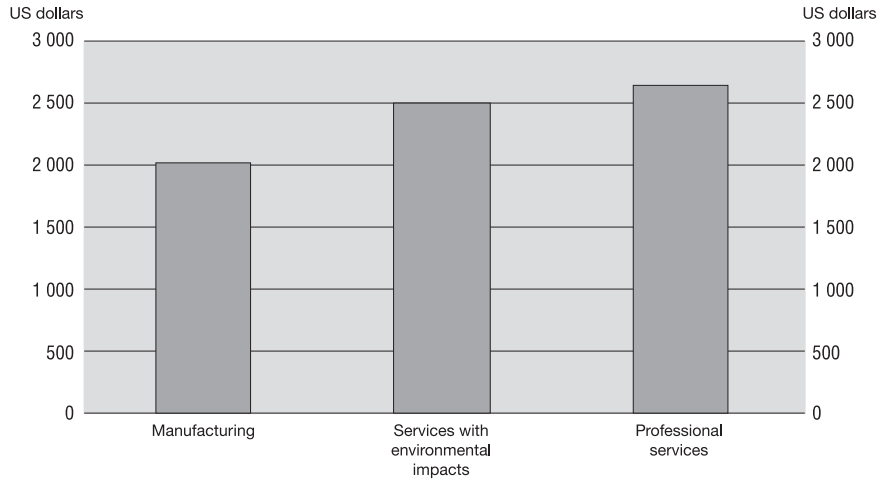
Figure 6. **Aggregate total annual administrative costs by economic sector – average all countries**



Note: : Data for Mexico are not available.
Source: OECD.

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Figure 7. **Annual administrative costs per employee by economic sector – average all countries**



Note: Data for Mexico are not available.
Source: OECD.

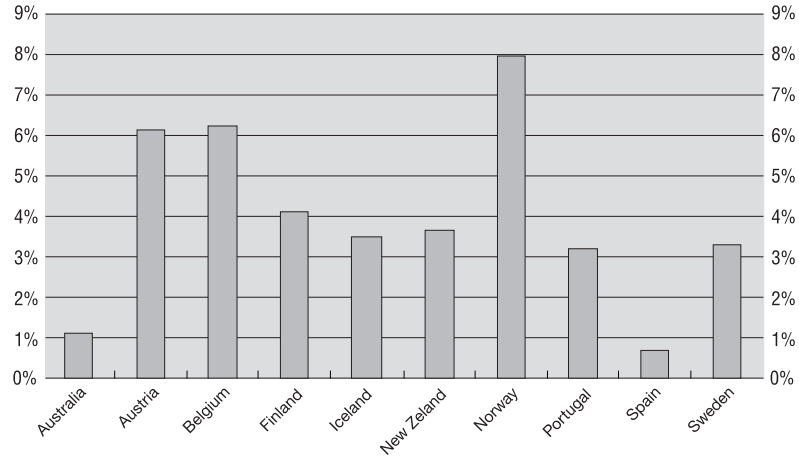
level Total Compliance Costs as a Percentage of the Business Sector and the Economy-wide GDP.[16] Total compliance costs equated to ***around 4% of the annual turnover of companies*** in the 10 countries surveyed (see Figure 8).

This is a significant burden on companies.[17] Based on figures from publicly quoted European companies during the 1990s, This type of burden equates to around 40% of profit before interest and tax as a proportion of sales.[18] Indeed, at the low points in the economic cycle during the 1990s, expenditure on regulatory compliance in three areas was greater than the net profit achieved by quoted companies. Moreover, SMEs generally achieve lower returns on sales than larger, listed companies.

A further problem is when the level of administrative compliance cost tends to be similar – due to their fixed components – for companies across a wide range of service and manufacturing sectors. This is not the case for net margins. Net margins tend to reflect differences in the level of value-added, the need for capital equipment, and competitive intensity. In some sectors, high returns on capital are achieved through a combination of low net margins and high asset intensity. In the distribution sectors, for example, most food wholesalers face net margins of less than 1% of turnover and many grocery food retailers expect to achieve net margins of less than 5% of turnover. In such sectors, administrative compliance costs for the three areas reviewed in our survey are equal to or greater than profit before interest and tax.

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Figure 8. **Total administrative compliance costs as a percentage of annual turnover by country**



Source: OECD.

In view of its scale relative to net margins, small changes in administrative compliance costs can have a significant impact on the profitability of companies, returns on capital, and the availability of retained earnings for investment in innovation and improvements in efficiency. In turn, administrative compliance costs have a material impact on competitiveness, investment and the creation of wealth and jobs.

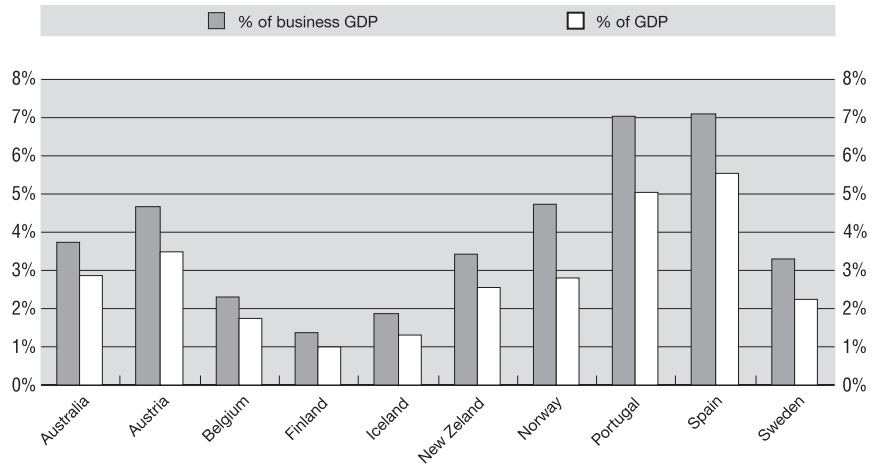
In summary, administrative compliance costs represented a significant proportion of economic resources

Figure 9 shows that the countries in the survey committed a significant proportion of their national economic resources to regulatory administrative compliance. It is also clear that countries with similar levels of wealth, environmental and labour protection invested different amounts in regulatory compliance. Based on the data gathered in the survey, it is estimated that the administrative compliance costs for tax, environment, and employment incurred by SMEs represent an average of 4% of Business Sector GDP and 3% of GDP in the countries surveyed.

The ratios expressed as a percentage of Business GDP should be interpreted as orders of magnitude since they are highly sensitive to certain variables and should be viewed in the context of complete regulatory cost-benefit analyses. However, these results are consistent with those arrived by other studies (see Appendix II), many of which were in the range of 3-4% of GDP for administrative compliance costs.

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Figure 9. **Economy-wide SME costs of regulatory administrative compliance as percentage of business and economy-wide GDP, by country**



1. No estimate is available for the GDP of SMEs; therefore, this indicator reflects not only the different impacts of administrative compliance costs but also the different SMEs' share of the Business Sector GDP in each country. The values will, therefore, be higher for those countries in which SMEs play a larger role in the business economy.
2. Data for Mexico are not available.

Source: OECD.

These costs were likely to be an under-estimate

As previously indicated results from the OECD survey should be interpreted with care. Cost estimates, for example, should be viewed as an indicative guide, or an order of magnitude test, rather than as precise estimates. However, the design of the survey means that cost estimates derived from it are likely to be an underestimate of the total costs of government regulations, because the business survey:

– Did not include any large companies (500 or more employees).

– Did not include all areas of regulation.

– Valued internal costs in such a way that managers and technical staff were assumed to be paid the wages of clerical employees.

– Measured operating costs falling directly on businesses, but not capital costs such as the investment and equipment needed to comply with regulations.

– Excluded companies without any employees (sole proprietors).

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– Focused on existing companies, most of whom have been in existence for some time. It does not capture the administrative compliance costs associated with starting a business, which involves additional requirements.
– Excluded farming and mining sectors.
– Took no account of the indirect effect of regulations, such as the impact of regulations on innovation, operating efficiency, flexibility, or investment.
– Did not take into account the costs borne by the public sector to administer regulations.

There are, however, some areas where businesses may have over-estimated administrative cost burdens. As outlined, some managers may have deliberately exaggerated the costs for "political" purposes. Others may have found it difficult to differentiate the costs of complying with one policy area from the costs of complying with another and, therefore, an overlapping effect may exist that biases the cost estimates upward.

Companies believed that administrative compliance costs were increasing

The majority of companies (around 60%) believed that administrative compliance costs had increased over the previous two years (1998-1999) (see Figure 10).

The main reason identified by companies for increases in tax and employment administrative compliance costs was an increase in the complexity of regulations (see Figure 33 in Appendix I). For environmental regulations, the introduction of new regulations and an increase in businesses complying, as well as increasing complexity, were seen as important drivers of increased compliance costs.

The results from the survey are consistent with those from previous studies…

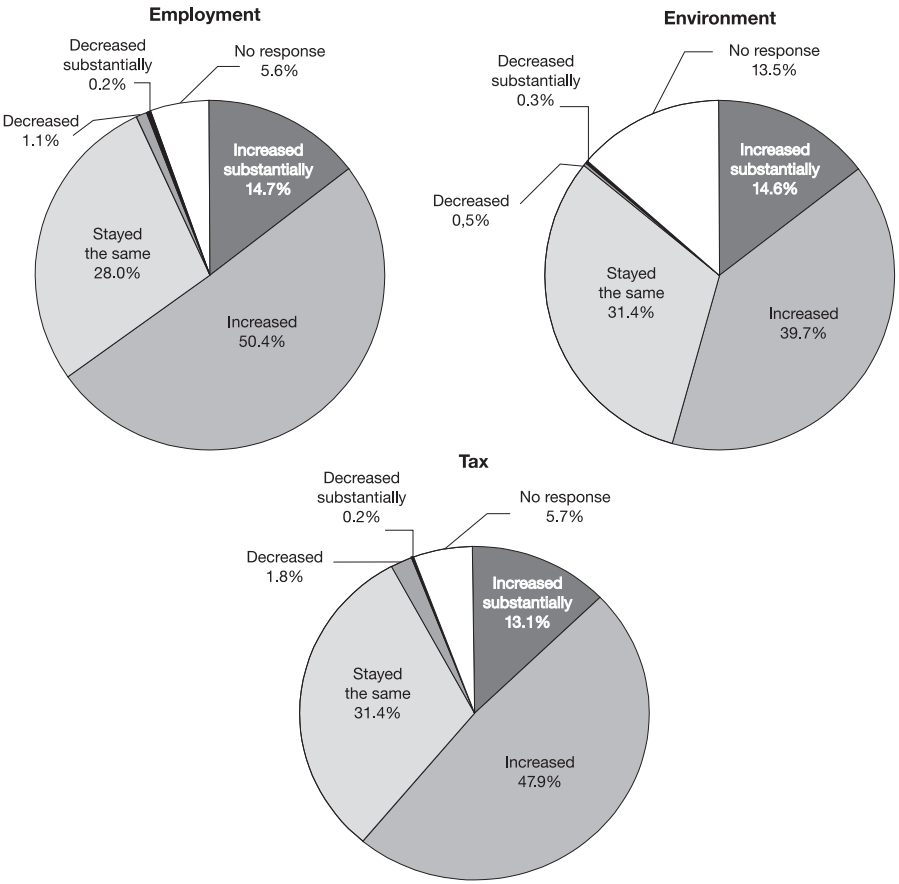
It is difficult to compare the findings from the OECD survey with other research, as other studies employed different methods and used different definitions. In fact, a major objective of the survey was to implement for the first time a single instrument across different countries. In general, however, the findings from the OECD survey are consistent with other work (see Appendix II).

… and variance analysis shows that the impact on SMEs of the regulatory framework inside a country varied significantly in terms of policy areas and business size

The results of an analysis of variance provided evidence that significant differences in cost structures existed among the countries surveyed and that the relative differences varied among the three regulatory areas (see Figure 11). That is, the quality of regulations and their implementation appear to be a significant factor determining regulatory cost (see Appendix VI).

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Figure 10. **Perceived changes in compliance costs for each area of regulation**



Source: OECD.

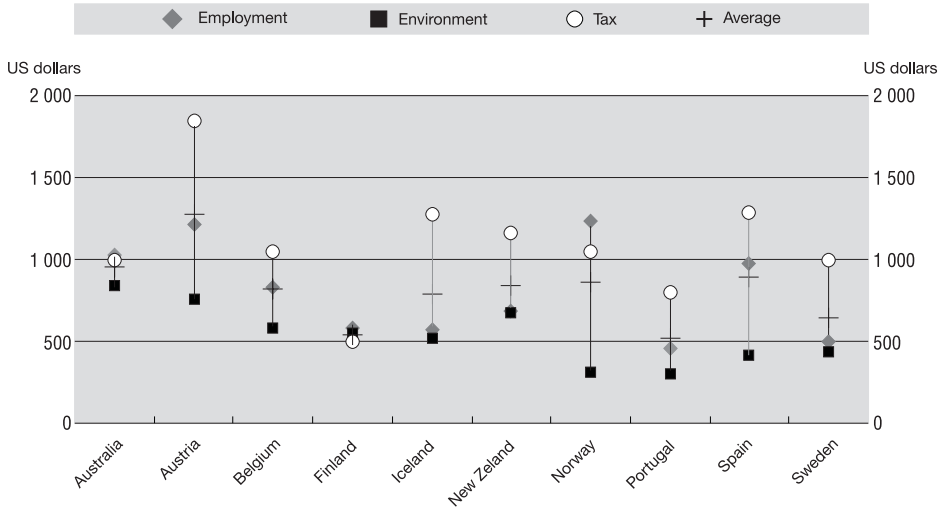
2. Indirect costs

Indirect costs are important because they affect the ability of companies to innovate, operate efficiently, and adjust to changes over time

As discussed previously, companies incur direct costs in order to comply with regulations, but they also incur indirect costs that affect the viability of their businesses. Work by UNICE shows that the direct and indirect costs of regulations influence the extent to which companies can develop the capabilities that drive long-term

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Figure 11. **Average annual compliance costs per employee, by country and regulatory area**



Note: : Data for Mexico are not available.
Source: OECD.

success.[19] Specifically, they affect the ability of companies: to innovate (to develop and exploit new products, services and operating processes); to maximise operating efficiency (to minimise the costs of producing goods and services of a particular quality, and the maximum flexibility); and to make structural adjustments over time (to respond effectively to major changes in the competitive environment).

It is hard to put a monetary value on indirect costs. This is because regulations affect the underlying processes and cost structures within a business, which in turn make it more difficult for companies to innovate, maximise operating efficiency, and adapt to change.

The OECD survey examined some indirect costs created by employment regulations. The findings give some indicators of indirect costs associated with compliance with employment regulations, based on the opinions of senior managers in SMEs.

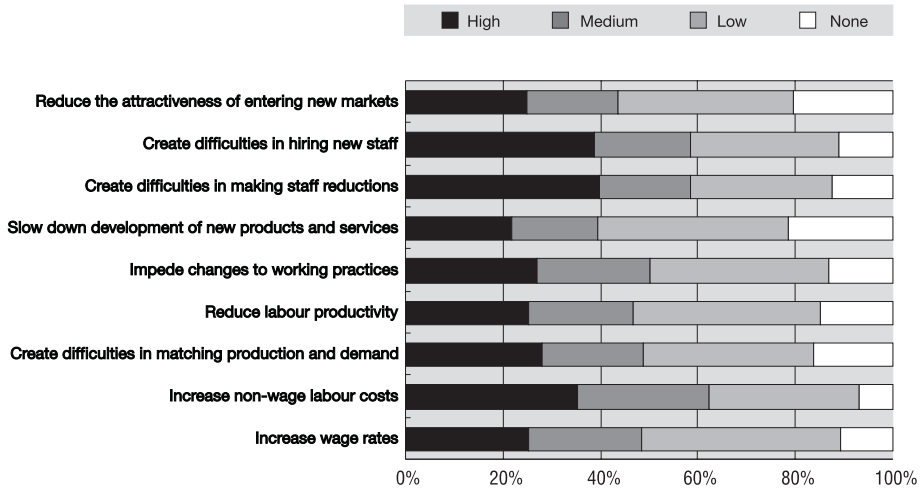
The survey shows that most SMEs *believed that employment regulations created indirect costs for them*

The majority of SMEs believed that compliance with employment regulations impacted business and its performance. These effects were most marked in three

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areas: regulations increased non-wage labour costs; regulations created difficulties in making staff reductions; and regulations created difficulties in hiring new staff (Figure 12). These effects were also found by other studies (Appendix II).[20]

Figure 12. **Indirect costs of employment regulations – average all countries**



Note: : Non-response and no opinion responses are not included here.
Source: OECD.

3. Quality of regulations and formalities

Regulatory quality – efficiency, transparency, and simplicity – affects the level of direct and indirect costs that companies must incur to comply with regulations

Many governments are seeking to improve the quality of regulations by improving design and implementation, that is, their administration and enforcement. Good regulatory quality helps regulators achieve important public policy goals, such as legal certainty, policy effectiveness and compliance. The quality of regulations also affects the level of direct and indirect costs that must be borne by enterprises. Studies have shown that there are significant shortcomings in the existing regulatory quality frameworks in many OECD countries,[21] and OECD countries have agreed on the need to strengthen regulatory quality management at national and subnational levels.[22]

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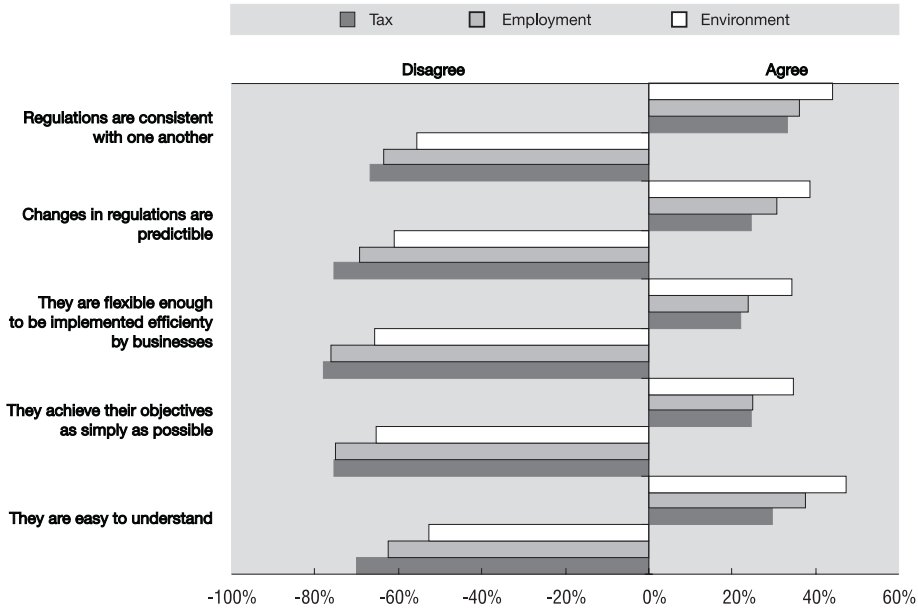
The survey shows that many SMEs *were critical of the quality of regulations*

The OECD survey examined key design "features" of tax, employment, and environment regulations. Overall, SMEs were critical of the quality of tax and employment regulations in their countries, but they were, in general, less critical of the quality of environmental regulations. Other studies have reached similar conclusions (see Appendix II).

SMEs criticised tax and employment regulations for several reasons: they are not flexible enough to be implemented efficiently by companies; they do not achieve their objectives as simply as possible; they are not easy to understand; and changes are not predictable. Environmental regulations were also criticised, but less heavily. Companies believed that they are not flexible enough to be implemented efficiently by companies and they do not achieve their objectives as simply as possible.

Figure 13. **Quality of regulations – average all countries**

% of businesses saying they agree fully or mostly minus % disagreeing mostly or fully



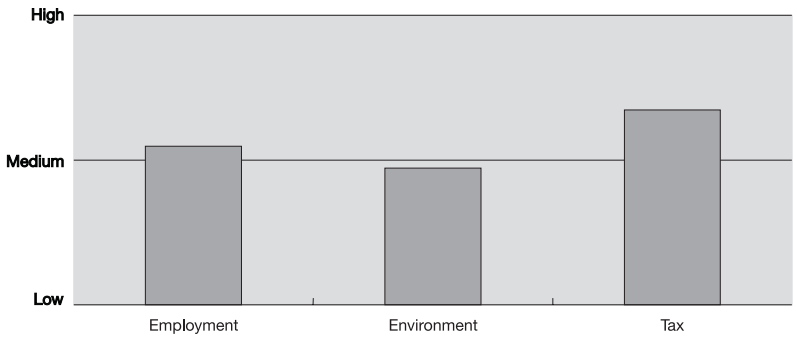
Note: : No account is taken of non responses and no opinion responses.
Source: OECD.

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Levels of compliance with regulations were perceived by SMEs *to be moderate to high*

SMEs believed that the general level of compliance with regulations in their industry is moderate to high. But compliance with employment and environmental regulations was perceived to be lower than with tax regulations. There were also differences between countries (see Figures 43 and 44 in Appendix I).

Figure 14. **Perceived levels of compliance by type of regulation – average all countries**



Source: OECD.

4. The quality of regulatory administration

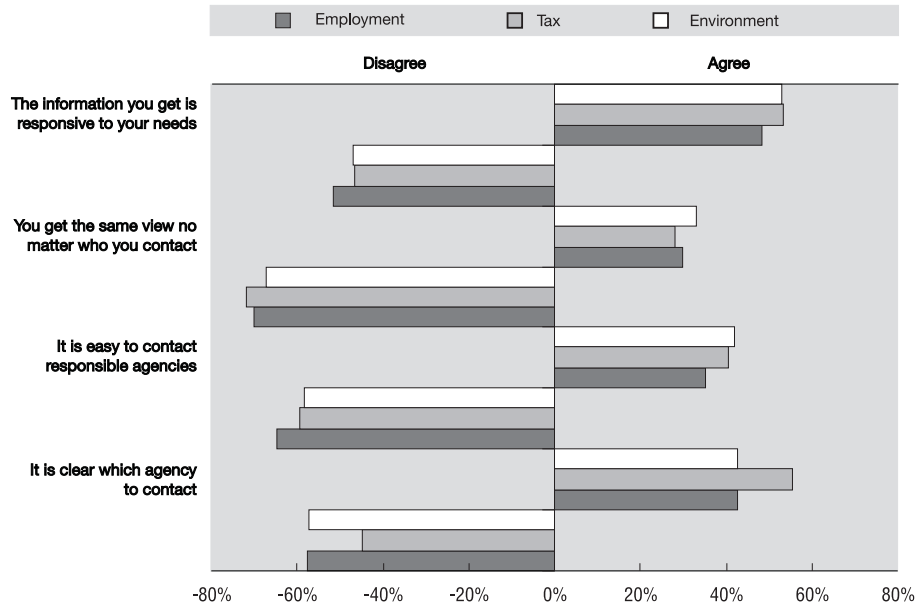
Governments in many OECD countries are seeking to improve how they administer and implement regulations. This is important because, in general terms, it helps regulators achieve higher levels of compliance. Poor administration and decision-making are major drivers of the costs that must be borne by companies and citizens.

SMEs *were critical about the quality of administration when they sought information from government offices*

SMEs were asked to assess the administration of tax, employment, and environmental regulations in their country, based on a set of desirable characteristics. They were asked about the quality of administration first when seeking information from government officials, and second when seeking decisions or permissions from them. The general perception by SMEs in these areas were negative. Specifically, they were critical about the consistency of information received (if different people were contacted) and the ease with which they could contact responsible agencies.

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Figure 15. **Ease and consistency of information on regulations – average all countries**



Note: : No account is taken of non-response and no opinion responses.
Source: OECD.

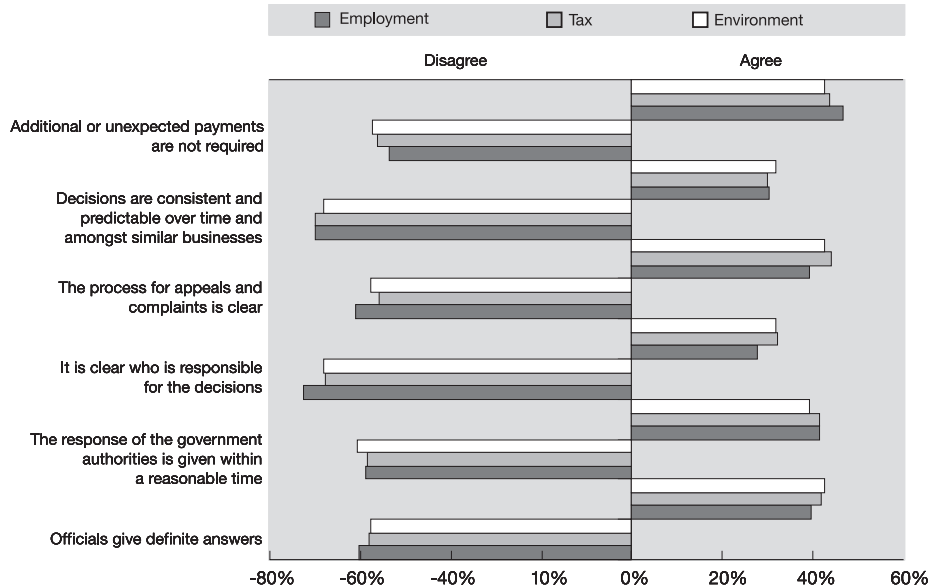
SMEs *were even more critical about the quality of administration when seeking decisions from government offices*

In general, SMEs in the 11 countries were more critical of their contacts with government offices to obtain decisions than they were of their contacts to obtain information. Specifically, they were critical of the lack of clarity about who is responsible for decisions; the lack of consistency and predictability of decisions (over time and among similar companies) and the lack of accountability of the administrator in charge. Surprisingly, given the focus of reforms in many countries on speeding up decisions, the slowness of government decision-making and the lack of definite answers from officials were not considered so unfavourably.[23]

There were differences between areas of regulation. In general, companies were more critical of the decision-making processes in employment offices, and less concerned by problems in the environmental area (the rate of non opinion responses for the environmental questionnaire is significantly higher than for the

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Figure 16. **Efficiency and ease of obtaining administrative decisions – average all countries**



No account is taken of non-response and no opinion responses.
The question relating to the flexibility and bureaucratic nature of the regulatory process was deemed too imprecise to provide useful information and, therefore, excluded.
Source: OECD.

two other questionnaires). This might be related to the fact that SMEs require less information and permits from environment offices and thus had less reason to be dissatisfied (Figures 17 and 18).

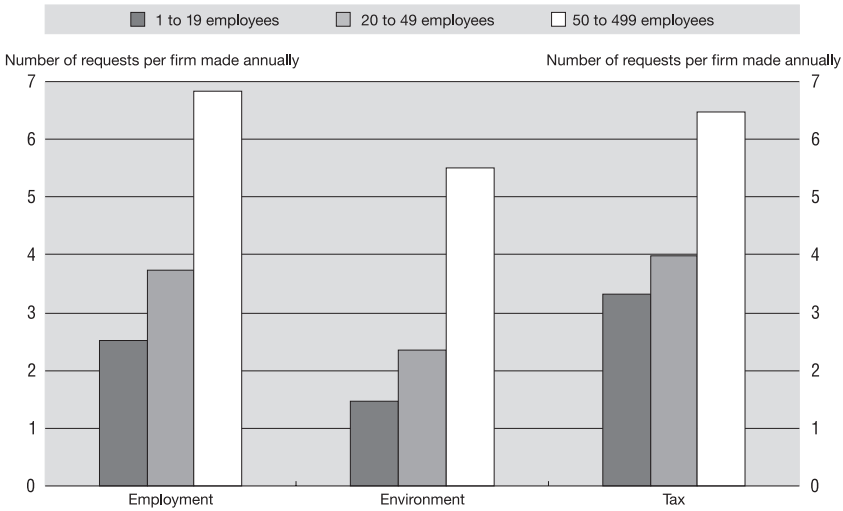
Moreover, there are important differences between countries in how companies perceived the quality of administration when seeking decisions or permissions from government officials (see Figures 48, 51 and 53 in Appendix I).

Good regulatory administration is important because SMEs *made an average of eight requests for authorisations or decisions every year*

Companies in the survey were asked to indicate how many separate authorisations or decisions they request in a single year. Across all company sizes and regulation, firms requested an average of eight decisions per year. The results show that on average large SMEs made approximately 19 requests across the three regulatory areas, medium-sized SMEs made 10 requests, and small SMEs made seven requests per year (Figure 17). When the data are adjusted for the

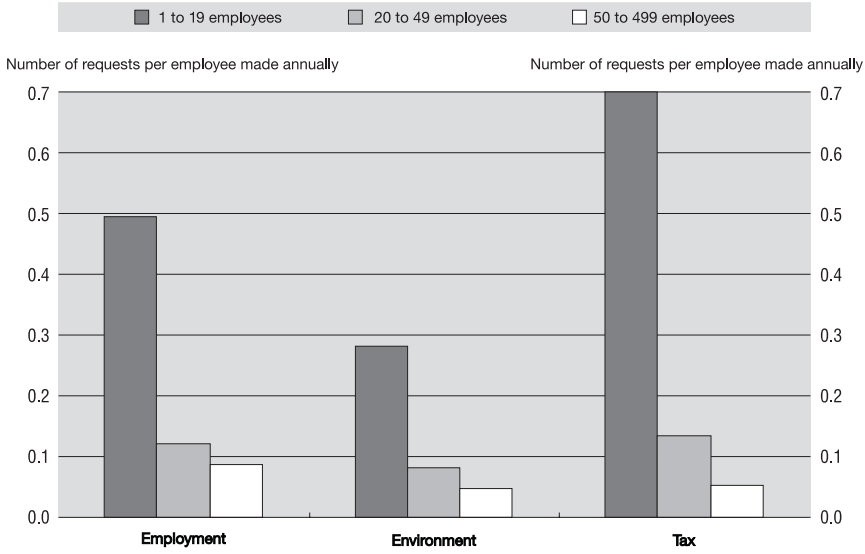
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Figure 17. **Annual number of requests for permissions per firm per regulatory area – average all countries**



Source: OECD.

Figure 18. **Annual number of requests for permissions per employee per firm per regulatory area – average all countries**



Source: OECD.

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number of employees in each firm, small SMEs made approximately four times the number of requests per employee than medium-scale SMEs and eight times more than in large SMEs (see Figure 18). This means that the perceived problems associated with obtaining decisions on regulations may have a significant effect on SMEs in general and in particular small SMEs, given the number of requests for permits made per employee each year. However, important differences existed among participant countries opening questions about the existence of good practices (see Figure 54 in Appendix I).

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III. Conclusion

The findings of this report confirms that government regulations and formalities have significant impacts and cost effects on small and medium-sized enterprises. Information provided by enterprises participating in the survey show that administrative costs consumed a potentially large proportion of a country's output: on average 4% of the business sector's GDP in the participating countries. Red tape also accounted for 4% of the annual turnover of companies. Proportionally, the smallest companies endured more than five times the administrative burden per employee than larger firms did. These costs were perceived as growing in most countries. Results also showed that a company's administrative costs varied depending upon its economic activity with the hardest hit being in the service sector. These variations indicate the substantial potential gains from simplifying and improving administrative regulatory systems and the regulatory capacities of government.

Moreover, the regulatory impact and the perceived quality of the regulations and the administrative framework varied according to countries and policy areas. This suggests that important room for manoeuvre exist in the search for efficiency and innovation, as well as for benchmarking and sharing of practices. It also confirms the basic element of OECD work on regulatory policies: governments can launch initiatives and develop practices and tools for high quality regulation and formalities which address regulatory objectives *and at the same* time reduce administrative burdens.

The findings point toward the need to a more detailed study to detect OECD-governments good regulatory practices for reducing administrative burdens and setting up conductive and SME-friendly regulatory environments. Such a project would in particular be supportive to the recommendations of the Bologna Charter. In the Charter OECD countries asked for further work on benchmarking the effectiveness of SME policies and regulatory environment and performance, based on data and statistics collected at national and sub-national level.[24]

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Appendix I

Detailed description and results of the survey

This appendix provides a more detailed description of the methodology and the main findings of the OECD survey. It refers to the detailed results from individual countries.

1. Survey methodology

1.1. *The objectives*

Mandated by the OECD's Working Party on Regulatory Management and Reform, the Secretariat developed a business survey in 1998 to help OECD countries gather important information about the cost and quality of regulations and their administration. The purpose was to enable participating governments to focus on areas of perceived weakness and investigate strategies to improve the quality of regulations and formalities. The survey was designed as a contribution to the development of comparative qualitative and quantitative indicators of key aspects of national regulatory and administrative systems. A key dimension of the survey concerned the comparability of results: comparability between policy areas, firm sizes, and economic sectors within a country, and comparability of results between different participating countries.

1.2. *The scope of the survey*

The survey studied the combined impact of regulations from all levels of government – local, regional, national, and international. It examined three areas of regulation: tax regulations, employment regulations, and environment regulations. The definitions used in the survey were:

– **Employment regulations**: These include hiring and firing employees, complying with health and safety standards, workers' rights, consulting with worker councils or unions, statistical reporting of employment-related data, administering employment-related or payroll taxes, social security and pensions, or other mandatory employee benefits (*e.g.* maternity leave, sick leave).

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– **Environmental regulations**: These include licences, permits, planning and environmental impact assessments; complying with emission/discharge and hazardous substance requirements, process or product quality standards, pollution control and product regulations; environmental reporting and testing, record-keeping and day-to-day administrative requirements related to the environment, such as environmental levies and taxes; eco-labelling of products or processes.

– **Tax regulations**: These include business profits tax/corporate income tax, other taxes on capital and assets (*e.g.* dividend tax, property tax), sales taxes (*e.g.* VAT, general sales taxes), and tax deduction requests (such as PAYE income taxes).

These areas were chosen because they consistently rank as the major areas of regulatory concern in country and international business surveys and because they impose direct compliance burdens that can easily be measured by business, as previous studies had indicated.[25]

The survey was designed for use in any OECD country. It was implemented in 11 countries (Australia, Austria, Belgium, Finland, Iceland, Mexico, Norway, New Zealand, Portugal, Spain, and, Sweden) between April 1998 and March 1999 (Table 1 of the main report). Quantitative data from Mexico were not used in the final results, though, due to quality problems. This report reviews the findings of these 11 countries. Further detailed results are available from individual country reports provided by OECD to the countries that participated.[26]

1.3. T*he* Q*uestionnaire*

The survey was developed in several stages, from June 1995 to December 1997 under the supervision of the OECD Working Party on Regulatory Management and Reform. It benefited from the assistance of other OECD bodies, World Bank experts and external consultants. The draft questionnaire was piloted in four countries (UK, Sweden, Canada and Mexico), and amended in the light of the findings from the pilot.

The questionnaire was designed for use in a postal survey. Three model questionnaires were prepared, one for each of the three areas of regulatory policy. Each company in the sample was sent only one questionnaire (tax *or* employment *or* environment). Each questionnaire was divided into four sections. The first section contained questions classifying the firm, such as: the number of employees, turnover, and economic sector. The second section concerned perceptions of regulatory quality, business participation in the process of developing new regulations, and the level of compliance.[27] Questions on the quality of administration of regulations, including perceptions of the quality of contacts when obtaining information or decisions, were dealt with in the third section. The fourth and final section

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focused on the administrative cost of compliance with regulations. They covered costs related to the administrative compliance procedures undertaken within the firm, as well as outside assistance hired by the firm, such as contracting out compliance responsibilities. A copy of the employment questionnaire is attached in Appendix III.[28]

1.4. *The sample*

The survey focused on small and medium-sized enterprises (SMEs). This is partly because small businesses are more exposed and more sensitive to regulatory burdens in general and formalities in particular. The pilot survey also found that it was more difficult for large firms to answer the questions, since direct or single source information was rarely available. In contrast, an entrepreneur or a manager assigned to answering the survey is more likely to have a good overall perception of the quality and costs of regulations and formalities in an SME than in a large firm.

Gallup France developed a statistical protocol so that the results could be compared across countries, policy areas and firms sizes. Two sample sizes were proposed to participating countries: a recommended survey size based on at least 180 questionnaires answered per policy area (540 answers per country) and a "small size" sample, with at least 100 questionnaires answered per policy area (*i.e.* 300 answers per country). The main difference is the quality of the statistical estimates for each stratum (by size and economic sector). Nevertheless comparison of national results obtained with the optional sample would be possible with those obtained from one country using the recommended sample.

The data was classified by size of firm and economic sector. SMEs were divided into three size categories: 1 to 19 employees, 20 to 49 employees, and 50 to 499 employees.[29] This distinction was made on the assumption that the person responsible for paperwork in the smallest SMEs is the entrepreneur or general manager.[30] In medium-scale SMEs, a single employee is likely to be responsible. In a large SME, there is more likely to be separate units responsible for tax, employment, and environmental regulatory compliance.

The protocol ensured that there were sufficient numbers of manufacturing and service sector companies in the sample to enable the analysis to examine potential differences between these sectors. However, provision was also made to split the service sector companies into two further groups: services with impacts on the environment (such as transport companies); and "professional" services which covered services without important impacts on the environment. It included activities in which intellectual capital plays a vital role, such as business service companies (see Appendix VIII). This decision was taken because in the pilot stage, it became apparent that these two sub-groups could have very different

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experiences in relation to environmental regulations. The subdivision is also based on the assumption that "professional services" are less linked to a regulatory environment, and thus can be more independent from regulatory burdens, as they can provide their services from a different jurisdiction.

1.5. The fieldwork

The survey was conducted as a partnership between the Secretariat, the participating governments and business associations (Chambers of Commerce and Industry or employer's organisations). In most countries, a research unit or specialist consultant was also involved.

Each partner was independently responsible for a specific task, such as preparing the questionnaires, translating the questionnaires, drawing firms at random from an official business register, sending and entering data, etc. The OECD Secretariat was responsible for preparing the framework for the survey and analysing the final data, as well as co-ordinating and providing a help desk for participants.

The questionnaires were translated and adapted to the specific features of each country by their respective government or business association, taking care to ensure that the data would be sufficiently comparable for benchmarking purposes.

The survey was designed to be sent to SMEs by mail. However, because of the specific nature of their business cultures and firms, and based on the experience of previous surveys, Spain and Mexico decided to conduct the survey by telephone. Some care should therefore be taken in the interpretation of the results from Spain and Mexico.

1.6. The response rates and consistency of results

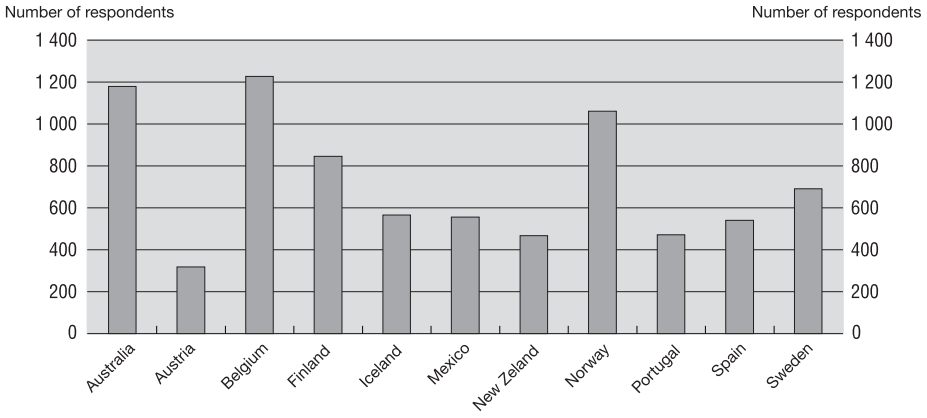
A total of 7 859 SMEs across the 11 countries responded to the survey.

The number of responses was the highest in Belgium and Australia, and the lowest in Austria (see Figure 19). However, in terms of average response rate, the survey received almost 40% (see Table 1 of the main report), though with some variations across the countries. Australia had a 78% response rate but Mexico and Portugal achieved only 18%. The response rate also varied between one policy area to another. In Australia, Iceland, and New Zealand, the response rate to the questionnaire on environment was lower than for the other two regulatory areas. All countries obtained at least 300 answered questionnaires, which assured adequate comparability among them.

– The survey was based on a random sample of companies. In view of this and of the scale of response achieved, the results can therefore be extended to all firms with the same characteristics in each of the countries taking part.

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Figure 19. **Survey sample sizes, by country**[31]



Source: OECD.

– To evaluate whether a non-response biases exists related to the subject of the survey, a follow-up post card was distributed including three simple questions targeting non-respondents. Non-respondents were asked for their reason for not responding and, in addition, were asked their perception of administrative compliance costs relative to other firms in their industry. Only three countries participated in the post card analysis: Australia, Iceland, and Mexico.

– In Australia, most non-respondents placed themselves as having relatively low or moderate administrative compliance costs. Length of the questionnaire, lack of interest in the subject, and a difficulty summarising compliance costs were the primary reasons given for non-responses.

– In Iceland, most non-responders either had no opinion of their costs or placed themselves at a moderate level. Non-respondents described the survey as too complex and compliance costs as too difficult to summarise. A lack of time to complete the survey was also a common response.

– In Mexico, most non-respondents were unable to evaluate their administrative costs but, of those that were able to do so, the majority placed themselves at a moderate level. In addition, the vast majority of non-respondents stated either that they did not answer opinion polls by telephone, were not interested in the subject, or were too busy to respond.

The response rate for individual questions in the employment and tax questionnaires was generally acceptable. However, there was a high non-response rate for certain questions in the environment questionnaire, especially among firms in

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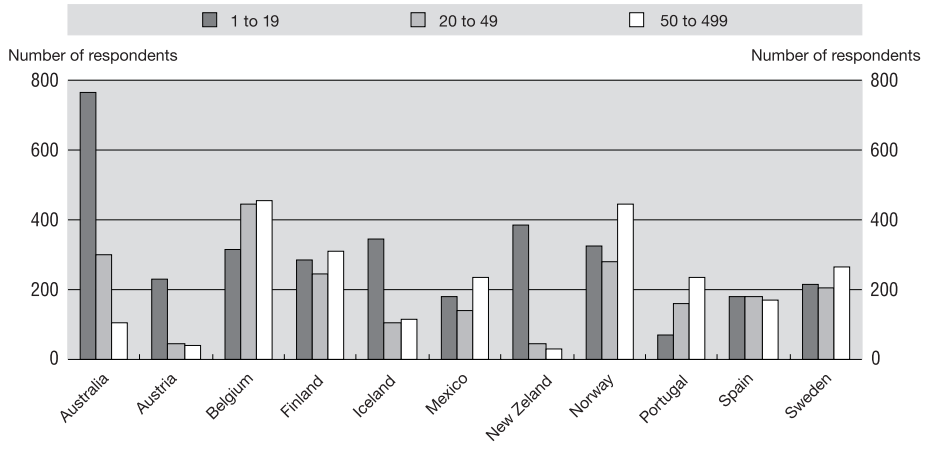
the "professional" services sector. This may be because environmental regulations and formalities do not affect them directly. Results for this sector should therefore be interpreted with caution. In addition, confidence intervals for all qualitative questions show that confidence levels vary by country but are acceptable for all. An analysis of non-response/no opinion rates by country is presented in Appendix V.

For qualitative questions, no opinion responses were treated as non-responses and, therefore, are not included in the analysis.

A note of caution is necessary concerning the response rates at more detailed levels. In some of the strata in certain countries, the small number of responses increase the variance of quantitative estimates. However, in the analysis, the quantitative results were weighted to reflect the structure of companies in each country, in terms of size and sector. The sample achieved in terms of company size and economic sector is illustrated in Figures 20 and 21.

Questions were also asked to ascertain the performance of the companies in the sample at the time of the survey, in terms of market share, profits, employment, capital investment, new product launches, and export sales (see Figure 22). With the exception of Australia, most of the respondents in the survey indicated an improved business environment compared to two years ago. This reduces the traditional bias created by the effects of the business cycle on the views of SMEs on governmental affairs. It should be noted that Spain respondents reported a high level of economic performance, which might be related to the relative good opinion of SMEs on the regulatory and administrative environments of that country.

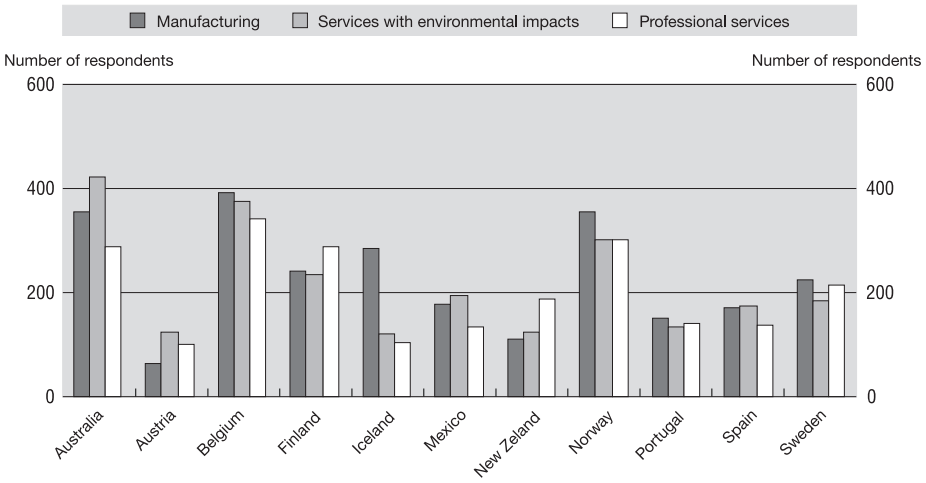
Figure 20. **Survey sample sizes, by size of firm**



Source: OECD.

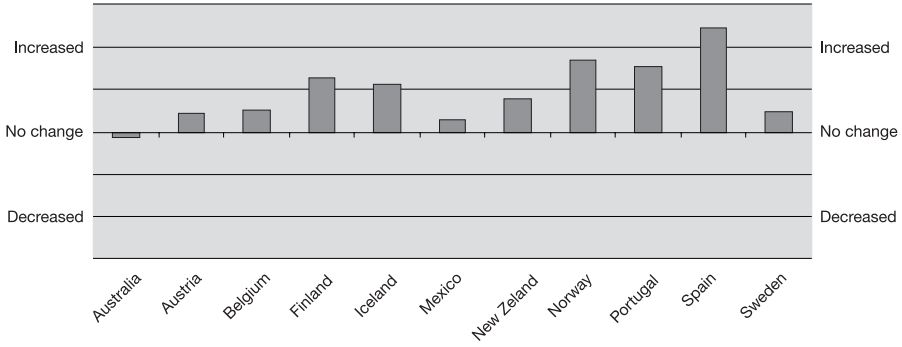
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Figure 21. **Survey sample sizes, by economic sector**



Source: OECD.

Figure 22. **Indicator of the firm's economic performance two years prior to the survey**



: This indicator is based on Question A6 of the questionnaire: "Over the past two years, what has happened to the performance of your business in the following areas: market share, profits, employment, capital investment, new product/service launches."
Source: OECD.

Responses from these SMEs also indicated that the vast majority (88%) of firms had been operating for five years or more and only approximately 13% of the firms surveyed had full or partial foreign ownership. On the latter issue, Belgium had the most important percentage of partial foreign ownership (23%).

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2. The administrative cost of compliance

2.1. *What is meant by administrative compliance costs?*

Administrative compliance costs are defined as the formalities and paperwork that a business carries out, or pays someone to carry out on their behalf, to comply with tax, employment, and environmental regulations. They include all the time and resources spent by owners, managers, staff or hired experts to understand regulations, collect, plan, process, report, retain data and fill in forms required by governments. They include the administration of taxes, but *not* the actual amount of money paid as taxes. They also include the costs of compliance with regulations at all levels, no matter what their origin (local, provincial, national, or international). However, the administrative compliance costs do *not* include capital expenditures or payments made to purchase machinery or equipment.

2.2. *The approach taken by the survey*

Companies were asked to estimate the administrative compliance costs incurred by their business. This was done in stages.

In the first stage, companies were asked to estimate the average number of hours spent per month by staff and management in the company complying with specific areas of regulation (tax, employment, or the environment). An annual estimate of internal hours spent per company was subsequently calculated. Hourly labour costs in the business service sector were then used to produce an internal cost per year (see Appendix IV on external estimates used in this report). This cost was then extrapolated (weighted) to reflect all SMEs in the country, taking into account the structure of SMEs in each country in terms of size of company and sector of activity.

In the second stage, companies were asked to estimate the average cost per month of hiring outside services to comply with an area of regulation. This included all expenditures on external services such as accountants, lawyers, and consultants, for the purpose of regulatory compliance. This was again extrapolated (weighted) to reflect the structure of SMEs in each country.

In the third stage, an estimate of total compliance costs was calculated by adding internal and external costs in the three regulatory areas. This figure therefore represents the resources (expressed in monetary terms) used by companies to comply with tax, employment, and environmental regulations, from an administrative standpoint.

2.3. *Main findings*

In total, SMEs spent an average of US$27 500 per year complying with tax, employment, and environmental regulations. This equated to an average cost of US$4 000 per employee (see Figures 1 and 2 of the main report). However, there

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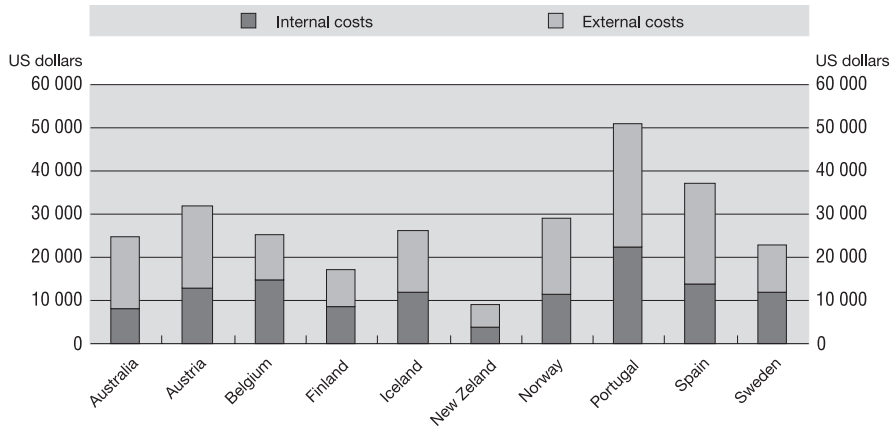
were major differences in total compliance costs per company between countries. Estimates varied from Portugal (US$51 100) at the one extreme to New Zealand (US$8 900) at the other (see Figure 18).[32]

Companies used a mix of internal and external resources to comply with regulations. The costs in Figure 23 include the time spent by managers and staff within the business and the cost of hiring external advice and assistance. Approximately 44% of these costs were internal to the company, and around 56% were external.

In most countries, the costs of hiring external advice and assistance (accountants, lawyers, consultants, etc) to help comply with tax, employment, and environmental regulations exceeded the cost of internal management and staff time spent on compliance. Only in Sweden and Belgium this was not the case. In Sweden and Finland, internal and external costs were roughly equal, whereas in Belgium the cost of internal time (59%) exceeded the cost of assistance purchased from outside (41%) (see Figure 24). In general, the ratio between internal and external expenditures was approximately equal among the three regulatory areas. Exceptions to this existed in Portugal under employment regulations and in Sweden under environment regulations.

Total compliance costs equated to around 4% of the turnover of companies in the 10 countries surveyed (see Figure 25). Average compliance costs as a proportion of total turnover also differed between countries. In Norway (8%), Belgium (6.2%) and Austria (6.1%), the level of compliance costs, as a percentage of sales turnover was particularly high. In Australia (1.1%) and Spain (0.7%), on the other

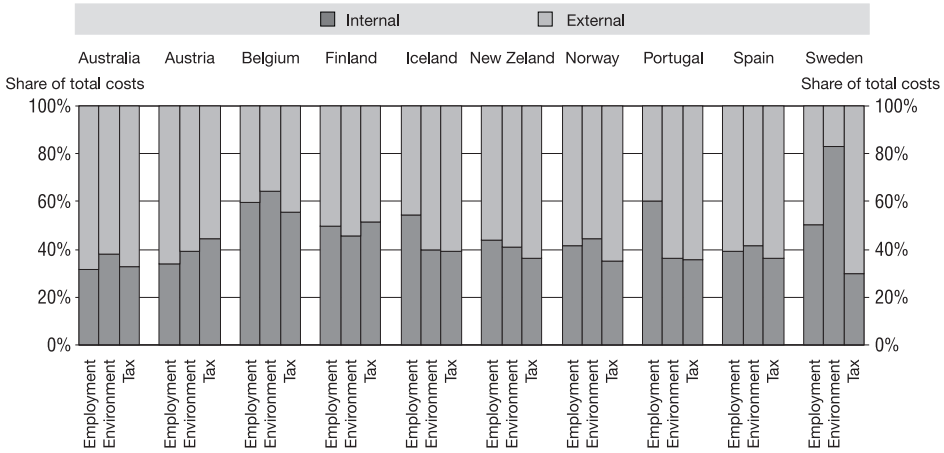
Figure 23. **Total compliance costs – average per firm per country**



Note: : Data for Mexico are not available.
Source: OECD.

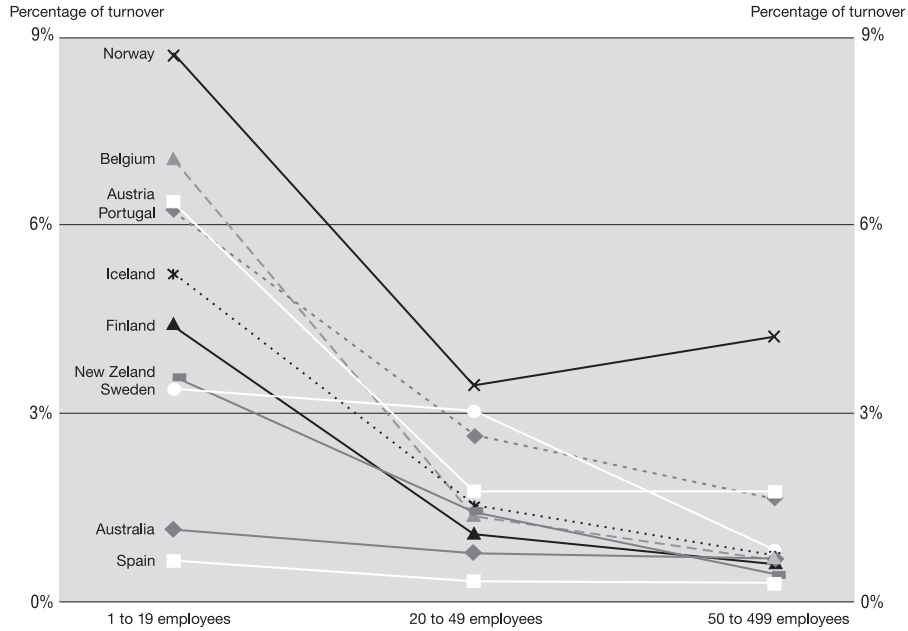
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Figure 24. **Ratio of internal to external compliance costs, by policy area and by country**



Note: : Data for Mexico are not available.
Source: OECD.

Figure 25. **Total compliance costs as a percentage of turnover by firm size**



Note: : Data for Mexico are not available.
Source: OECD.

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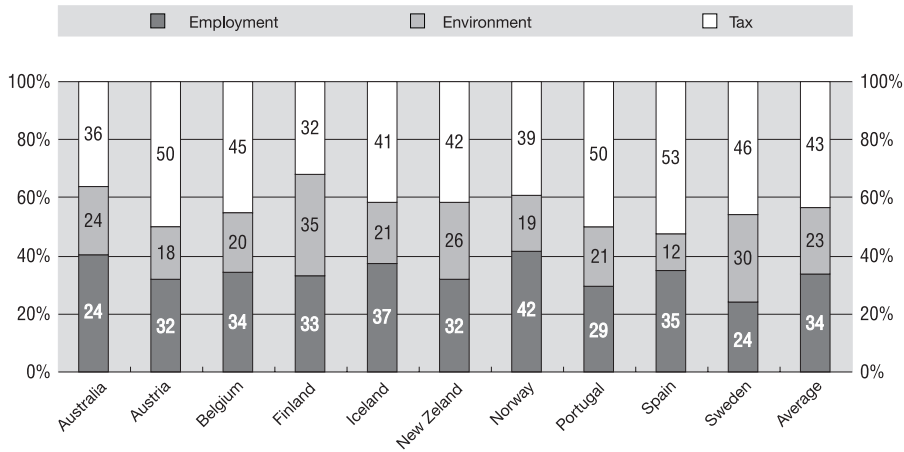
hand, it was much lower. Moreover, there were differences between countries for different sizes of company. For most countries, there was a "regressive effect" between the cost of compliance and the size of the company; indicating an economy of scale with regards to regulation compliance.

The majority of these costs were spent complying with tax (46%) and employment (35%) regulations. On average, the amount spent complying with environmental regulations was lower (19%) (see Figure 26). In most countries, tax and employment regulations constituted the majority of compliance costs (around 80%). Only two countries differed from this pattern. In Sweden, environmental compliance costs were estimated to be higher than employment compliance costs, but tax was still the largest cost (at 46%). In Finland, total compliance costs were split more or less evenly between the three areas of tax, employment, and environment.

2.3.1. D*ifferences between companies of different sizes*

Total costs varied significantly between SMEs of different sizes. Compliance costs in total were higher for larger companies, but they were *proportionately* much higher for smaller companies when calculated per employee. Indeed, costs per employee for small SMEs were over five times higher than for large SMEs (see Figure 4 part of the main report):

Figure 26. **Share of total costs, by regulatory area by country**



Note: : Data for Mexico are not available.
Source: OECD.

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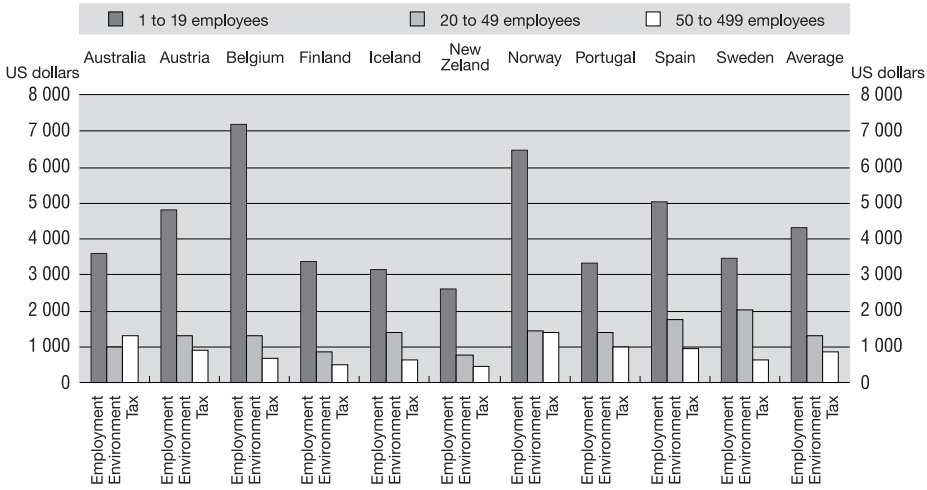
– Small SMEs (with 1-19 employees) spent an average of US$25 000 per company or US$4 600 per employee.
– Medium-scale SMEs (with 20-49 employees) spent an average of US$45 000 per company or US$1 500 per employee.
– Large SMEs (with 50-499 employees) spent an average of US$96 000 per company or US$900 per employee.

There were also differences between countries (see Figure 27).[33] In Belgium and Norway, small SMEs spent more than twice as much per employee as businesses of similar size in New Zealand. In Norway large SMEs spent nearly three times as much per employee as large SMEs in Finland and New Zealand.

2.3.2. *Differences between companies in different sectors*

On average across the participating countries, manufacturing and service companies spent broadly similar amounts on administrative compliance costs. If, however, companies are split in the service sector into those with an environmental impact (such as transport and construction companies) and those likely to have a low environmental impact, primarily professional services (such as business service companies), a different picture emerges in many countries. Service companies with an environmental impact spent more than manufacturing companies complying with regulations (see Figure 28). Exceptions to this were Austria, Bel-

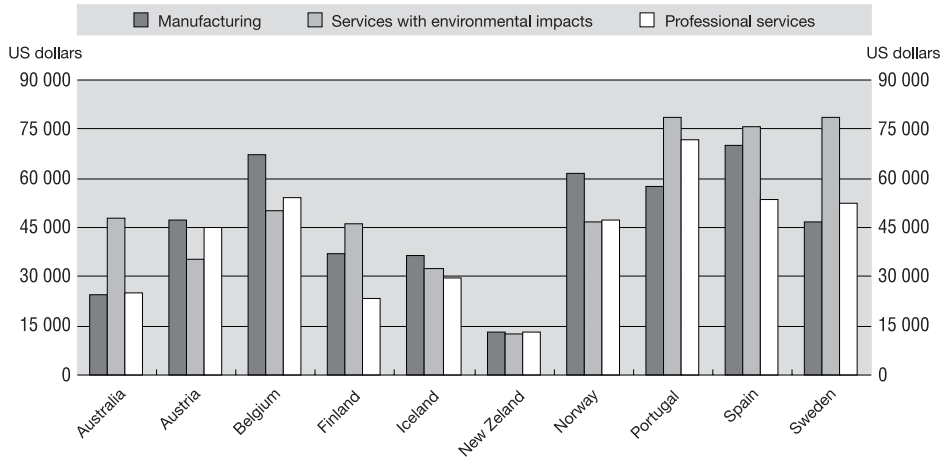
Figure 27. **Annual administrative compliance costs – average per employee by company size and by country**



Note: Data for Mexico are not available.
Source: OECD.

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Figure 28. **Annual administrative compliance costs – average per firm by economic sector and country**



Note: : Data for Mexico are not available.
Source: OECD.

gium, Iceland, and Norway, where manufacturing companies spent more than all types of the service sector companies; and New Zealand, where the costs seemed to be more evenly distributed between the three sectors.

2.3.3. *Company perceptions of changes in administrative compliance costs*

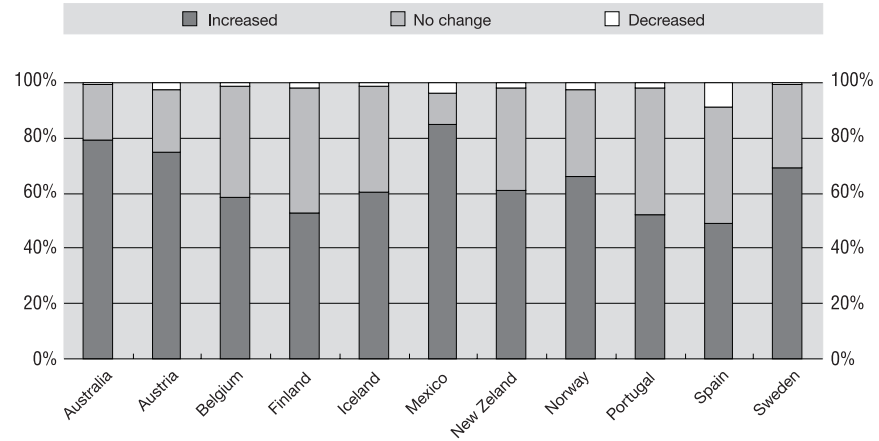
The majority of companies (around 60%) believed that administrative compliance costs had increased over the last two years. Around a third believed they had stayed the same. Virtually no companies believed that they had decreased. This view was held in all 11 countries surveyed. Companies of different sizes and in different sectors also shared it. The detailed findings for each area of regulation are shown in Figures 29, 30 and 31.

Companies in general believed that the main reason for increases in tax and employment administrative compliance costs was the increase in complexity of existing regulations. For environmental regulations, the introduction of new regulations and an increase in regulatory compliance, as well as increasing complexity, were seen as important drivers of increased compliance costs. The detailed findings for each area of regulation are shown in Figure 32.

This view was generally common across most countries (see Figure 33 and Table 2 in Appendix V). Three exceptions may be noted, though. Spain's SMEs considered the introduction of new regulations as the most important cause of

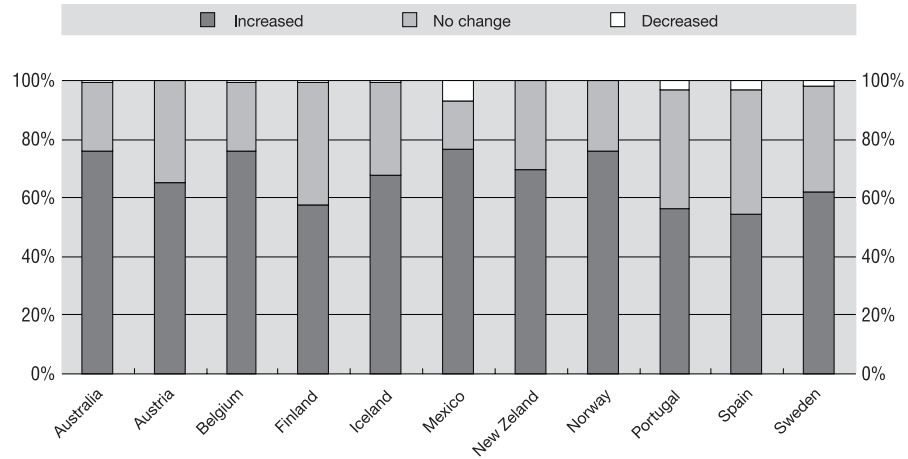
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Figure 29. **Perceived changes in tax compliance costs over the two years previous to the time of the survey**



Note: : No account is taken of no response and no opinion responses.
Source: OECD.

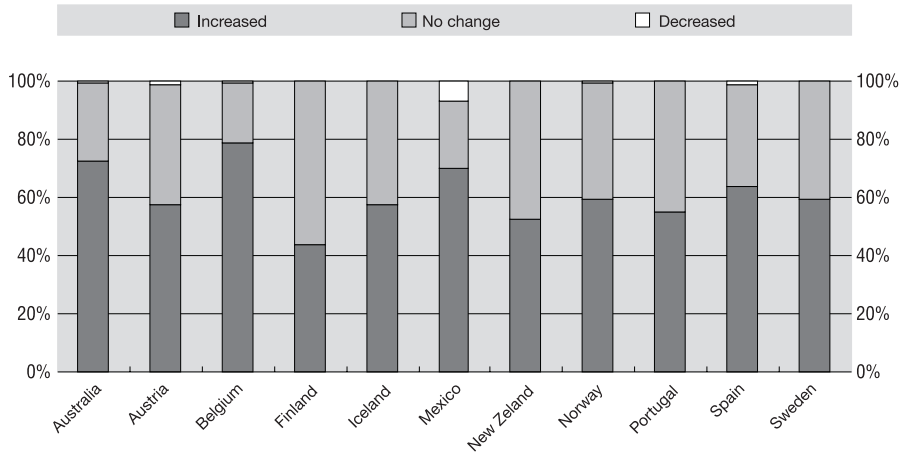
Figure 30. **Perceived changes in employment compliance costs over the two years previous to the time of the survey**



Note: : No account is taken of no response and no opinion responses.
Source: OECD.

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Figure 31. **Perceived changes in environmental compliance costs over the two years previous to the time of the survey**



Note: : No account is taken of no response and no opinion.
Source: OECD.

increases in the cost of complying in particular in the case of environmental regulations. Tax regulations in Sweden were another exception. Again, the introduction of new regulations was considered as the most important driver of compliance cost increases. Also, the Australian SMEs mentioned increase in the complexity of existing regulations a reason for the rise of compliance costs. This could be related to the specific regulatory context occurring at the time of the survey's implementation in this country, when a major tax reform was debated.

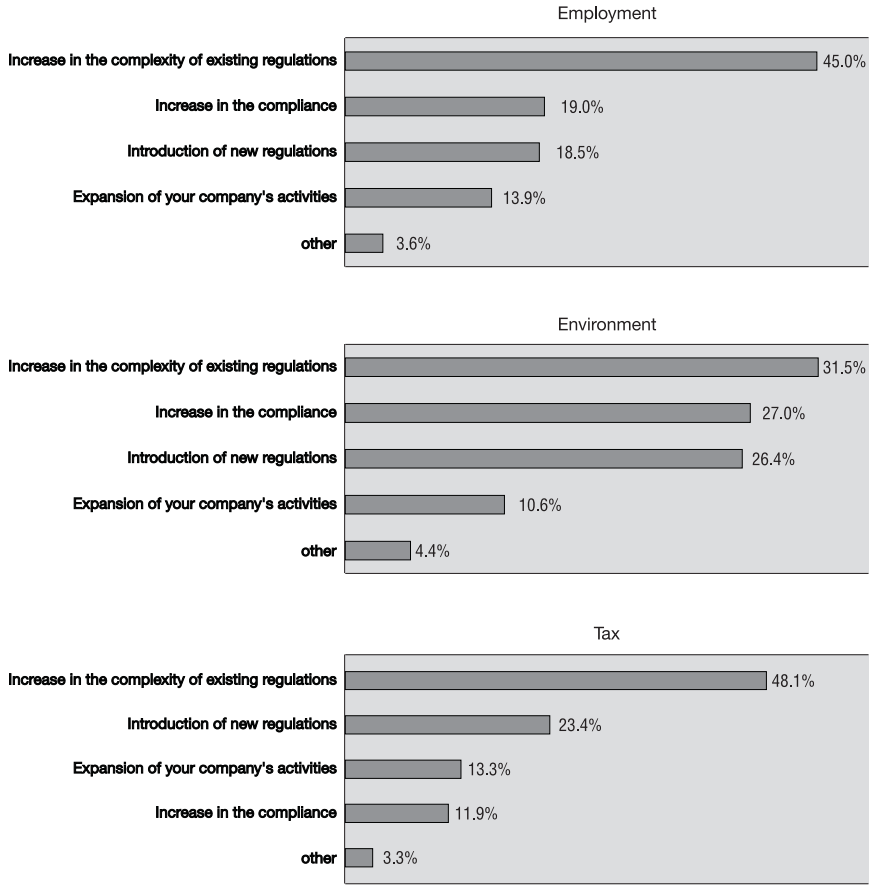
2.3.4. *The Economy-Wide Impact of administrative compliance costs*

The survey showed that a number of OECD Member countries committed a significant proportion of their economic resources to complying with administrative regulations. It was also clear from the study that countries with similar levels of wealth, environmental and labour protection invested different amounts of their national wealth in complying with administrative regulations (see Table 2).

Based on the data gathered in the survey, it was estimated that the administrative compliance costs for tax, environment, and employment regulations incurred by SMEs represented 1-6% of GDP. However, if the business sector GDP – a more directly relevant indicator for the population of SMEs examined in the survey – is used then the administrative compliance costs average amounted to around 4% of the Business Sector's GDP (BGDP), across the countries surveyed.

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Figure 32. **Main reasons for the increase in the compliance costs with regulations – average all countries**



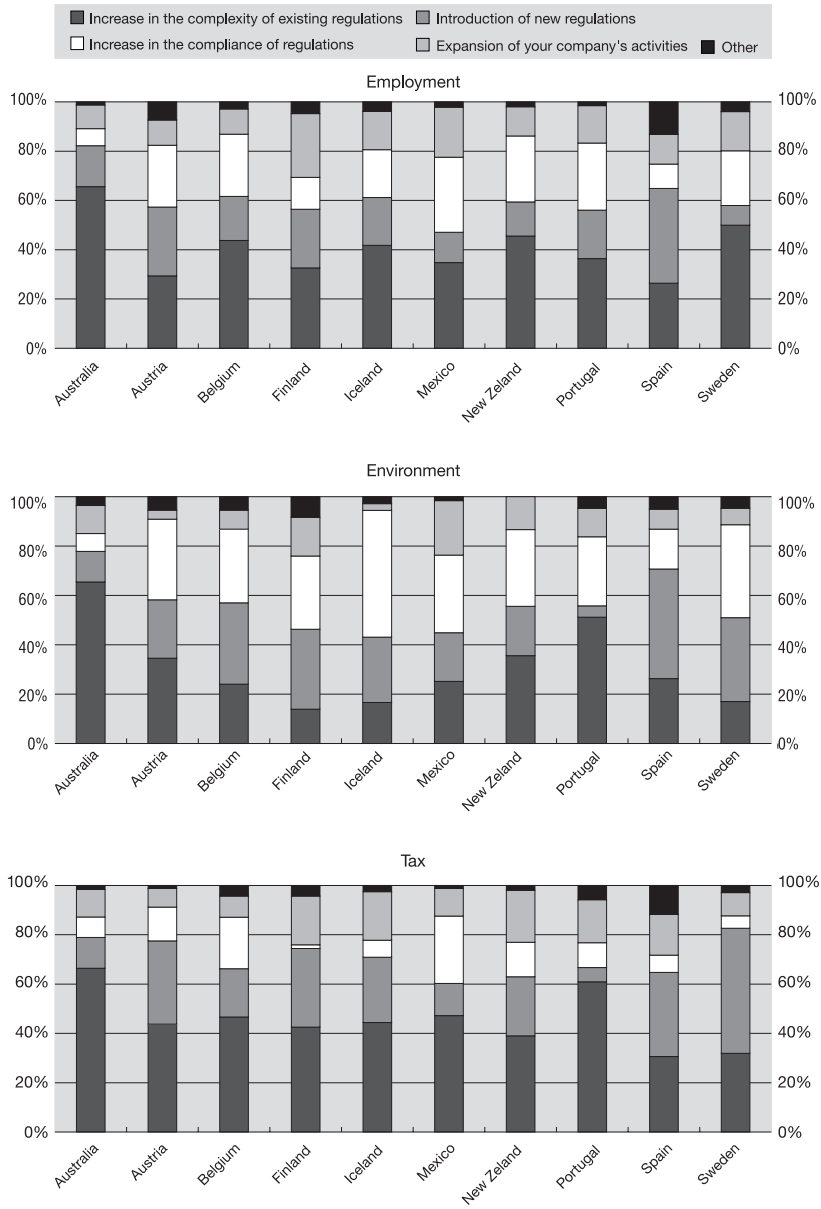
Source: OECD.

The estimated level differed by country. It was higher in Spain (7.2% of BGDP) and Portugal (7.1% of BSGDP) and lower in Iceland (1.9%) and Finland (1.4%). This is undoubtedly an underestimate of the total economic cost of government regulations as indicated in the main report.

It is interesting to note that the external provision of regulatory compliance services to businesses had become an economic activity in its own right. According to Table 2, companies needed to buy services from firms providing help to comply administratively with regulations (*e.g.* accountant, lawyers, etc.), which in some countries can represent a fairly important "sector". For instance in the case

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Figure 33. **Main reasons for the increase in the compliance costs with regulations, by country**



Note: : No account is taken of no response and no opinion responses.
Source: OECD.

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of Spain, as deducted from column 3 of Table 2, the "industry" sold to SMEs around 24 billion dollars per year of "regulatory-oriented services" to SMEs. Whilst such activity may stimulate growth and create jobs, there may be more productive ways in which companies' resources could be invested.

Table 2. **Estimated annual administrative compliance costs in US dollars for all firms with 1 to 499 employees, 1998**

	Compliance costs per country			Country total as % of GDP	Country total as % of Business GDP (BGDP)
	Internal costs (millions)	External costs (millions)	Total per country (millions)		
Australia	4 282	8 534	12 816	2.9	3.8
Austria	2 777	4 094	6 870	3.5	4.7
Belgium	2 527	1 776	4 303	1.8	2.3
Finland	554	579	1 132	1.0	1.4
Iceland	42	52	95	1.3	1.9
Mexico	n.a	n.a	n.a	n.a	n.a
New Zealand	698	1 042	1 740	2.6	3.5
Norway	1 359	2 075	3 434	2.8	4.9
Portugal	3 455	4 398	7 853	5.1	7.1
Spain	14 660	24 091	38 751	5.6	7.2
Sweden	2 263	2 131	4 394	2.3	3.3

1. See Appendix IV for external data used in estimations.
2. Values were adjusted by purchasing power parity.
3. Business GDP includes sole proprietor companies and companies employing 1 or more employees.

3. Indirect Costs for companies

3.1. *Approach taken by the survey*

The primary purpose of the survey was to quantify direct compliance costs, and to examine the views of companies with regard to the quality of regulations and their administration. Indirect costs were not, therefore explored in detail. Nevertheless, the survey examined some of the indirect costs created by employment regulations.

In the first question, companies were asked to consider the impact of compliance with *all* employment regulations on their business. Based on evidence from earlier studies, a list of potential business problems was presented to respondents.[34] For each, respondents were asked to assess whether compliance with all employment regulations had created that problem for them, and if so, the relative impact of it on their business (on a scale of 1-5 where 1 equals low impact and 5 equals high impact). Further to this, respondents were asked to evaluate the effect of compliance cost on hiring workers.

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The findings from the survey, therefore, provided a number of directional indicators of the indirect costs associated with compliance to employment regulations based on the opinions of senior managers in SMEs. The survey did not cover all, or even most of the indirect costs associated with regulatory compliance.

3.2. *Main findings*

The survey showed that around 80% of SMEs believed that compliance with employment regulations has some impact on their business and its performance (see Figure 12 of the main report). The SMEs also believed that employment regulations have a significant impact (medium or high) in the following areas:

– They increase non-wage labour costs (61% of companies).

– They create difficulties in making staff reductions (57% of companies).

– They create difficulties in hiring new staff (57% of companies).

Companies in most of the countries surveyed believed that compliance with employment regulations induced indirect costs for them. However, there are some differences in the general pattern. Fewer companies in Spain, Iceland, and Norway believed that compliance with employment regulations created significant indirect costs for them. In contrast, more companies in Sweden and Mexico believed that compliance with employment regulations created significant indirect costs for them.

Managers of SMEs believed that compliance with employment regulations creates indirect costs for companies of all types, across the 11 countries surveyed (see Figure 34). Results were comparable for small, medium-scale and large SMEs as well as for companies in manufacturing and service sectors.

A large portion of SMEs believed that the compliance costs of employment regulation affected personnel management in their company (see Figure 35). Even though the perceived effects varied considerably from country to country the findings indicated that regulatory compliance costs gave SMEs an incentive to substitute full time workers with temporary workers. The survey data could not say whether this in itself had a negative employment impact or if this effect was balanced by higher regulatory benefits.

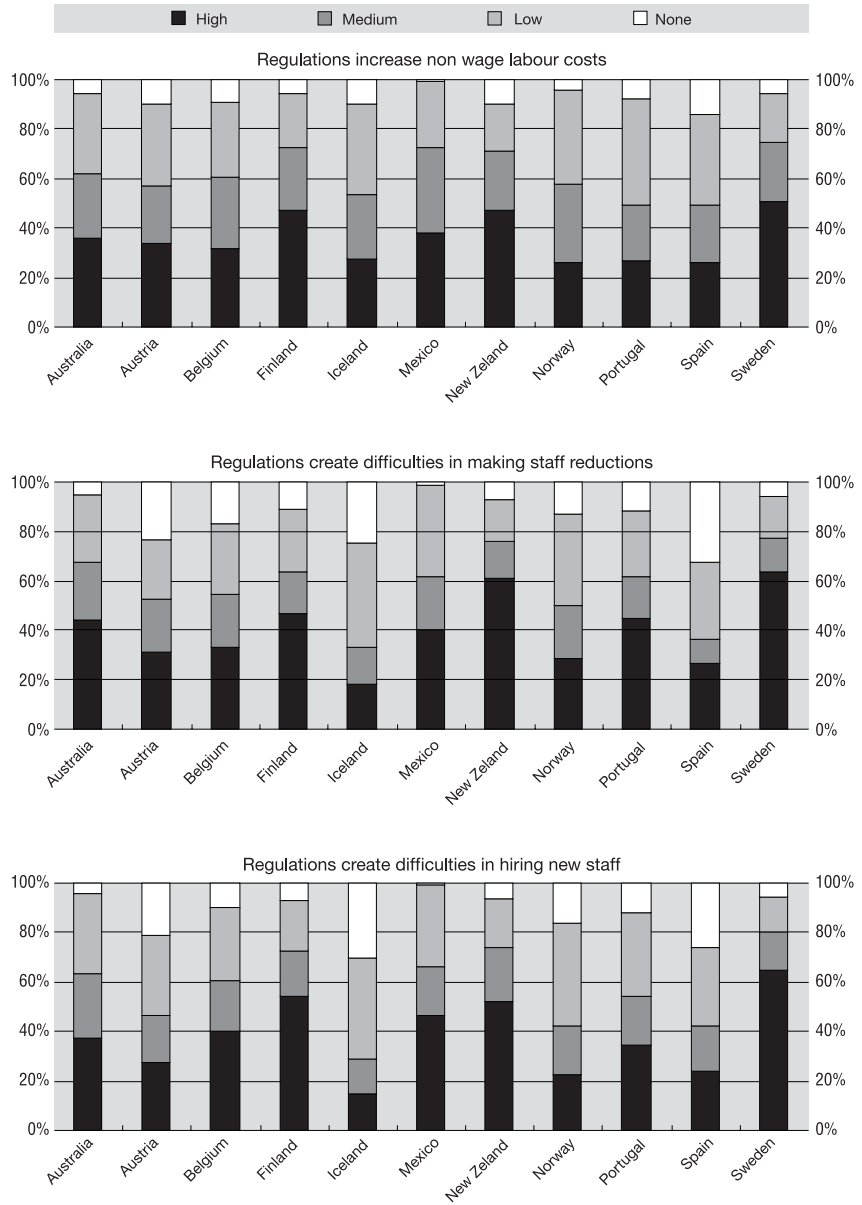
4. The quality of regulations

4.1. *The approach taken by the survey*

Comparing businesses' opinions of their regulatory frameworks is difficult, as there is no directly controllable yardstick and thus an objective evaluation. Further to this, business incentives to exaggerate negative aspects of the quality of regulations are strong. Therefore, the relative level of satisfaction/dissatisfaction with different dimensions of regulatory quality can be of higher interest than the

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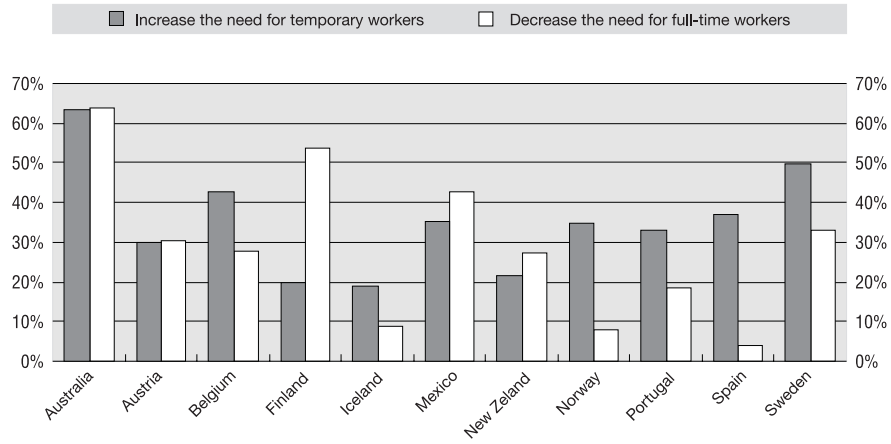
Figure 34. **Indirect costs created by employment regulations, by question and by country**



Source: OECD.

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Figure 35. **Perceived impact of employment regulations on the need for full-time workers and temporary workers**



Note: Scores correspond to the share of SMEs who agreed that as an effect of compliance costs of employment regulation, the need for temporary workers increased or increased substantially, and that the need for full-time workers decreased or decreased substantially.
Source: OECD.

absolute levels. With due care, interesting results can emerge from business surveys, as work from the World Bank has shown.[35] The OECD survey indicates significant differences between countries in terms of the way in which SMEs perceive the quality of regulations.

Companies were asked to assess a limited number of the "design features" of tax, employment, and environmental regulations in their country. They were given a series of statements with which they were asked to agree fully; agree mostly; disagree mostly; or disagree fully. They were also given the option of saying that they had no opinion.

The statements covered the following regulatory issues:

– Ease of understanding.

– Flexibility for companies to implement regulations in an efficient way.

– Predictability of changes.

– Simplicity in achieving objectives.

– Consistency between regulations.

– Possibility to comply fully despite the number of regulations.

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Companies were also asked their opinion about levels of compliance, and levels of consultation during the development of new regulations in their country.

4.2. *Main findings*

4.2.1. *The quality of regulations*

In aggregate, SMEs in the 11 countries surveyed were the most critical of the quality of tax and employment regulations in their countries. That is to say, more companies had negative opinions than positive opinions about the design of regulations in these two areas. In contrast, they were in general, less critical of the quality of environmental regulations (see Figure 13 of the main report). However, the picture that emerged from the survey is a complex one. It showed significant differences among questions and countries, and it may indicate areas and countries where improved practices could be found.

SMEs criticised ***tax regulations*** because: they were not flexible enough to be implemented efficiently by companies (78% of companies); did not achieve their objectives as simply as possible (76%); changes were not predictable (75%); were not easy to understand (70%), and, were not consistent with one another (67%).

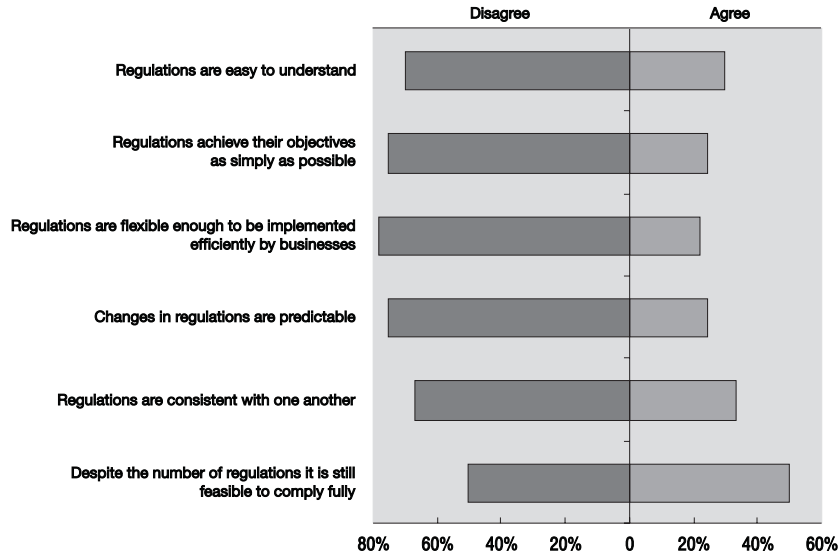
Figure 37 identifies the regulatory quality dimensions of tax regulations according to the questions to which each country's SMEs voiced the strongest rate of agreement and disagreement. It shows that SMEs in six out of the 11 countries considered lack of regulatory flexibility as the most problematic quality issue for tax regulation. On the other hand, SMEs in nine countries voiced strong agreement that "despite the number of regulations it is still feasible to comply fully". This indicates – although with the uncertainty mentioned above – that the level of tax regulation compliance was not strongly linked to the quality of the regulations.

Differences in terms of the way in which SMEs perceived the quality of tax regulations are shown in the Table 3 in the Appendix VII, and can be summarised as follows:

- Australia and Iceland expressed a high level of disagreement with the assumption that regulations achieve their objectives as simply as possible. 94% of firms had a negative opinion in Australia, and 60% in Iceland (the 60% in Iceland must be compared with the relatively positive opinion expressed by Icelandic firms).
- Mexico and Spain considered the changes in regulations as relatively unpredictable.
- 41% of the Portuguese SMEs and 32% of the Australian SMEs (this 32% must be compared with the relatively low level of positive opinion expressed by the Australian firms on the quality of tax regulations) agreed with the assumption that tax regulations are easy to understand.

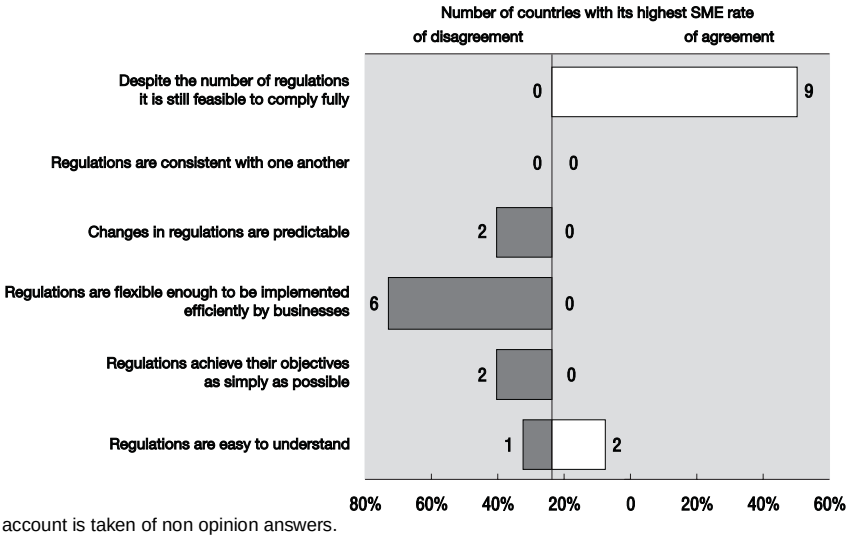
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Figure 36. **Quality of tax regulations – average all countries**



Source: OECD.

Figure 37. **Quality of tax regulations – Questions which received the highest rate of disagreement/agreement for each country**



1. No account is taken of non opinion answers.
2. Highest SME rate of disagreement or agreement corresponds to the questions in each country with the highest count of disagreement or agreement voiced by the country SMEs.

Source: OECD.

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E*mployment regulations* were criticised for similar reasons: they are not flexible enough to be efficiently implemented by companies (78% of companies), do not achieve their objectives as simply as possible (76%); changes are not predictable (75%); are not easy to understand (70%), and are not consistent with one another (67%).

Figure 39 identifies the questions answered with the highest rate of agreement or disagreement. As for tax regulations, the most strongly voiced critique is the lack of flexibility – six countries had its highest rate of disagreement answering to the question "regulations are flexible enough to be implemented efficiently by business". The highest rate of agreement referred to the feasibility to comply (six countries) and to the ease of understanding employment regulations (four countries). As for tax regulations, this implies that there is no strong linkage between the perceived quality of regulation and compliance.

Differences in terms of the way in which SMEs perceived the quality of employment regulations are shown in the Table 3 in the Appendix VII, and can be summarised as follows:

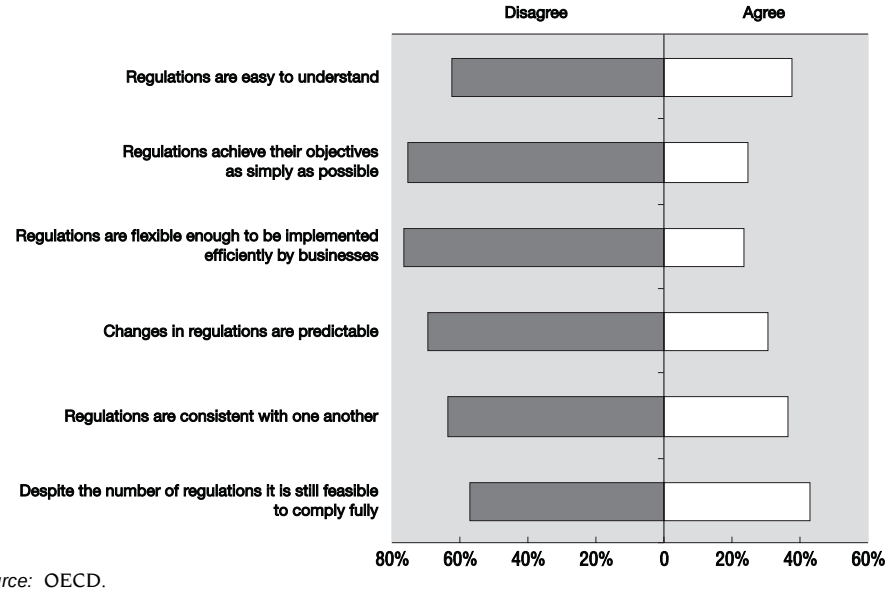
- Australia, Belgium and Sweden had a particularly negative opinion of the way regulations achieve their objectives, with more than 80% of SMEs who disagreed with the fact that objectives are achieved as simply as possible;
- Except for Austria, the countries expressed a relatively better opinion on the feasibility to comply with regulations. More than 50% of the firms agreed with this assumption in Spain, Finland, Iceland and Mexico, and more than one-third of the SMEs in Australia, Norway and New Zealand.
- SMEs in Mexico and Spain had a relatively better opinion on the quality of the regulations, although a large majority expressed a negative opinion on the predictability of changes in regulations.
- Employment regulations seemed easy to understand for around 50% of the firms in Spain, Iceland, Mexico and Portugal.

E*nvironmental regulations* were also criticised, but less heavily than tax and employment ones. Companies believed that regulations were not flexible enough to be implemented efficiently by companies (66% of companies); they changed unpredictably (65%); they did not achieve their objectives as simply as possible (61%); they were not easy to understand (56%); and, they were not consistent with one another (53%). As noted, a high rate of non-opinion and non-response in many countries to the questions in this section can indicate a lower level of concern with the quality of environmental regulations.

Looking at the questions to which the SMEs in each country expressed the strongest rate of agreement and/or disagreement, lack of flexibility once again seemed to be a grave concern (four countries). SMEs in seven out of the

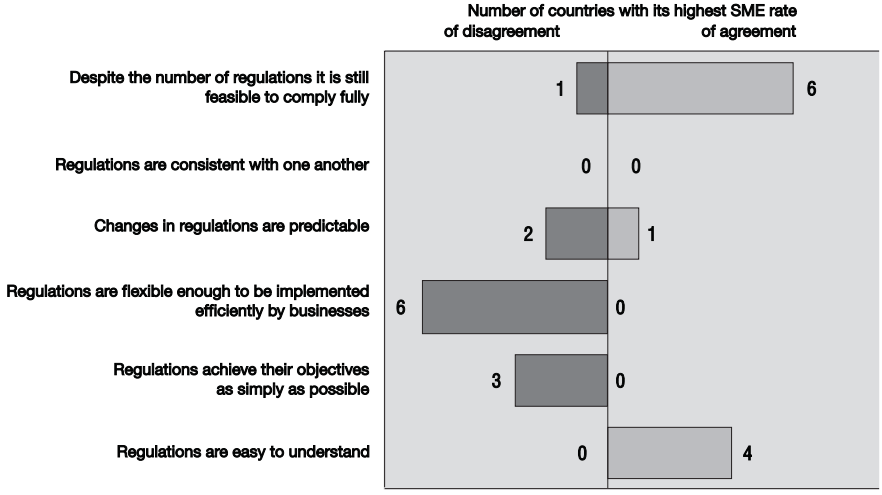
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Figure 38. **Quality of employment regulations – average all countries**



Source: OECD.

Figure 39. **Quality of employment regulations – Questions which received the highest rate of disagreement/agreement for each country**

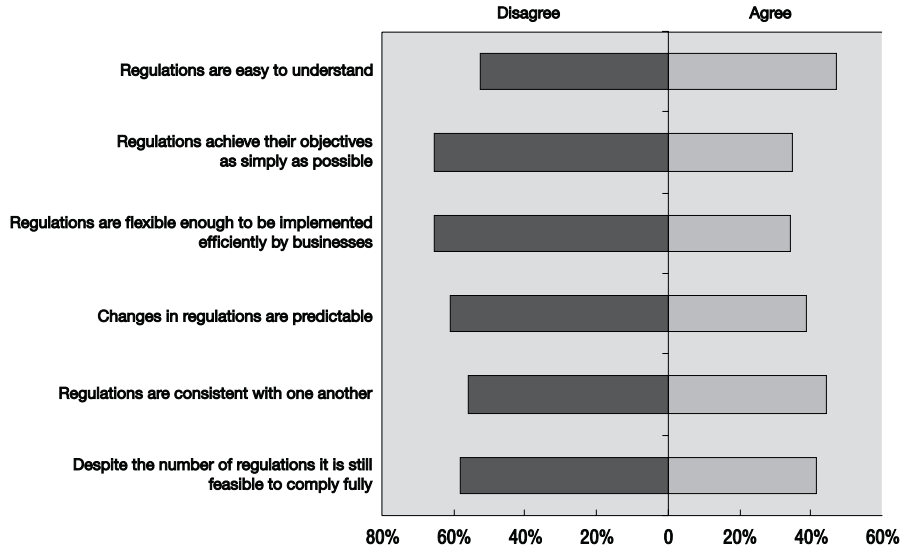


1. No account is taken of non-opinion answers.
2. Highest SME rate of disagreement or agreement corresponds to the questions in each country with the highest count of disagreement or agreement voiced by the country SMEs.

Source: OECD.

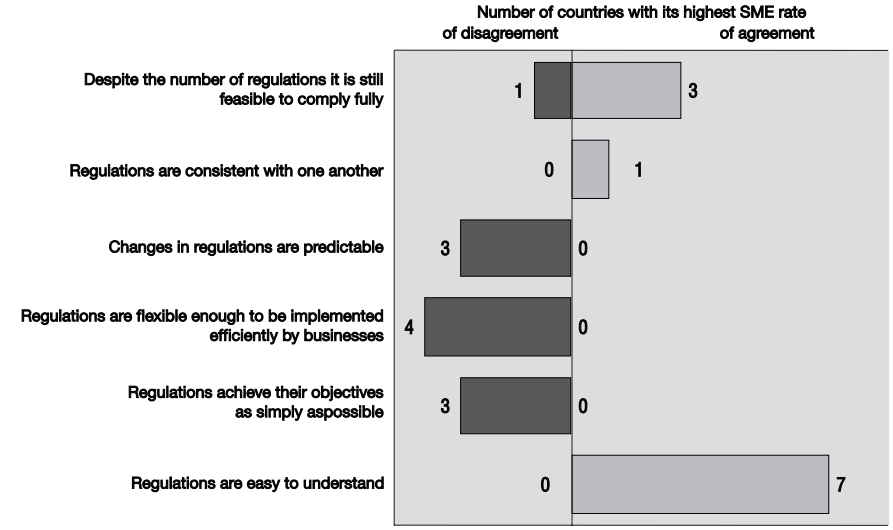
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Figure 40. **Quality of environment regulations – average all countries**



Note: : No account is taken of non-opinion answers.
Source: OECD.

Figure 41. **Quality of employment regulations – Questions which received the highest rate of disagreement/agreement for each country**



1. No account is taken of non opinion answers.
2. Highest SME rate of disagreement or agreement corresponds to the questions in each country with the highest count of disagreement or agreement voiced by the country SMEs.

Source: OECD.

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11 countries agreed most strongly to the question that regulation was easy to understand, whereas three countries had the highest agreement rate on the feasibility to comply with the regulation (see Figure 41). This could indicate different (and stronger) relation between perceived quality of the regulation and the level of compliance than indicated for tax and employment regulation.

The survey showed no significant country differences in the SMEs' answers to the quality of environmental regulations. Perceptions of the quality of regulations were shared across small, medium and large SMEs and across the service and manufacturing sectors (see Table 3 in Appendix VII).

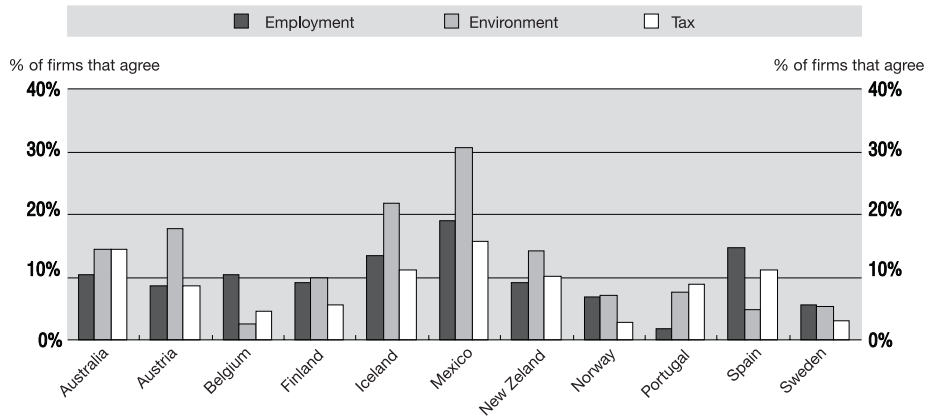
4.2.2. *The level of consultation*

SMEs in the countries surveyed perceived that the level of consultation during the process of developing new regulations was low. The vast majority of companies (77%) believed that businesses were *seldom* or *never* consulted. Only 9% of companies believed that businesses were *often* or *always* consulted (see Figure 42).

This pattern was consistent across all three areas of regulation (tax, employment, and environment). It was also consistent across countries.

Widespread consultation with all stakeholders is one of the most important ways in which OECD governments improve regulatory quality. Businesses are the most knowledgeable source of information about the direct and indirect costs of

Figure 42. **Percentage of SMEs that agreed with the question: "Is the process of developing new regulations usually such that affected businesses are consulted?"**



Note: : No account is taken of no response and non opinion responses.
Source: OECD.

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regulation. Evidence from the survey suggests that there is considerable scope to make more use of this important tool.

The questionnaire however, did not refer to the important role played in the consultation process by business representative bodies such as business associations, industrial and employer' associations and chambers of commerce and industry. The low level of perceived consultation may also indicate scope for business representation bodies to improve member communication.

4.2.3. *The level of compliance*

SMEs were asked to give their opinion about the general level of compliance with regulations in their industry. In overall terms, companies believed that compliance was moderate or high (see Figure 43).

There were differences between areas of regulation. Compliance with tax regulations was perceived to be higher than with employment or environmental regulations.

Moreover, perceived compliance differed between countries. In Norway, Sweden, Iceland, and Spain, more companies believed that compliance in their industry was higher than when compared with other countries. In all cases, perceived compliance concerning tax regulations was higher than employment regulations and much higher than environmental regulations.

In Australia, Belgium, Mexico, and Portugal, companies perceived compliance to be at a more "moderate" level. Again, compliance with tax regulations was thought to be better than with employment and environmental regulations, but the gap was much narrower.

There were also interesting differences between companies of different sizes (see Figure 44).[36] In general terms, the bigger the size of the SMEs, the stronger the perception of a higher level of compliance. In Austria, for example, perceived levels of compliance were much higher amongst large SMEs than they were amongst medium and small SMEs.

5. The quality of regulatory administration

5.1. *The approach taken by the survey*

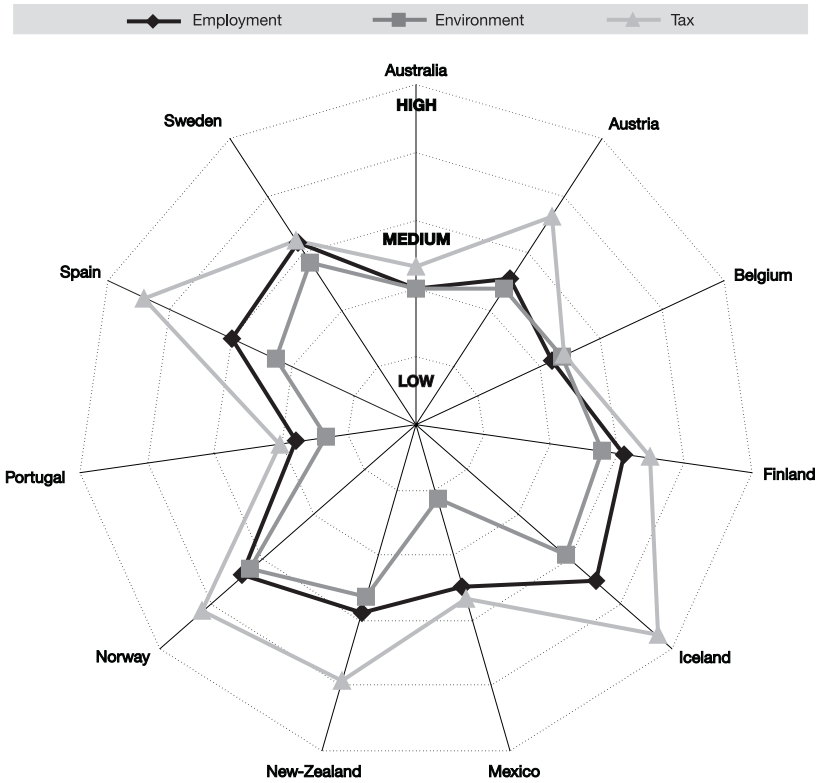
SMEs were asked to assess the administration of tax, employment, and environmental regulations in their country, based on a set of desirable characteristics. They were given a series of statements with which they were asked to *agree fully*; *agree mostly*; *disagree mostly or disagree fully*. They were also given the option of saying that they had no opinion.

Companies were asked firstly about the quality of their contacts with government offices ***to obtain information***. Specifically, they were asked their opinions about:

– Whether it is clear which agency to contact.

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Figure 43. **Perceived levels of compliance among firms, by type of regulation**



Note: : No account is taken of no response and non opinion responses.
Source: OECD.

– The ease of contacting responsible agencies.

– Consistency of views between different people and departments.

– Responsiveness of information to the company's needs.

Companies were then asked about the quality of their contacts with government offices ***to obtain decisions or permissions***. Specifically, they were asked their opinions about:

– The ease of obtaining definitive answers.

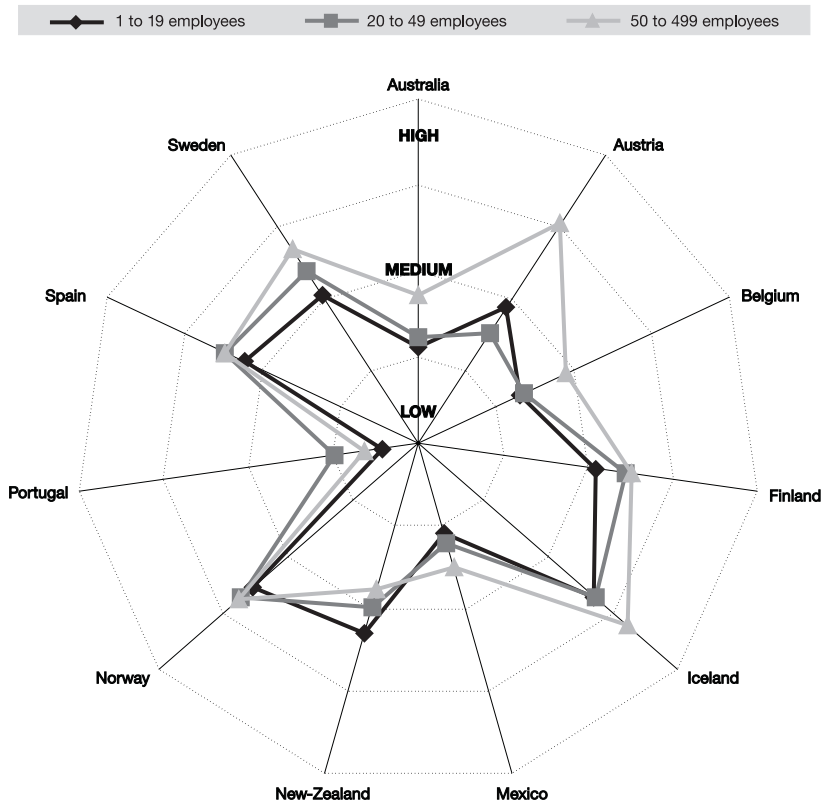
– Speed of response of government authorities.

– The clarity of the appeals and complaints process.

– The extent to which the process is flexible and non-bureaucratic.

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Figure 44. **Perceived levels of compliance among firms, by size of firm**



Note: : No account is taken of no response and non opinion responses.
Source: OECD.

– Consistency and predictability of decisions over time and amongst similar businesses.

– Predictability of payments required.

5.2. *Main findings*

5.2.1. *The quality of administration – When seeking information from government officials*

SMEs in the 11 countries surveyed were critical of some aspects of the administration when seeking information from government officials. However, generally one out of three interviewed were pleased by the quality of the administration.

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Notably at least half of the companies had positive opinions about the usefulness of the information they get and a large proportion knew which agency to contact. The ease with which they could contact responsible agencies was worth documenting. However, SMEs had a negative opinion in terms of consistency and ease with which they could contact responsible agencies.

The situation did, however, differ between areas of regulation and specific government offices. In general, across the countries surveyed, companies were more critical of their contact with government offices when seeking information about *employment* regulations than they were about *tax* or *environmental* regulations.

They criticised their contact with government offices when seeking information about ***employment*** regulations because of the conflicting responses, that is, they did not get the same answer depending authority they contacted (70% of companies) and because authorities were not easy to contact (65%) (see Figure 45).

Companies had negative opinions on the quality of their contact with ***tax*** offices when seeking information for similar reasons. They got conflicting responses depending the tax authority they contacted (72% of companies), and because tax authorities were not easy to contact (59%). On the other hand, companies had more positive than negative opinions when determining who to contact to obtain information concerning tax regulations (see Figure 46).

Contacts with government offices to obtain information about ***environmental*** regulations were criticised, but less heavily (see Figure 47). Companies believed that they did not get the same view no matter who they contacted (67% of companies) and were not easy to contact (58%). However, more companies had positive opinions than negative ones about the responsiveness of government offices to their needs for information about environmental regulations.

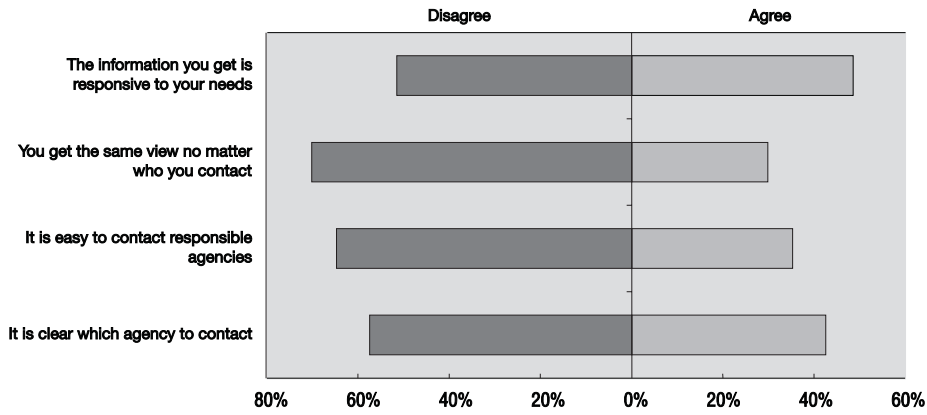
There were differences between countries in terms of the way in which companies perceive the quality of administration when seeking information from government officials (see Table 4 in Appendix VII). In sum, companies' perceptions of the quality of contacts with government offices to obtain information were fairly similar across companies of different sizes and in different sectors.

Companies in Australia were more negative than companies in the other countries surveyed on the quality of contacts when seeking information in *all* three areas (tax, employment, and environment). Companies in New Zealand were more negative than SMEs in other countries on the quality of contacts when seeking information on employment regulations.

A different situation was found in Austria, Belgium, and Mexico. Companies in Austria had more negative views than in other countries when considering the quality of contacts when seeking information on environmental regulations.

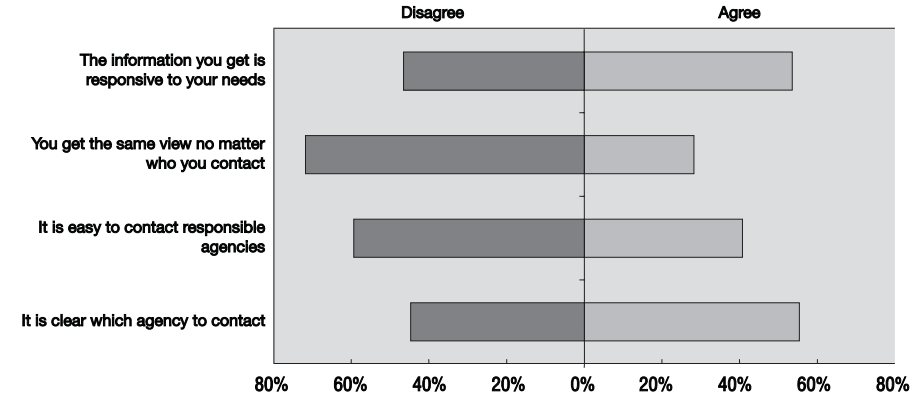
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Figure 45. **Effectiveness of information on employment regulations – average all countries**



Source: OECD.

Figure 46. **Effectiveness of information on tax regulations – average all countries**

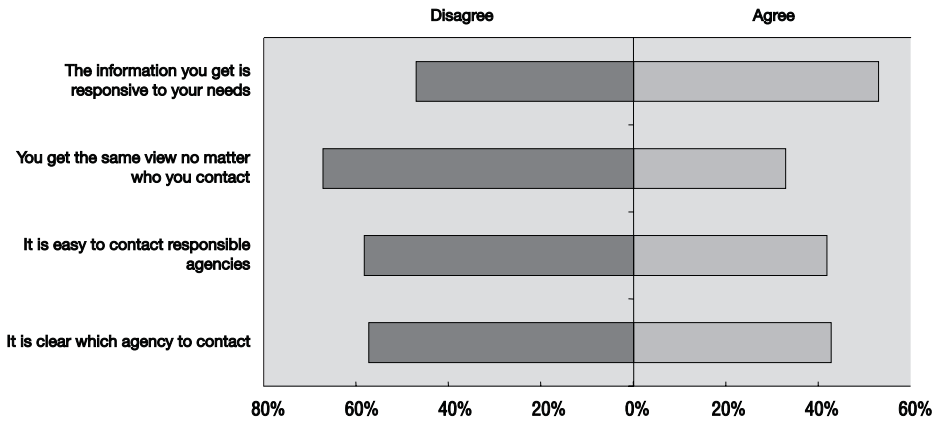


Source: OECD.

Companies in Belgium, on the other hand, were more positive than in other countries about the quality of contacts when seeking information about tax regulations. And, companies in Mexico were more positive when considering the quality of contacts when seeking information about employment regulations.

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Figure 47. **Effectiveness of information on environmental regulations – average all countries**



Source: OECD.

5.2.2. *The quality of administration – When seeking decisions or permissions from government officials*

In general, SMEs in the 11 countries surveyed were more critical on the quality of their contacts with government offices to obtain decisions than they were on the quality of their contacts to obtain information.

Figure 49 reports the number of countries that considered a proposition as the most or less problematic in terms of the quality of the administration to provide a decision required by an employment regulation. SMEs in seven countries out of 11 found that they knew in general who is responsible for the decisions is the most problematic issue. Concerning the positive opinions, the countries were more divided: four countries put in first place (*i.e.* the more positive opinions) the fact that officials give definite answers, and three the reasonable time for given answers.

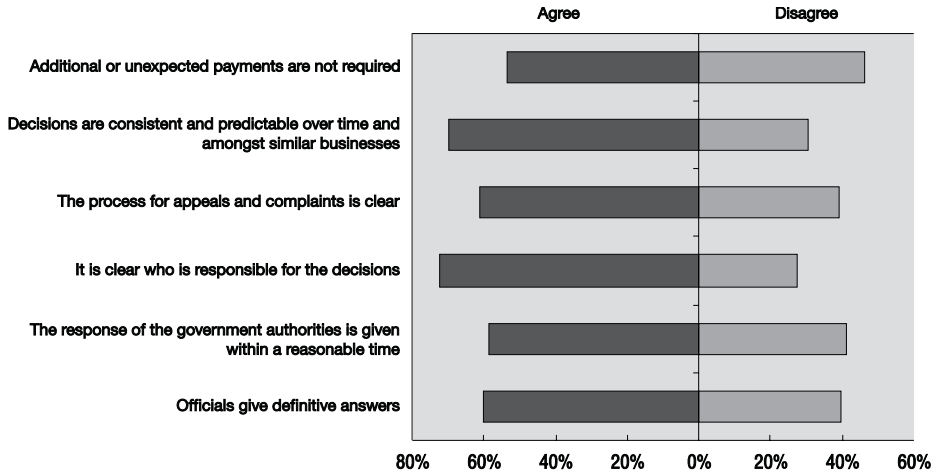
Problems and best practices may be pointed out when looking at the country by country results (see Table 5 in Appendix VII):

– The time for obtaining responses from the government had been evaluated as reasonable in Austria and Belgium, with respectively 49% and 58% of the firms expressing a positive opinion for this question. In contrast, the time for obtaining decisions in Iceland and Portugal was considered the most critical issue of those presented.

– Except in Iceland and Mexico, SMEs complained mainly on the fact that it was not clear who was responsible for the decisions. In both countries, more than two-thirds of the firms had a negative opinion on the issue.

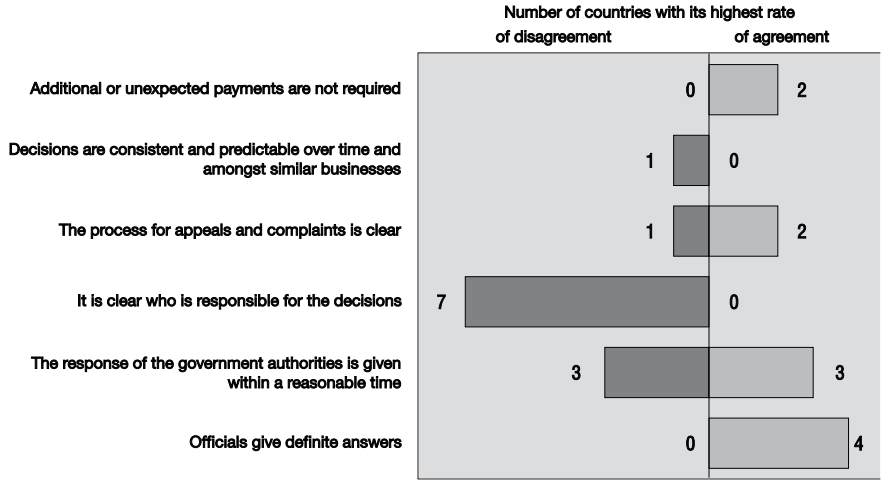
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Figure 48. **Obtaining decisions or permissions on employment regulations – average all countries**



Source: OECD.

Figure 49. **Obtaining decisions or permissions on employment regulations – Questions which received the highest rate of disagreement/agreement for each country**



Note: : No account is taken of non opinion answers.
Source: OECD.

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– SMEs in Finland and Norway seemed to have few problems with respect to consider additional or unexpected payments to get decisions when complying with employment regulations.

Companies criticised their contact with ***tax*** offices when obtaining decisions for similar reasons, but only five countries put the lack of clarity for who is responsible for decisions as the most problematic issue. Businesses in three countries evaluated as the most problematic issue the fact that officials did not give definite answers. Only two countries considered the timeliness of response as the worst problem.

Some specificity in the countries emerge from Table 5 in Appendix VII:

– The time for obtaining responses from the government was evaluated as reasonable in Austria and Belgium, with respectively 53% and 65% of the firms expressing a positive opinion for this question. In contrast, in Iceland and Portugal SMEs were more critical on the time for obtaining decisions, with respectively 72% and 66% of firms unsatisfied.

– Firms in Finland and Mexico were relatively less concerned in terms of additional or unexpected payments to get decisions when complying with concerning tax regulations.

– The process for appeal concerning tax regulations seemed clear for Belgium (53% of the firms surveyed), Norway (56% of the firms) and Spain (70% of the firms). Noteworthy, none of the 11 countries considered this issue as the worst problem listed in the questionnaire.

– Swedish firms had a very negative opinion on the consistency and predictability of tax regulations.

Contacts with government offices to obtain decisions or permissions about ***environmental*** regulations, were criticised, but less heavily than in the two other policy areas. Companies believed it was not clear who was responsible for decisions: eight firms put this issue as the most problematic in the list of questions.

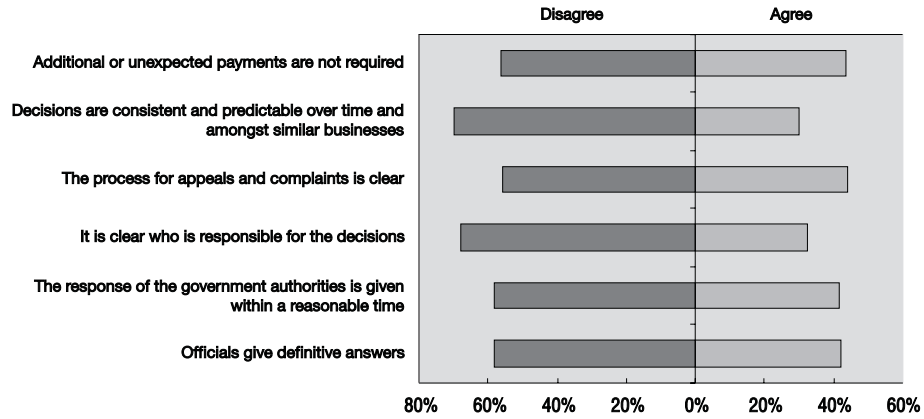
As Table 5 in Appendix VII indicates, there were small differences between countries in terms of the way in which companies perceived the quality of administration when seeking decisions or permissions on environment from government officials. However, the high level of non-opinion expressed by firms for questions concerning environmental regulations is worth recalling. In aggregate, companies' perceptions of the quality of contacts with government offices to obtain information were common across companies of different sizes and in different sectors.

5.2.3. *The number of authorisations required*

Companies request authorisations, permissions and decisions from various government offices to comply with regulations. Companies in the survey were asked to indicate the number of separate decisions requested in a single year.

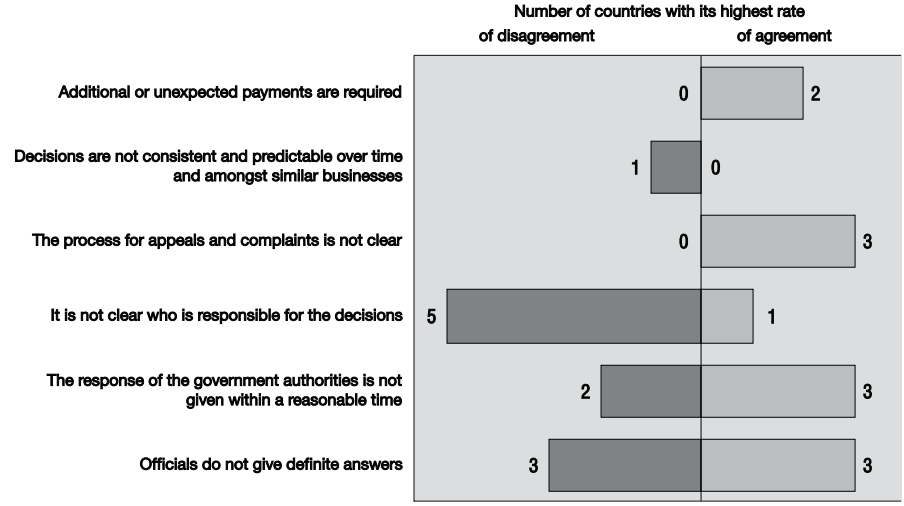
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Figure 50. **Obtaining decisions or permissions on tax regulations – average all countries**



Source: OECD.

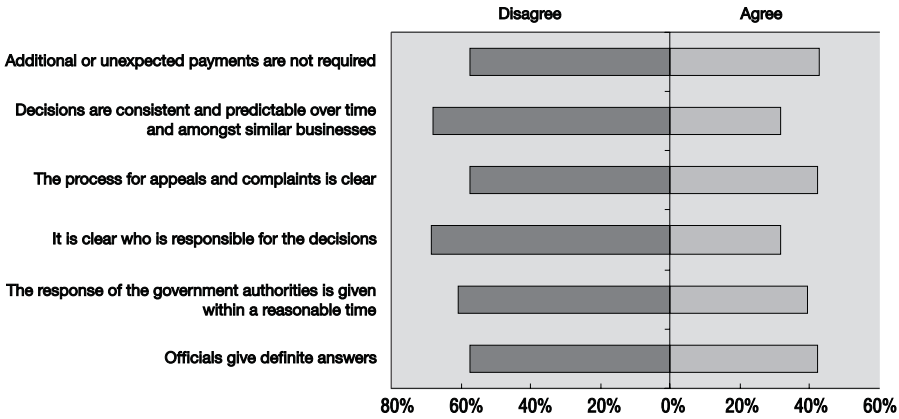
Figure 51. **Obtaining decisions or permissions on tax regulations – Questions which received the highest rate of disagreement/agreement for each country**



Note: : No account is taken of non opinion answers.
Source: OECD.

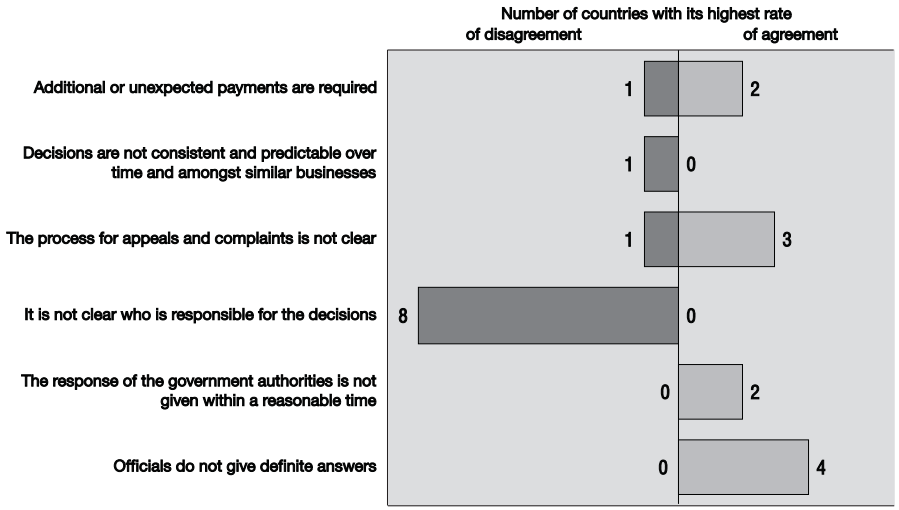
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Figure 52. **Obtaining decisions or permissions on environmental regulations – average all countries**



Source: OECD.

Figure 53. **Obtaining decisions or permissions on environmental regulations – Questions which received the highest rate of disagreement/agreement for each country**

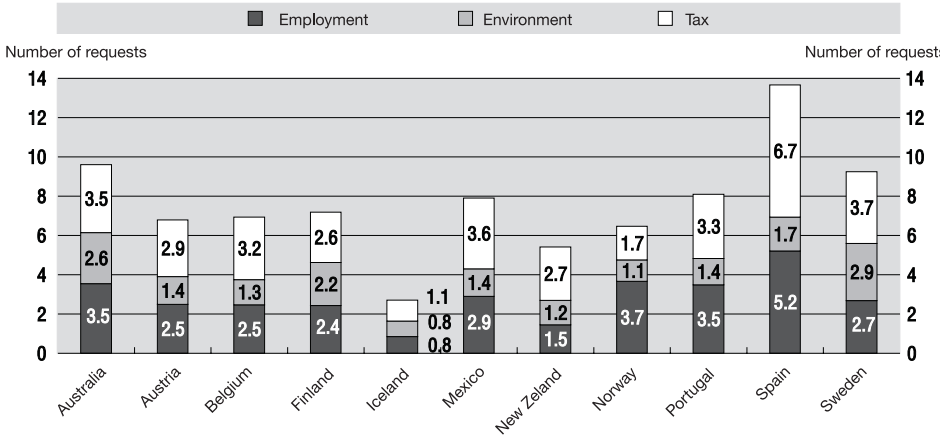


Note: : No account is taken of non opinion answers.
Source: OECD.

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Companies across the 11 countries surveyed requested an average of eight decisions per year (see Figure 54). For all countries, more authorisations were requested from tax and employment offices than from environmental offices. Moreover, the average number of requests for decisions varied considerably from one country to another. The number in Iceland (2.7) was only one fifth of the number requested in Spain.

Figure 54. **Average number of requests for permissions made annually per firm and regulatory area**



Source: OECD.

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Appendix II

Comparison with other surveys and studies

1. On the administrative compliance costs per company

It is difficult to compare the findings from the OECD survey with other research, as other studies have employed different methodologies and used different definitions. In general, however, the findings from the OECD survey are not inconsistent with other work.

The B*ureau* F*édéral du* P*lan* in Belgium produced a study using the OECD survey's data presented in this report. This study enters into the framework of the on-going administrative simplification process in Belgium.[37]

Evidence from a major survey of 7 900 SMEs in France suggests that the annual administrative cost of complying with 13 areas of regulation (including tax, employment, and the environment) is Euro 21 000 per company.[38] Of this, 55% is internal cost and the remainder (45%) represents the use of external experts.

Detailed work in the tourist sector in Switzerland supports these estimates. Over 100 face-to-face interviews were conducted with hotels and restaurants throughout Switzerland.[39] All respondents were SMEs. The survey suggests that the annual administrative cost of complying with 10 Federal and four Cantonal areas of regulation is Euro 26 000 per company. Areas of regulation covered by the survey include tax, employment, and environment along with sector specific legislation, such as food hygiene.

Evidence from the USA provides broadly similar estimates. A telephone survey of 360 firms concludes that average cost per firm is Euro 17 000.[40] It also suggests that tax and employment regulations create the greatest compliance costs for companies and that the cost of clerical burden is disproportionately high for small firms.

In contrast, a survey of 526 companies in the Netherlands concludes that the average administrative cost of compliance is Euro 9 800 per company.[41] At first sight this is significantly lower than estimates based on the OECD survey. However, when the figures are examined by cost per employee for different firm sizes, there are greater similarities with estimates in the OECD survey.

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Other work from the Netherlands provides an insight into the administrative costs of specific business activities of particular relevance to SMEs. A recent study concluded that the cost of meeting standard administrative obligations to take on the first employee in the Netherlands was Euro 1 735 compared to Euro 1 265 in the United Kingdom.[42]

In terms of turnover, a comparison with the OECD survey estimates is provided by a survey of 427 companies in the United Kingdom.[43] It suggests that 2.5% of the turnover of small and medium-sized SMEs (with less than 50 employees) is absorbed in fulfilling administrative regulatory requirements.

2. On the administrative compliance costs per employee

The findings of the OECD survey are broadly consistent with the conclusions reached by other researchers. A major, detailed study in the Netherlands for example concluded that the cost per employee derived is very similar to the OECD estimates, particularly for medium-sized and large SMEs (see Box 4).

The survey of SMEs in the Swiss tourist sector reported above supports the findings of the Dutch study. It suggests that the annual administrative costs of complying with 14 areas of federal and Cantonal legislation is Euro 17 000 for companies with less than 19 employees, Euro 29 000 for firms with 20 to 49 employees and Euro 63 000 for companies with between 50 and 249 employees.[44]

Box 4. **Administrative compliance costs in the Netherlands**

In a study conducted in 1993 based on a survey of 526 companies in The Netherlands, businesses were asked to estimate the administrative burden of complying with a defined list of regulations associated with "being an enterprise" and "being an employer". This covered tax, employment, environmental protection, and product standards regulations. The estimated administrative compliance costs were:

Company Size	Cost per employee (Euro)
1-9	3 500
10-19	1 500
20-49	1 400
50-99	900
100+	600

Source: EIM.

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Recent work for the US Small Business Administration reached a similar conclusion using a completely different methodology.[45] Based on an analysis of the Federal Government's Regulatory Impact Analyses for 24 specific regulations plus recent work on tax paperwork burdens, the study concludes that the cost of complying with regulations is disproportionately high for small companies. The average unit cost for the smallest business was 100 times that of the largest business for tax paperwork burdens. It also concludes, however, that the degree to which unit costs are higher varies from regulation to regulation.

The US study also identified a number of factors that contribute to high unit costs. These include the high cost of some start-up activities (*e.g.* familiarisation and planning), technical economies of scale, one-off activities (*e.g.* Hazard Assessments) and the fact that many paperwork requirements tend to have many of the characteristics of fixed costs. Factors that can offset high unit costs for small entities include the use of tailored-made regulations to simplify requirements for small companies, and exemptions or thresholds for small companies.

3. On the impact of the administrative compliance costs on the economy

Work in the USA, for example, concluded that there has been a steady growth in the costs of regulatory compliance in the US.[46] The study estimated that it has grown from $560 billion in 1985 to $668 billion in 1995. It projected that the total costs of regulatory compliance would reach $720 billion by 2000. This represents around 9% of US GDP. About a third of the total (*i.e.* 3%) was attributed to the (compliance) paperwork requirements of process regulations. The remainder arose from the cost of economic regulations (such as price and entry controls) and the cost of implementing environmental and risk-related regulations.

A study of potential scale of administrative compliance costs in the European Union reached similar conclusions. It estimated in 1995 that the annual cost of administrative burdens for enterprises in Europe was between 3% and 4% of GDP.[47] The study used detailed analyses of compliance costs in the Netherlands and national labour costs in each EU member state.

Work in the United Kingdom underpinned the potential scale of administrative compliance costs for companies. A study based on Regulatory Impact Assessments drawn up by the UK government, estimated that the cost of compliance with just 16 recently introduced regulations would cost Euro 15 billion over the four-year life of the government of the time.[48] This represented around 0.25% of GDP per annum.

4. On indirect costs

Detailed evidence from the Car Assembly Industry, for example, suggests that employment regulations in Europe play a major role in creating working conditions

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Box 5. **Research projects in the car assembly industry**

Calculations by the European Car Assembly Industry based on research started in Germany in 1995 and scheduled to finish in 2002 will – same organisation and productivity assumed – finish 1.25 years earlier in the USA and three years earlier in Japan suggest that shorter working hours and inflexible working conditions are the main reason for the slower pace of development in Germany.

Source: ACEA.

and working times that are shorter and less flexible than those in non-European countries. This, in turn, slowed down the pace of innovation (see Box 5).

Other research in the European Industrial Cleaning Sector also supports the OECD survey findings. In a job creating, growth sector dominated by SMEs, Industrial Cleaning companies conclude that Employment regulations increase employee and overhead costs and reduce labour flexibility (see Box 6).

Box 6. **A survey of the industrial cleaning sector**

The Industrial Cleaning Sector in the EU employs more than 1.7 million people and has a turnover of more than Euro 20 billion. Most companies are small SMEs, employing less than 20 people.

More than 80% of cleaning companies surveyed believed that regulations make it more difficult for them to grow their business. Companies identified a range of problems, which Employment regulations create for them:

– They increase employee costs (according to 66% of companies).
– They increase overheads (63%).
– They reduce labour flexibility (57%).
– They divert management time (55%).

The regulations having the greatest adverse effect include Recruitment and Dismissal regulations, Overtime Restrictions, the Transfer of Undertakings, and Part Time and Temporary Workers Regulations.

Source: UNICE.

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Box 7. **Impact of regulatory quality on the competitiveness of Europe's Animal Health Industry**

A part of the high-tech pharmaceutical industry, the animal health sector plays a crucial role in agricultural productivity, food safety, and pet care. Europe also benefits from the industry's extensive investments in R&D in a number of European countries. The industry faces a challenging future. Returns are declining, demand is mature, costs are rising, and R&D is becoming more difficult.

This study examined the impact of regulations on the competitiveness of Europe's animal health sector. It involved more than 50 depth interviews and a quantitative survey covering companies representing 85-90% of European animal health sales. Results from Europe were benchmarked against the USA.

The principal findings are:

- The most important driver of long-term success in the industry is innovation – the development of new products (85% of companies).
- The ability of companies to develop new products successfully in Europe is impeded by a number of obstacles, particularly Europe's regulatory framework (76% of companies).
- Poor regulations are an obstacle to successful innovation in Europe because they affect the most important company-specific critical success factors. In the opinion of companies, poor regulations raise costs (83% of companies), slow down time-to-market (79%), increase risks through regulatory unpredictability (59%), reduce finance available by diverting resources into defensive R&D (44%), and close markets for specific products (41%).
- Some of these impacts can be measured quantitatively. For example, in the last five years, regulatory factors in Europe have increased the average time to develop a new product by 2.5 years and increased real development costs by 50%.
- One of the most important causes is poor regulatory quality. Companies identified, for example, a series of major shortcomings with product approval regulations in Europe. These include lack of harmonisation in the EU (59% of companies), administrative inefficiency and failure to meet statutory deadlines (49%), political involvement and uncertainty in decision-making (49%), excessive registration costs (49%), and lack of consistency in test requirements throughout the product development process (43%).

Business Decisions Limited (1997) "Benchmarking the Competitiveness of Europe's Animal Health Sector" (a study for FEDESA).

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The importance of high quality regulation for business competitiveness is further reinforced by the findings of detailed study of the Animal Health sector in the European Union and the USA. A major finding of the study was that weaknesses in the quality of consumer and environmental protection regulations in the European Union had increased the time and cost needed to develop major new products compared to the USA (see Box 7). Detailed work by UNICE looking at environmental regulations also reached similar conclusions (see Box 8).

5. On the quality of administration

Recent work supports evidence that there are still significant shortcomings in many OECD countries.[49] For example, UNICE identified that in Europe's service sectors there were still major problems surrounding the granting of licences and permits to new service providers. This included the extensive range of regulations that must be satisfied before new retail outlets can be opened. For example, it took three times longer to obtain regulatory approval to build a new petrol station in the EU than in the USA (see Box 9).

The above data shows that major differences exit *between* countries in the time it takes to issue a permit. But differences also exist *within* countries. Recent work by The Swedish Employers Confederation (SAF),[50] shows that there are massive

Box 8. **A detailed assessment of environmental regulations**

Experts from UNICE member federations identified a list of nine European environmental Protection Regulations which were believed to have the greatest current (or potential) adverse effect on the competitiveness of companies. Experts in some 100 companies were then consulted using a structured approach. They identified, for each regulation, the defects in the quality of that regulation.

- The most common problems identified by the company experts were:
- Regulations are not proportionate to hazard and risk.
- Regulations are too complex or prescriptive.
- Technical definitions are poor or inconsistent.
- Regulations are too difficult to understand.

They conclude that these problems increase operating costs for companies, increase capital expenditure and divert management time.

UNICE (1995), T*he* UNICE R*egulatory Report – Releasing Europe's Potential through targeted Regulatory Reform*.

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Box 9. **Time needed to obtain a permit and build a new petrol station (number of days)**

Country	Time to obtain permit	Time to build
USA	14	12
EU-7	43	11
Netherlands	26	9
UK	26	12
Austria	43	11
Switzerland	52	10
Germany	52	11
Greece	52	12
Portugal	52	12
Spain	52	12

Source: UNICE.

differences between Sweden's 289 municipalities in the time it takes them to issue a permit to open a standard "model" restaurant. The fastest permit was issued in 18 days; the slowest took 289 days.

The importance of effective implementation and enforcement of regulations has been recognised by a number of OECD governments. In Australia, for example, the federal government undertook a major, qualitative benchmarking exercise to compare business-licensing arrangements (including enforcement) in Australia and a number of other countries. Based on global best practices, the study developed checklists of desirable characteristics for licence approval, standards, and enforcement. The study identified strengths and weaknesses of the existing approach taken by state and federal government in Australia[51] (see Box 10).

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Box 10. **Licence enforcement – Benchmarking Australia's performance**

Based on global best practices the Australian Bureau of Industry Economics identified five desirable design features for effective licence enforcement. Specifically:

- Private reporting – reward private reporting of breaches of licences if practical.
- Hierarchy of public enforcement methods – severity of sanction should match the seriousness of the non-compliance.
- Publish enforcement policies – provide greater certainty to businesses about the application of sanctions.
- Targeted enforcement – focus the use of public resources.
- Performance incentives – use market incentives, rather than command and control regulation.

Australia's performance against these criteria was assessed and compared with that for Canada, USA, Japan, UK, and Malaysia.

The survey found that Australia compared favourably with the benchmark countries in most areas. However, it concludes that compliance in Australia might be improved with greater use of performance incentives, and wider publication of enforcement and incentive policies.

Source: BIE.

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Appendix III

The survey questionnaire[52]

1. Organisation for Economic co-operation and Development (OECD), Government sponsor, Business representative sponsor

Identification number:

Survey on the Compliance Costs to Businesses of Employment Regulations

This survey is the first multi-country business survey that will permit an international comparison of regulatory and administrative environments for businesses in OECD *countries. It is being conducted jointly by the* OECD*, national governments, and business associations. The* OECD *will use the information you provide to develop comparative indicators of regulatory and administrative environments for businesses. These will, in turn, be used by your government to improve the business environment.* ***As one of the very small number of firms in your country to be asked to participate, your answers are very important for the validity of the results****. Please take the time to fill in this questionnaire. Most of the respondents will need between* 30 *and* 45 *minutes. Once completed, please return it using the enclosed prepaid envelope by* (2 *weeks after mailing*) 1998.

Your answers will remain ***strictly confidential*** *and will at no time be attributed to you or your company. If you are unable to answer any individual question, leave it blank and move on to the next one. Thank you very much for your collaboration.*

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Scope of this Survey

This survey covers the **costs** of complying with all Employment regulations applicable to your business.

Employment regulations are government requirements covering:

- hiring and firing employees,
- complying with safety and health standards, workers' rights.
- consulting with work councils or unions
- statistical reporting of Employment-related data,
- administering Employment-related or payroll taxes, social security and pensions, or other mandatory Employee benefits (*e.g.* maternity leave, sick leave).

We are asking for the impact of *all* Employment regulations that affect your business, no matter what their origin is (local, provincial, national or international).

Who should answer this questionnaire?

The survey has been designed to be answered by the General Manager (or equivalent) of a Small or Medium-sized Enterprise.

In the case of a group, holding or multiple site business, answer the questions by *trying to estimate* the impacts on the whole firm which is the addressee of this questionnaire.

If you are part of an international group or have offices/factories in other countries, please reply only for the country to which the questionnaire was sent.

Section A: Company details

A 1. *What is the main economic sector your business operates in?* (Please tick one box only)

❑ Fishing	❑ Real estate
❑ Manufacturing	❑ Renting of machinery
❑ Construction	❑ Computers and related activities
❑ Wholesale, retail trade	❑ Consulting and business activities
❑ Repair of motor vehicles, cycles, etc.	❑ Education and research
❑ Hotels and restaurants	❑ Health and social work
❑ Transport, storage and communication	❑ Other services
❑ Financial intermediation	❑ Other (*specify*):

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A 2. How many employees did you have at the end of January 1998?

Total:

A 3. How long has your business been operating? (Please tick one box only)

❑ Less than 2 years	❑ 2-5 years	❑ 5 or more years

A 4. What was your business' last annual gross turnover? (Please provide your answer in local currency)

Total:

A 5. Does your business have full or partial foreign ownership? (Please tick one box only)

❑ Yes	❑ No

A 6. Over the past two years, what has happened to the performance of your business in the following areas? (Please tick one box in each row only)

	Decreased substantially	Decreased	No change	Increased	Increased substantially	Does not apply
1. Market share	❑	❑	❑	❑	❑	❑
2. Profits	❑	❑	❑	❑	❑	❑
3. Employment	❑	❑	❑	❑	❑	❑
4. Capital investment	❑	❑	❑	❑	❑	❑
5. New product/Service launches	❑	❑	❑	❑	❑	❑
6. If you are an exporter, Export sales	❑	❑	❑	❑	❑	❑

A 7. Indicate the name of the State or Province where your firm (or site for a large firm) is located:

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Section B: Quality of employment regulations

This section examines your views about the quality of government Employment regulations.

B 1. *Thinking about* Employment *regulations as a whole, do you agree or disagree with the following statements?* (Please tick only one box in each row)

	Agree fully	Agree mostly	Disagree mostly	Disagree fully	No opinion
1. They are easy to understand	❑	❑	❑	❑	❑
2. They achieve their objectives as simply as possible	❑	❑	❑	❑	❑
3. They are flexible enough to be implemented efficiently by businesses	❑	❑	❑	❑	❑
4. Changes in regulations are predictable	❑	❑	❑	❑	❑
5. Regulations are consistent with one another	❑	❑	❑	❑	❑
6. Despite the number of regulations, it is still feasible to comply fully	❑	❑	❑	❑	❑

B 2. *In your opinion, is the process of developing new regulations usually such that affected businesses are consulted?* (Please tick one box only)

❑ Always ❑ Often ❑ Seldom ❑ Never ❑ No opinion

B 3. *In your opinion, what is the general level of compliance with* Employment *regulations among the firms in your industry?* (Please tick one box only)

❑ High level of compliance ❑ Moderate level of compliance ❑ No opinion

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Section C: Quality of administration of employment regulations

This section examines your views on **how the government implements and administers** Employment regulations.

C 1. *Thinking about your contacts with government offices* TO OBTAIN INFORMATION *about Employment regulations, to what extent do you agree or disagree with the following statements?* (Please tick only one box in each row)

	Agree fully	Agree mostly	Disagree mostly	Disagree fully	No opinion
1. It is clear which agency to contact	❑	❑	❑	❑	❑
2. It is easy to contact responsible agencies	❑	❑	❑	❑	❑
3. You get the same view no matter who you contact	❑	❑	❑	❑	❑
4. The information you get is responsive to your needs	❑	❑	❑	❑	❑

C 2. *Thinking about your contacts with government authorities* TO OBTAIN DECISIONS OR PERMISSIONS *on Employment regulations, to what extent do you agree or disagree with the following statements?* (Please tick only one box in each row)

	Agree fully	Agree mostly	Disagree mostly	Disagree fully	No opinion
1. Officials give definitive answers	❑	❑	❑	❑	❑
2. The response of the government authorities is given within a reasonable time	❑	❑	❑	❑	❑
3. It is clear who is responsible for the decisions	❑	❑	❑	❑	❑
4. The process for appeals and complaints is clear	❑	❑	❑	❑	❑
5. The process is flexible and not bureaucratic	❑	❑	❑	❑	❑
6. Decisions are consistent and predictable over time and amongst similar businesses	❑	❑	❑	❑	❑
7. Additional or unexpected payments are not required	❑	❑	❑	❑	❑

C 3. *During the past year, how many separate decisions or permissions did your business request from a government to comply with Employment regulations?* (Please provide an approximate number)

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C 4. T*hinking about the impact of complying with all* Employment *regulations, estimate on a five point scale how the potential problems shown below affect your business* (Please tick only one box in each row)

	None 0	Low 1	2	3	4	High 5
1. They increase wage rates	❑	❑	❑	❑	❑	❑
2. They increase non-wage labour costs	❑	❑	❑	❑	❑	❑
3. They create difficulties in matching production and demand	❑	❑	❑	❑	❑	❑
4. They reduce labour productivity	❑	❑	❑	❑	❑	❑
5. They impede changes to working practices	❑	❑	❑	❑	❑	❑
6. They slow down development of new products and services	❑	❑	❑	❑	❑	❑
7. They create difficulties in making staff reductions	❑	❑	❑	❑	❑	❑
8. They create difficulties in hiring new staff	❑	❑	❑	❑	❑	❑
9. They reduce the attractiveness of entering new markets	❑	❑	❑	❑	❑	❑

C 5. I*n your opinion, how have the compliance costs of* Employment *regulations affected the following developments in your firm?* (Please tick only one box in each row)

	Decreased substantially	Decreased	No change	Increased	Increased substantially	Does not apply
1. The need for *full-time* workers	❑	❑	❑	❑	❑	❑
2. The need for *part-time* workers	❑	❑	❑	❑	❑	❑
3. The need for *temporary* workers	❑	❑	❑	❑	❑	❑
4. The need to substitute *equipment* for workers	❑	❑	❑	❑	❑	❑
5. The need to relocate operations outside the country	❑	❑	❑	❑	❑	❑

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Section D: Administrative compliance costs of employment regulations

This section will concentrate only on the administrative compliance costs.

– **Administrative costs are defined as formalities and paperwork that your business carries out, or pays somebody to carry out, to comply with Employment regulations.**

They cover all time and resources spent by owners, managers, staff or hired experts to understand regulations, collect, process, report, retain data as well as fill in forms required by the government, including the administration (but not the actual payments) of employment-related taxes and social security and pension contributions.

– Administrative compliance costs **do not include capital expenses or payments** you make to buy machinery, equipment or other inputs incurred during the production or delivery activities of a firm (for instance, investments in health and safety equipment and installations).

Remember that we are asking about administrative compliance costs of all Employment regulations that affect your business, no matter what their origin is (local, provincial, national or international).

D 1. H*ow many hours are spent on an average month by staff and management in your business complying with* Employment regulations? (Please make your *best estimate* in hours per month, and adjust it to take account of very busy or slow months)

Hours per average month

D 2. H*ave you bought in the past year computers or software to mostly help you to comply with* Employment regulations? (Please tick one box only)

❑ Yes	❑ No

I*f yes, could you estimate your annual computer or software expenses mostly used to comply with* Employment regulations? (Please make your best estimate in local currency)

Estimate of annual expenses

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D 3. H*ow much money does your business spend during an average month on hiring* OUTSIDE *services to comply with* E*mployment regulations?* (Please estimate how much you spend during an average month. Include all expenditures on external services, such as accountants, lawyers or pay-roll consultants, for purposes of regulatory compliance)

	monthly expenses

D 4. P*lease estimate on a four point scale the administrative compliance costs of* E*mployment regulations related to the activities shown below* (Please tick one box only in each row)

	Administrative compliance costs				
	Low **1**	**2**	**3**	High **4**	No opinion
1. Understanding and communicating regulations	❑	❑	❑	❑	❑
2. Managing the hiring and firing of employees	❑	❑	❑	❑	❑
3. Administrating Employment-related taxes, social security or pension contributions	❑	❑	❑	❑	❑
4. Administrating other employee benefits (*e.g.* maternity leave, sick leave)	❑	❑	❑	❑	❑
5. Complying with worker's rights, safety and health requirements (*e.g.* accident reporting, testing, but not substantive provisions)	❑	❑	❑	❑	❑
6. Organising the internal consultations with work councils and unions (insofar required by law)	❑	❑	❑	❑	❑
7. Statistical reporting of employment related data	❑	❑	❑	❑	❑
8. Matters related to government inspections and enforcement activities	❑	❑	❑	❑	❑
9. Other activities required by Employment regulations	❑	❑	❑	❑	❑

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D 5. *In your opinion, how have administrative compliance costs that result from Employment regulations changed in the past two years?* (Please tick one box only)

Increased substantially… Increased…	… as a result of the…	❑ … introduction of new Employment regulations ❑ … increase in the complexity of existing Employment regulations ❑ … expansion of your company's activities ❑ … increase in the compliance with Employment regulations
Stayed the same		❑
Decreased… Decreased substantially…	… as a result of the…	❑ … simplification or reduction of Employment regulations ❑ … successful government reforms to reduce compliance costs ❑ … reorganisation of administrative compliance in your company ❑ … decrease in the compliance with Employment regulations ❑ … termination of a regulated process, product or service

D 6. *What is your estimate of the administrative compliance costs of Employment regulations on your business compared with other firms in your industry?*
(Please tick one box only)

❑ Low	❑ Moderate	❑ High	❑ No opinion

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Basic Information (Optional)

If you are willing to answer queries that arise from this questionnaire, please provide contact details. Your answers will be treated in strict confidence.

Respondent Name:
Respondent Job Title:
Company Name:
Telephone Number:
Fax Number:
E-mail address:

Please indicate if you would like a copy of the summary report that will arise from this project:

❑ Yes	❑ No

If **yes**, indicate your address:

1.1. *End of Questionnaire – thank you! Please return it promptly using the* enclosed prepaid envelope.

We appreciate your help.

If you wish to discuss this survey with the OECD, please contact:

The Business Survey Project
Public Management Service
OECD
2, rue André-Pascal
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Tel: (33-1) 45 24 89 47
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E-mail: cesar.cordova@oecd.org

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Appendix IV

Additional data used for the cost estimates

Table 1. **Small- to medium-sized business populations in the survey**
Number of firms by stratum

Sector	Manufacturing			Services with physical impacts			Professional services		
Number of employees	1 to 19	20 to 49	50 to 499	1 to 19	20 to 49	50 to 499	1 to 19	20 to 49	50 to 499
Australia	97 100	5 300	2 700	170 200	9 700	3 600	192 400	7 600	3 700
Austria	32 266	3 943	2 587	88 637	4 170	1 989	71 659	1 996	1 284
Belgium	42 839	3 744	2 027	84 501	3 653	1 025	32 854	1 117	644
Finland	16 001	1 532	1 045	24 646	1 290	648	19 850	648	685
Iceland	1 282	544	471	126	54	47	104	44	38
Mexico	40 932	6 274	6 480	159 612	6 051	3 416	31 818	1 969	1 468
New Zealand	44 890	1 532	838	66 120	2 080	906	64 374	2 444	1 029
Norway	20 788	2 344	1 417	50 720	3 512	1 068	32 374	1 925	926
Portugal	37 030	89 560	30 656	7 310	3 776	1 025	3 943	1 326	537
Spain	260 922	20 176	7 819	521 691	12 670	4 379	240 515	8 613	4 408
Sweden	39 446	2 987	1 928	67 390	3 230	1 359	70 331	2 718	1 567

Source: The OECD PUMA Multicountry Business Survey.

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Table 2. **External 1998 data used in analyses**

	GDPB[1] million US dollars	Hourly Labour cost[2] US dollars	PPP[1] local currency to US dollar
Australia	340 557	19	1.32
Austria	145 802	27	13.51
Belgium	184 750	25	37.79
Finland	81 763	19	6.13
Iceland	5 033	13	83.46
Mexico	663 475	13	5.05
New-Zealand	50 386	10	1.48
Norway	70 384	24	9.19
Portugal	109 921	13	125.11
Spain	539 985	11	125.38
Sweden	132 772	22	9.63

Notes: GDPB: Business sector gross domestic product; PPP: Purchasing power parity.
NACE K74 (other business activities) and estimates directly provided by Australia, Iceland, Spain, Mexico and New Zealand.

1. Source: Economic Outlook Database/OECD; USD dollars adjusted for PPP.
2. Sources: Eurostat Labour Survey for Austria, Belgium, Finland, Norway, Portugal, and Sweden.

The Hourly labour cost data reported in column 2 of Table 2 were estimated with data from the OECD databases, through the formula Compensation of employees/(Number of employees x Average annual hours actually worked), with the following definitions:

– *Compensation of employees*: "The compensation of employees comprises all payments by producers of wages and salaries to their employees, in kind as well as in cash, and of contributions in respect of their employees to social security and to private pension, casualty insurance, life insurance and similar schemes".

– *Average annual hours actually worked* is defined as follows: "the number of hours worked over the year divided by the average number of people in employment".

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Appendix V

Issues concerning non-response/no opinion to questions and confidence intervals on qualitative questions

Table 1. **Qualitative questions with high rates of non-response or no opinion**

Country	Policy area	Questions with high rates of non-response or no opinion
Australia	Environment	B1.4, B1.5, C1.3, C1.4, C2
	Employment	C2
	Tax	None
Austria	Environment	C2.6, C2.7
	Employment	C2.7, C5.5
	Tax	None
Belgium	Environment	B1.4, B2, C1.3, C2
	Employment	C2, C5.2, C5.3, C5.5
	Tax	None
Finland	Environment	Most questions
	Employment	C5.5
	Tax	None
Iceland	Environment	Most questions
	Employment	Most questions
	Tax	Most questions
Mexico	Environment	None
	Employment	None
	Tax	None
New Zealand	Environment	Most questions
	Employment	C2, C5.5
	Tax	C2
Norway	Environment	Most questions
	Employment	C5.5
	Tax	C2
Portugal	Environment	Most questions
	Employment	C2.3, C2.3, C2.4, C2.5, C2.6, C2.7
	Tax	B3
Spain	Employment	None
	Environment	B1.2, B1.3, B1.6, C1.3, C1.4, C2
	Tax	None
Sweden	Environment	B1.4, B1.5, B1.6, C1.2, C1.3, C1.4, C2
	Employment	C2, C5.5
	Tax	None

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Table 2. **Confidence intervals for answers to qualitative questions**

	10%	30%	50%	70%	90%
Australia	7.3-12.7	26.0-34.0	45.7-54.3	66.0-54.0	87.3-92.7
Austria	5.3-14.7	22.8-37.2	42.1-57.9	62.8-77.2	85.3-94.7
Belgium	8.6-11.4	27.9-32.1	47.7-52.3	67.9-72.1	88.6-91.4
Finland	6.2-13.8	24.7-35.3	44.0-56.0	64.7-75.3	86.2-93.8
Iceland	8.4-11.6	27.5-32.5	47.3-52.7	67.5-72.5	88.4-91.6
Mexico	5.5-14.5	23.5-36.5	42.8-57.2	63.5-76.5	85.5-94.5
New Zealand	7.7-12.3	26.5-33.5	46.2-53.8	66.5-73.5	87.7-92.3
Norway	6.0-14.0	24.5-33.5	44.2-55.8	64.5-75.5	86.0-94.0
Portugal	7.7-12.3	26.6-33.4	46.2-53.8	66.6-73.4	87.7-92.3
Spain	6.5-13.5	24.6-35.4	44.1-55.9	64.6-75.4	86.5-93.5
Sweden	6.9-13.1	25.2-34.8	44.8-55.2	65.2-74.8	86.9-93.1

1. The confidence interval depends on the size of the sample and the weight of the individual respondent (business) in relation to the total population of respondents in each stratum.

How to read the table. If 50% of businesses surveyed in Finland answered "Disagree" to question B3, the real percentage of businesses holding this opinion may be assumed to be between 44% and 56%, whereas for Australia it would be between 45.7% and 54.3%.

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Appendix VI

Analysis of variance results among policy areas, countries, industries, and firm structures

A series of analyses of variance were performed for each of the three policy areas: Employment, environment, and tax to determine whether differences among economic sectors, company sizes, and other country differences impact administrative compliance costs (see Model definition and ANOVA results at the end of the Appendix).

In particular the analysis concentrated on trying to determine:

– whether these factors explain some of the differences in costs per employee;

– if differences exist within each factor (*e.g.* are the estimated costs statistically different between small, medium, and large SMEs); and

– if interactive effects exist among the factors (*i.e.* the effect on cost per employee of one factor is modified by another factor).

The results from the analyses suggest that, as a whole, the factors are significant and that the individual factors do affect the cost structures of the companies surveyed. The significance levels of the individual factors are displayed in Table 1. It should be noted, however, that only a small proportion of the total variation in costs per employee is explained by these models and, therefore, the results must be read with caution.[53]

Table 1. **Factors that affect the administrative costs of compliance of companies by regulatory area**

	Industry of company	Size of company	Country of company	Interaction between size and country	Interaction between industry and country	Interaction between industry and size
Employment	***	***	***			**
Environment	***	***	***	**	**	***
Tax	***	***	***	***		

***: statistically significant at a 95% level.
**: statistically significant at a 90% level.

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In the following section further analyses and interpretations of the statistically significant relationships (*i.e.* those with *** in Table 1) will be presented.

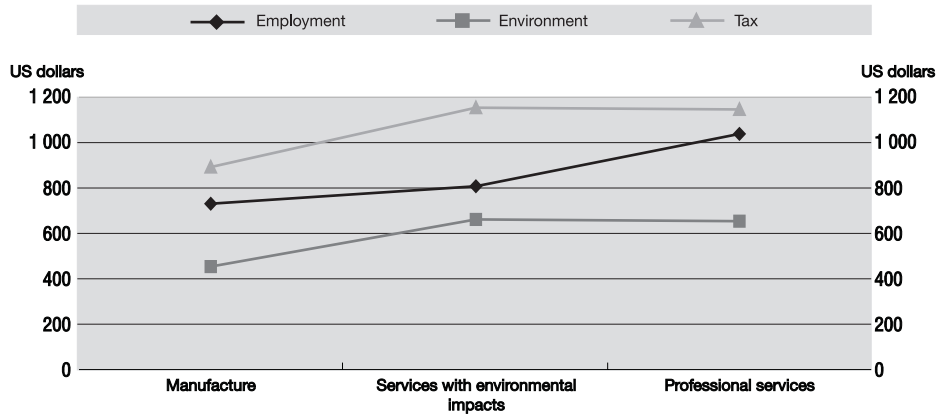
Relationships between administrative cost and policy areas

The analysis of variance confirms that administrative costs per employee depend on whether a firm was part of the manufacturing, services with environmental effects, or professional services sectors (see Figure 1). More specifically, costs related to employment regulations in the professional services sector were 43% higher than in the manufacturing sector. Costs per employee of compliance to environmental regulations were slightly higher in the services with environmental effects sector than in the professional service sector (1%). When complying with tax regulations, firms in the services with environmental impacts sector had higher average costs than the other sectors: 30% higher than manufacturing and 1% higher than professional services.

Relationships between administrative costs and size of firms

The results of the analysis also supported the hypothesis that the size of a firm affected a firm's cost structure. Significant differences were found among all firm size combinations (see Figure 2). The difference in costs between firms with 1-19 employees and firms with 20-49 employees ranged between 64 and 70% among the three regulatory areas. The relative differences between firms with

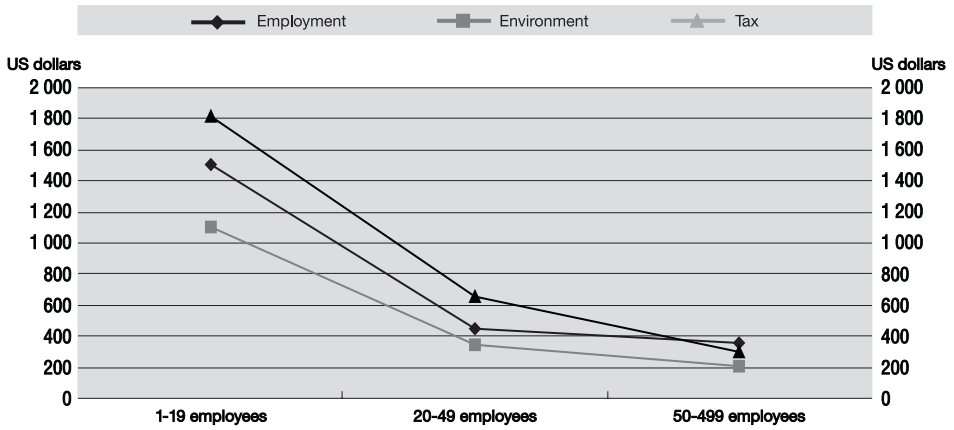
Figure 1. **Average annual compliance costs per employee by economic sector and regulatory area – average for participating countries**



Source: OECD.

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Figure 2. **Average annual compliance costs per employee by firm size and regulatory area – average for participating countries**



OECD.

10-49 employees and firms with 50-499 employees varied by policy area: 20% for employment regulations, 40% for environment regulations, and 54% for tax regulations.

Relationships between administrative costs and a "Country" regulatory framework

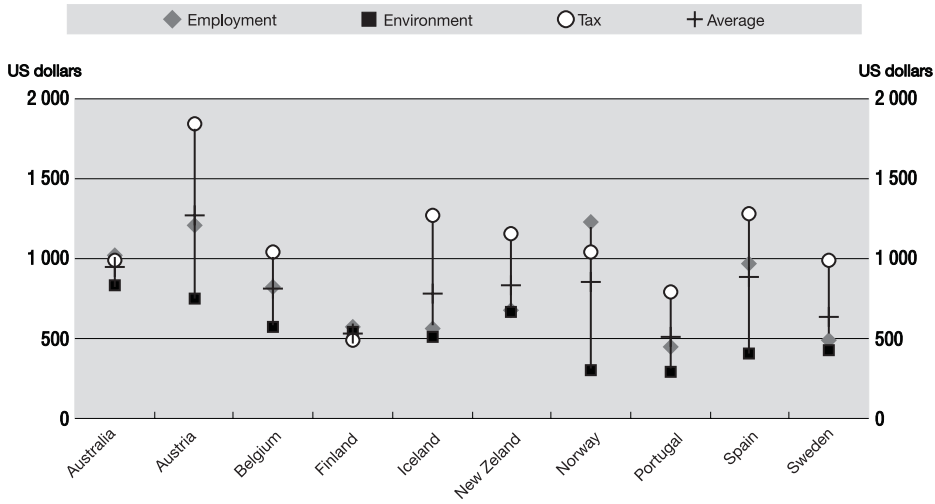
The third variable of concern, "Country", controls for all factors, other than firm size and economic sector, that influence costs (*e.g.* structure and quality of regulations, attitudes toward government). The results of an analysis of variance provide evidence that significant differences in cost structures existed among the countries surveyed and that the relative differences varied among the three regulatory areas (see Figure 3). It is probable that the quality of regulations and their implementation accounted for at least some of these differences.

In Table 2, countries have been separated into two groups of similar average costs according to the impact of **employment regulations**. In general, the cost structures between the higher and lower cost groups of countries were significantly different.[54] It is important to note that the apparent lack of statistical difference among the countries within each group may be attributed not to similarities in regulatory structures but to the quality of data underlying the cost estimates.

It is more difficult to differentiate between the costs of complying with **environmental regulations** among the participating countries. Statistically, it can be said that the average cost of compliance to environmental regulations was the same for most of the countries concerned. The three exceptions to this generalisation were

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Figure 3. **Average annual compliance costs per employee by country and regulatory area**



Source: OECD.

Australia, Austria, and Finland. The 60% difference in average costs between Australia and Sweden was significant. The average cost per employee in Austria was statistically higher than all other countries except Iceland. In addition, costs in Finland statistically differed from those in Austria, Australia, Iceland, and Norway.

Table 2. **Groups of countries according to the cost per employee of employment regulations**

Costs over US$1 000 per employee	Costs below US$1 000 per employee
Australia	Belgium
Austria	New Zealand
Norway	Finland
	Iceland
	Portugal
	Spain
	Sweden

The costs of complying with **tax regulations** varied more than the cost of complying with Employment and environment regulations. The average cost of compliance in Austria is statistically higher than seven other countries; the cost of compliance in Finland is statistically lower than all other countries; and the cost of compliance in Australia is statistically higher than three and lower than four other countries.

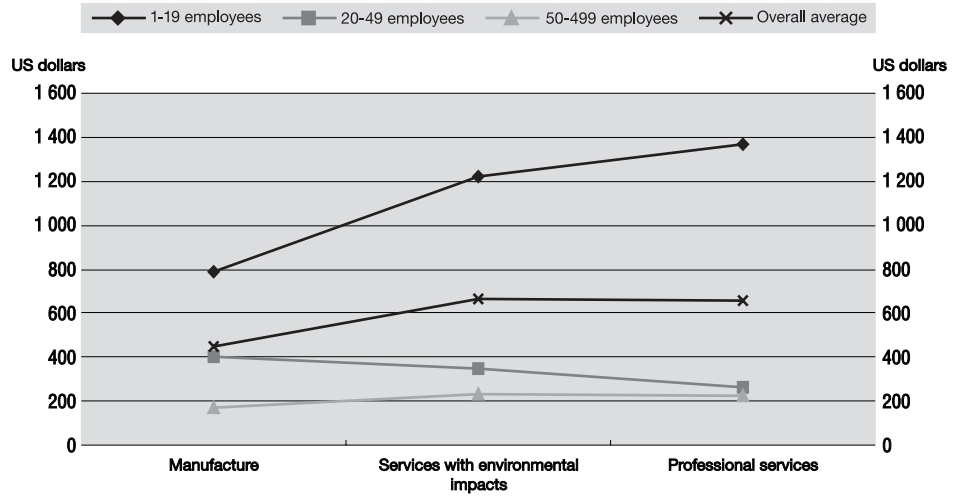
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Interaction between administrative costs and the different factors (policy area, size of firms, "country" regulatory framework

As part of the examination of factors that affect a company's cost structure, the possibility that the effect of one factor on a firm's cost of compliance is modified by a second or third factor was considered. The survey results support the hypothesis that an interactive effect existed between the size of a firm and the economic industry in which this firm was based concerning **environmental regulations** (see Figure 4) and the size of a firm and the country concerning **tax regulations** (see Figure 5).

Figure 4 indicates that the disparity of costs of environmental regulations between firms with fewer than 20 employees and larger firms was different in the manufacture sector to the two service sectors (the difference between small firms in the two service sectors was not statistically significant, thought). Moreover, the inverse was true between medium- and large-sized SMEs. Although this result is contrary to expectations, two explanations can be put forward. Firstly, environmental regulations have historically targeted larger firms in the manufacturing sector due to their more obvious impacts on the environment. As such, the underlying knowledge of environmental regulations may be higher for manufacturing than in the service sector; therefore, the investment and associated costs necessary to comprehend and comply with environmental regulations may be higher

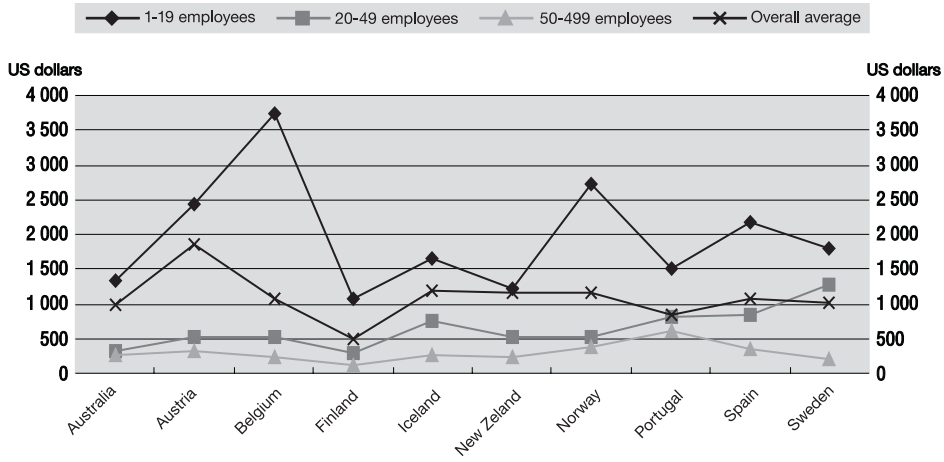
Figure 4. **The interactive effect of company size and economic industry on per employee compliance costs – environmental regulations**



Source: OECD.

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Figure 5. **The interactive effect of company size and country on per employee compliance costs – tax regulations**



Source: OECD.

for smaller firms in the service sectors. Secondly, if environmental regulations are traditionally designed for larger manufacturing firms, and thus may not be appropriately tailored to smaller firms in the service industry.

Although the "regressive effect" of company size on costs and variability of this effect by country were reported earlier (see Figure 4 of the main report and Figure 27 of Appendix I), the extent to which the policy area influences these differences was not. A significant interactive effect under tax regulations may be explained by the use of thresholds by governments – the level at which companies have to comply with regulations. An example is the turnover threshold for VAT registration. This varies widely between countries. In some countries, such as Iceland (US$1 800), Norway (US$3 600), and Belgium (US$6 500), it is relatively low. In others, such as Austria (US$25 200), it is much higher.[55] Administrative activities associated with VAT are often cited as one of the major areas of compliance cost. The threshold level at which companies have to register for VAT will therefore be a major influence on the level of compliance costs in small SMEs as turnover is positively correlated to the size of a firm.

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Model definition and ANOVA results

The purpose of this study was to test whether differences exist in total compliance costs between firm sizes and countries. The theoretical model used for the two-way analysis of variance was the following:

$$\Sigma_{ij} = \xi + \alpha_i + \beta_j + \gamma_k + \nu_{ij} + \kappa_{ik} + \lambda_{jk} + \varpi_{ijk} + \varepsilon_{ijk}$$

where:

Σ_{ij} = the cost per company

ξ = the overall mean cost per firm for the pooled samples

α_i = the mean effect for all firms in the ith firm size group, where $i = 1, 2, 3$

β_j = the mean effect for all firms in the jth country, where $j = 1, 2, \ldots, 11$

γ_k = the mean effect for all firms in the kth industry, where $k = 1, 2, 3$

ν_{ij} = the interaction effect between the ith level of size and the jth level of country

κ_{ik} = the interaction effect between the ith level of size and the kth level of industry

λ_{jk} = the interaction effect between the jth level of industry and the kth level of country

ϖ_{ijk} = the interaction effect between the ith level of size, the jth level of country, and the kth level of industry

ε_{ijk} = a random effect due to sampling, assuming $\varepsilon_{ijk} = IND(0, \tau^2)$

Assumptions:

Three assumptions that follow from $\varepsilon_{ijk} = IND(0, \tau^2)$ are:

– the treatment groups are normally distributed and, therefore the ε_{ijk} are normally distributed,

– the treatment groups have the same variance and, therefore, the ε_{ijk} will have the same variance for each i, j, k, and

– the ε_{ijk} are independent from each other and the α_i, β_j, γ_k.

These assumptions were tested[56] and found reasonable except for the independence of the error terms. A log transformation was used to validate the use of ANOVA.

The data:

After deleting missing observations and zero values (assumed to be non-responses), 5 897 observations (2 085 in employment, 1 561 in environment, and 2 251 in tax) were available for the analysis.

Four hypotheses are tested under this model:

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H_1: there are no differences due to firm size

H_2: there are no differences due to country

H_3: there are no differences due to economic industry

H_4: there are no interactions between any combinations of the explanatory variables.

Table 3. **ANOVA results**

Sector = Employment
General Linear Models Procedure
Dependent Variable: Log(Cost/employee/firm)

Source	DF	Sum of Squares	Mean Square	F Value	PR > F
Model	97	1 410.13	14.54	9.70	0.00
Error	1 987	2 977.61	1.50		
Corrected Total	2 084	4 387.74			

R-Square	C.V.	Root MSE	Log(Cost/employee/firm) Mean
0.32	21.42	1.22	5.72

Source	DF	Type ISS	Mean Square	F Value	Pr > F
IND	2	24.40	12.20	8.14	0.00
NOMB	2	919.33	459.67	306.74	0.00
PAYS	10	329.33	32.93	21.98	0.00
NOMB*PAYS	20	32.04	1.60	1.07	0.38
IND*PAYS	20	30.18	1.51	1.01	0.45
IND*NOMB	4	13.88	3.47	2.32	0.06
IND*NOMB*PAYS	39	60.96	1.56	1.04	0.40

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Sector = Environment

General Linear Models Procedure
Dependent Variable: Log(Cost/employee/firm)

Source	DF	Sum of Squares	Mean Square	F Value	PR > F
Model	95	1 235.86	13.01	6.90	0.00
Error	1 463	2 756.58	1.88		
Corrected Total	1 558	3 992.43			

R-Square	C.V.	Root MSE	C	Log(Cost/employee/firm) Mean
0.31	26.47	1.37		5.19

Source	DF	Type ISS	Mean Square	F Value	Pr > F
IND	2	19.80	9.90	5.26	0.01
NOMB	2	857.93	428.96	227.66	0.00
PAYS	10	136.34	13.63	7.24	0.00
NOMB*PAYS	20	57.55	2.88	1.53	0.06
IND*PAYS	20	59.08	2.95	1.57	0.05
IND*NOMB	4	43.07	10.77	5.71	0.00
IND*NOMB*PAYS	37	62.08	1.68	0.89	0.66

Sector = Tax

General Linear Models Procedure
Dependent Variable: Log(Cost/employee/firm)

Source	DF	Sum of Squares	Mean Square	F Value	PR > F
Model	97	2 361.40	24.34	17.00	0.00
Error	2 153	3 082.44	1.43		
Corrected Total	2 250	5 443.83			

R-Square	C.V.	Root MSE	C	Log(Cost/employee/firm) Mean
0.43	20.26	1.20		5.91

Source	DF	Type ISS	Mean Square	F Value	Pr > F
IND	2	39.88	19.94	13.93	0.00
NOMB	2	1 713.79	856.90	598.52	0.00
PAYS	10	414.29	41.43	28.94	0.00
NOMB*PAYS	20	82.97	4.15	2.90	0.00
IND*PAYS	20	29.52	1.48	1.03	0.42
IND*NOMB	4	3.92	0.98	0.68	0.60
IND*NOMB*PAYS	39	77.04	1.98	1.38	0.06

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Appendix VII

Detailed tables of the survey's results

Table 1. **Main reasons for the increase in the compliance costs with regulations by country**

Table 2. **Indirect costs created by Employment regulations, by question and by country**

Table 3. **Questions on the quality of regulations, by regulations and by country**

Table 4. **Questions on the quality of administration or regulations, by regulations and by country**

Table 5. **Questions on the quality of contacts with government authorities to obtain decisions or permissions**

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Table 1. **Main reasons for the increase in the compliance costs with regulations by country**

		Increase in the complexity of existing regulations	Introduction of new regulations	Increase in the compliance of regulations	Expansion of your company's activities	other
Employment	Australia	65.6%	16.6%	7.0%	9.6%	1.3%
	Austria	29.4%	27.9%	25.0%	10.3%	7.4%
	Belgium	43.8%	17.9%	25.2%	10.2%	2.9%
	Finland	32.7%	23.8%	12.9%	25.9%	4.8%
	Iceland	41.7%	19.4%	19.4%	15.5%	3.9%
	Mexico	34.8%	12.3%	30.4%	20.3%	2.2%
	New Zealand	45.5%	13.9%	26.7%	11.9%	2.0%
	Norway	n.a.	n.a.	n.a.	n.a.	n.a.
	Portugal	36.4%	19.7%	27.3%	15.2%	1.5%
	Spain	26.4%	38.5%	9.9%	12.1%	13.2%
	Sweden	50.0%	7.9%	22.2%	15.9%	4.0%
Environment	Australia	65.5%	12.4%	7.2%	11.3%	3.6%
	Austria	34.5%	23.6%	32.7%	3.6%	5.5%
	Belgium	24.0%	32.9%	29.8%	7.8%	5.4%
	Finland	13.9%	32.4%	29.6%	15.7%	8.3%
	Iceland	16.7%	26.4%	51.4%	2.8%	2.8%
	Mexico	25.2%	19.7%	31.5%	22.0%	1.6%
	New Zealand	35.6%	20.0%	31.1%	13.3%	0.0%
	Norway	n.a.	n.a.	n.a.	n.a.	n.a.
	Portugal	51.2%	4.7%	27.9%	11.6%	4.7%
	Spain	26.3%	44.4%	16.2%	8.1%	5.1%
	Sweden	17.0%	34.0%	37.7%	6.6%	4.7%
Tax	Australia	66.5%	12.5%	8.3%	11.2%	1.6%
	Austria	43.8%	33.8%	13.8%	7.5%	1.3%
	Belgium	46.7%	19.5%	21.0%	8.6%	4.3%
	Finland	42.6%	31.9%	1.4%	19.9%	4.3%
	Iceland	44.4%	26.5%	6.8%	19.7%	2.6%
	Mexico	47.2%	13.0%	27.3%	11.2%	1.2%
	New Zealand	39.0%	24.0%	14.0%	21.0%	2.0%
	Norway	n.a.	n.a.	n.a.	n.a.	n.a.
	Portugal	60.9%	5.8%	10.1%	17.4%	5.8%
	Spain	30.6%	34.1%	7.1%	16.5%	11.8%
	Sweden	31.9%	50.7%	5.1%	9.4%	2.9%

n.a. = non available.

Note: No account is taken of no response and no opinion responses

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Table 2. **Indirect costs created by Employment regulations – by question and by country**

		Increase wage rates	Increase non-wage labour costs	Create difficulties in matching production and demand	Reduce labour productivity	Impede changes to working practices	Slow down development of new products and services	Create difficulties in making staff reductions	Create difficulties in hiring new staff	Reduce the attractiveness of entering new markets
Australia	High	21%	36%	24%	27%	24%	26%	44%	37%	28%
	Medium	16%	26%	25%	23%	30%	24%	23%	27%	23%
	Low	56%	33%	36%	39%	36%	37%	27%	32%	38%
	None	6%	5%	14%	10%	9%	13%	5%	4%	11%
Austria	High	22%	34%	21%	19%	21%	23%	31%	27%	20%
	Medium	27%	23%	20%	22%	34%	14%	21%	19%	13%
	Low	36%	34%	35%	36%	32%	35%	24%	32%	26%
	None	15%	10%	23%	24%	14%	28%	23%	21%	40%
Belgium	High	37%	32%	28%	21%	31%	16%	33%	40%	23%
	Medium	25%	29%	26%	24%	21%	22%	22%	20%	20%
	Low	31%	31%	31%	34%	31%	34%	29%	30%	28%
	None	7%	9%	15%	22%	17%	27%	17%	10%	28%
Finland	High	29%	47%	29%	30%	29%	18%	47%	54%	18%
	Medium	24%	26%	19%	21%	21%	15%	17%	18%	20%
	Low	35%	22%	36%	36%	36%	45%	26%	21%	41%
	None	12%	5%	16%	13%	15%	22%	11%	7%	20%
Iceland	High	17%	28%	14%	12%	20%	12%	18%	15%	11%
	Medium	19%	26%	13%	16%	17%	15%	15%	14%	10%
	Low	46%	37%	41%	50%	38%	40%	42%	41%	47%
	None	18%	10%	33%	22%	25%	33%	25%	30%	33%
Mexico	High	32%	38%	52%	44%	35%	51%	41%	47%	48%
	Medium	43%	34%	22%	25%	31%	18%	21%	19%	20%
	Low	24%	27%	25%	29%	33%	31%	37%	33%	32%
	None	2%	1%	1%	1%	1%	1%	1%	1%	1%

Table 2. **Indirect costs created by Employment regulations – by question and by country** (*cont.*)

		Increase wage rates	Increase non-wage labour costs	Create difficulties in matching production and demand	Reduce labour productivity	Impede changes to working practices	Slow down development of new products and services	Create difficulties in making staff reductions	Create difficulties in hiring new staff	Reduce the attractiveness of entering new markets
Norway	High	20%	26%	17%	19%	14%	14%	29%	22%	16%
	Medium	23%	32%	12%	21%	19%	12%	21%	20%	18%
	Low	48%	38%	49%	47%	58%	52%	37%	42%	45%
	None	9%	4%	22%	13%	9%	22%	13%	16%	21%
Portugal	High	20%	27%	31%	25%	20%	20%	45%	35%	22%
	Medium	23%	22%	18%	11%	24%	12%	17%	20%	16%
	Low	45%	43%	42%	55%	48%	46%	27%	33%	41%
	None	12%	8%	10%	10%	8%	23%	11%	12%	20%
Spain	High	13%	26%	18%	11%	17%	14%	26%	24%	10%
	Medium	23%	23%	25%	18%	13%	9%	10%	18%	16%
	Low	42%	37%	39%	37%	35%	41%	31%	32%	39%
	None	22%	14%	18%	34%	35%	37%	32%	26%	35%
Sweden	High	33%	50%	54%	39%	46%	28%	64%	65%	44%
	Medium	18%	24%	19%	24%	24%	23%	13%	16%	18%
	Low	35%	20%	16%	28%	21%	32%	17%	14%	23%
	None	14%	5%	11%	10%	9%	18%	6%	5%	15%

Note: No account is taken of no response and no opinion responses.

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Table 3. **Questions on the quality of regulations – by regulations and by country – Percentage of disagree answers**

	Regulatory Area	Regulations are easy to understand	Regulations achieve their objectives as simply as possible	Regulations are flexible enough to be implemented efficiently by businesses	Changes in regulations are predictable	Regulations are consistent with one another	Despite the number of regulations, it is still feasible to comply fully
Australia	Employment	69	89	88	75	77	62
	Environment	59	84	82	63	67	75
	Tax	68	94	93	73	75	69
Austria	Employment	70	72	76	69	68	75
	Environment	61	70	71	60	57	62
	Tax	79	74	84	78	84	70
Belgium	Employment	75	85	84	72	78	78
	Environment	66	74	76	64	66	71
	Tax	75	74	79	82	83	65
Finland	Employment	72	83	84	68	54	42
	Environment	59	65	64	71	53	48
	Tax	77	78	83	78	67	42
Iceland	Employment	35	59	57	45	41	35
	Environment	34	56	52	34	51	45
	Tax	51	64	60	62	46	28
Mexico	Employment	32	41	53	55	47	26
	Environment	30	35	44	44	40	28
	Tax	62	62	66	69	61	35
New Zealand	Employment	62	72	74	68	64	64
	Environment	64	75	73	63	61	49
	Tax	72	74	76	66	63	42
Norway	Employment	63	72	73	76	55	54
	Environment	55	58	56	73	50	58
	Tax	81	80	71	84	56	39

Table 3. **Questions on the quality of regulations – by regulations and by country – Percentage of disagree answers** (*cont.*)

	Regulatory Area	Regulations are easy to understand	Regulations achieve their objectives as simply as possible	Regulations are flexible enough to be implemented efficiently by businesses	Changes in regulations are predictable	Regulations are consistent with one another	Despite the number of regulations, it is still feasible to comply fully
Portugal	Employment	51	60	69	48	56	70
	Environment	35	59	56	34	53	73
	Tax	59	60	78	64	58	65
Spain	Employment	46	57	61	67	52	36
	Environment	39	54	58	50	38	37
	Tax	60	59	65	69	47	20
Sweden	Employment	77	90	88	84	73	73
	Environment	52	70	70	77	61	72
	Tax	77	84	88	88	76	61

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Table 4. **Questions on the quality of administration or regulations by regulations and by country**
Percentage of disagree answers

	Regulatory Area	It is not clear which agency to contact	It is not easy to contact responsible agencies	One does not get the same view no matter who one contacts	The information one gets is not responsive to one's needs
Australia	Employment	76	82	82	67
	Environment	71	76	81	47
	Tax	55	76	85	55
Austria	Employment	48	58	70	52
	Environment	60	44	78	50
	Tax	40	44	73	44
Belgium	Employment	67	60	55	45
	Environment	59	51	52	44
	Tax	53	49	62	39
Finland	Employment	52	65	73	46
	Environment	56	54	65	42
	Tax	31	52	65	42
Iceland	Employment	47	50	69	40
	Environment	58	60	80	54
	Tax	40	50	78	47
Mexico	Employment	35	45	52	42
	Environment	48	52	50	42
	Tax	35	53	64	49
New Zealand	Employment	69	77	78	59
	Environment	67	70	70	59
	Tax	39	80	63	46
Norway	Employment	53	61	78	52
	Environment	54	55	77	47
	Tax	46	56	78	50
Portugal	Employment	50	66	61	52
	Environment	63	65	59	58
	Tax	54	65	72	53
Spain	Employment	43	65	67	39
	Environment	45	56	62	36
	Tax	44	58	75	30
Sweden	Employment	58	66	79	62
	Environment	51	62	72	55
	Tax	41	66	73	52

Note: No account is taken of no response and no opinion responses.

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Table 5. **Questions on the quality of contacts with government authorities to obtain decisions or permissions**
Percentage of disagree answers

	Regulatory Area	Officials do not give definite answers	The response of the government authorities is not given within a reasonable time	It is not clear who is responsible for the decisions	The process for appeals and complaints is not clear	The process is inflexible and bureaucratic	Decisions are not consistent and predictable over time and amongst similar businesses	Additional or unexpected payments are required
Australia	Employment	75	53	84	77	86	78	67
	Environment	74	75	79	60	84	78	69
	Tax	64	67	83	72	78	75	70
Austria	Employment	49	51	67	58	80	67	56
	Environment	57	49	68	57	81	69	45
	Tax	48	35	61	58	83	79	55
Belgium	Employment	45	42	78	65	92	70	60
	Environment	43	47	70	58	85	67	75
	Tax	43	47	67	47	85	75	62
Finland	Employment	54	66	77	67	91	72	45
	Environment	51	64	67	55	85	67	45
	Tax	56	66	69	54	84	73	46
Iceland	Employment	50	61	56	60	86	58	54
	Environment	64	74	70	74	90	74	67
	Tax	55	66	46	51	91	69	56
Mexico	Employment	50	54	53	51	71	55	49
	Environment	54	56	57	56	69	46	44
	Tax	65	54	59	59	81	55	46
New Zealand	Employment	65	61	81	68	94	71	71
	Environment	68	63	80	54	90	68	74
	Tax	53	50	74	64	89	65	68
Norway	Employment	74	79	70	44	92	73	34
	Environment	61	65	62	47	47	85	46
	Tax	68	60	63	44	85	71	48

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Table 5. **Questions on the quality of contacts with government authorities to obtain decisions or permissions** (*cont.*)
Percentage of disagree answers

	Regulatory Area	Officials do not give definite answers	The response of the government authorities is not given within a reasonable time	It is not clear who is responsible for the decisions	The process for appeals and complaints is not clear	The process is inflexible and bureaucratic	Decisions are not consistent and predictable over time and amongst similar businesses	Additional or unexpected payments are required
Portugal	Employment	55	62	66	73	85	63	49
	Environment	58	65	75	87	88	69	48
	Tax	57	72	69	77	93	59	67
Spain	Employment	60	47	64	39	90	57	42
	Environment	57	50	61	41	86	45	48
	Tax	57	47	67	30	90	51	39
Sweden	Employment	70	73	76	64	93	82	66
	Environment	59	65	70	67	90	74	58
	Tax	69	64	69	59	94	87	54

Note: No account is taken of no response and no opinion responses.

Appendix VIII

Economic sectors used in the survey sample

Agriculture, hunting and forestry, Mining and Quarrying were not included in the sample.

Table 1. **Manufacturing (industry) and resource oriented activities**

	ISIC rev. 2	ISIC rev. 3	NACE rev. 1
Fishing	13	B 05	B 05
Total manufacturing	3	D 15 to 37	DA and DN 15 to 37
Construction	5; 831; 9 512	F 45	F 45

Table 2. **Services with important impacts on the environment**

	ISIC rev. 2	ISIC rev. 3	NACE rev. 1
Electricity, gas and water supply	4	E 40 to 41	E 40 to 41
Wholesale, retail trade, repair of motor vehicles, cycles, etc.	6	G 50 to 52	50 to 52
Hotels and restaurants	63; 7 111	H 55	H 55
Transport, storage and communications	7; 9 413; 9 599	I 60 to 64	I 60 to 64

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Table 3. **Services without important impacts on the environment**

	ISIC rev. 2	ISIC rev. 3	NACE rev. 1
Financial intermediation	81; 82	J 65 to 67	J 65 to 67
Real estate, renting and business activities	831; 833	K 70 to 74	K 70 to 74
Renting of machinery and equipment without operator and of personal and household goods	62; 7 116; 7 123; 7 132; 833; 941; 949	71	71
Computer and related activities	8 323; 8 325; 9 519	72	72
Research and development	8 324; 932	73	73
Other business activities	112; 8 321; 8 322; 8 324; 8 325; 8 329	74	74
Legal, accounting, book-keeping and auditing activity; tax consultancy; market research & public opinion polling; business and management consultancy	112; 8 321; 8 322; 8 325; 8 329		
Architectural, engineering and other technical activities; technical testing and analysis	8 324		
Advertising	8 325; 8 329		
Education	931; 9 591	M 80	M 80
Health and social work	931; 9 331; 9 332; 934	N 85	N 85
Other community, social and personal service activities	8 329; 92; 931; 935; 939; 94; 959	90 to 93	90 to 93

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NOTES

1. For a general overview of the regulatory environment and reform in OECD countries, see OECD (1997), *The* OECD *Report on Regulatory Reform*, Paris.
2. Brunetti A., Kisunko G. and Weder B. (1997) *How Businesses See Government – Responses from Private Sector Surveys in 69 Countries*, World Bank Paper, Washington DC.
3. UNICE (1995) *The* UNICE *Regulatory Report – Releasing Europe's Potential Through Targeted Regulatory Reform*.
4. The OECD PUMA Working Party on Regulatory Management and Reform has long recognised this, and has been working on the issue of regulatory costs for the last 10 years (see *www.oecd.org/puma*). In particular, see Scott Jacobs *et al.*, "Regulatory Quality and Public Sector Reform" in OECD (1997) *Report on Regulatory Reform, Vol.* II: *Thematic Studies*, Paris, pp. 191-248.
5. In addition, some researchers have identified the presence of "psychological" burdens (see Godwin, M., 1995) in Sandford, C (ed.) *Tax Compliance Costs: Measurement and Policy*, Fiscal Publications, Bath. These may occur if managers experience higher levels of stress or pressure as a result of the need to comply with regulations. The OECD survey does not attempt to take these into account.
6. A number of studies have tried to identify the presence of such costs and a small number have made attempts at quantification. See, for example, OECD, 1999, *Regulatory Reform for Smaller Firms* STI, Paris and OECD (1997), *Regulation and Industrial Competitiveness: A Perspective for Regulatory Reform*, Paris.
7. See for instance, Sandford C. (ed) (1995), *op. cit.*
8. See for example the work of Thomas Hopkins (1995), A *Survey of Regulatory Burdens in the* USA, Small Business Administration, Washington and EIM (1995), *The European Observatory for* SMEs: *Third Annual Report*.
9. See Maarten Allers (1995), *Tax Compliance Costs in the Netherlands*' in C. Sandford, (ed).
10. For further discussion on small *vs.* large scale surveys, see Evans, Chris *et al.* (2001), *Tax Compliance Costs: A Festschrift for Cedric Sandford*, Prospect Media Pty Ltd., Australia.
11. SMEs are those firms that employ between one and 499 employees.
12. The survey tried to measure the information technology cost of effective compliance with formalities and other administrative burdens, but the high non-response or no opinion rate left the reliability of the results open to doubt.
13. A database of all the results is available *at www.oecd.org/puma/regref/*.
14. The answers to quantitative questions in the Mexican survey were not used, due to codification problems.
15. However, the regressive effect in the survey may be upward biased. As is noted earlier, the survey respondents of the smallest SMEs (*i.e.* a single manager) are more likely to be aware of all regulatory costs than the respondents of bigger firm.

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16. The Business Sector GDP is a standard measure calculated as follows: total GDP minus compensation of employees, commodity taxes net, and consumption of fixed capital for General Government.

17. Though in some markets, companies will be able to shift these costs to consumer, and thus the impact of administrative compliance may shift to price increases.

18. Data from Goldman Sachs shows that the average, pre-tax, net margin on sales achieved by publicly quoted European companies in 1998 was between 10% and 11%. In some years, however, the margin on sales has been half this level. *Source*: Goldman Sachs Investment Research, 1998.

19. UNICE (1995), *The* UNICE *Regulatory Report – Releasing Europe's Potential through Targeted Regulatory Reform*.

20. ACEA (1994), *White Paper on Industrial Restructuring*. UNICE, 1995, *The* UNICE *Regulatory Report – Releasing Europe's Potential through targeted Regulatory Reform*.

21. Jacobs, Scott *et al*. (1997), "Regulatory Quality and Public Sector Reform," in OECD (1997), *op. cit*. Other studies of regulatory quality are in specific policy areas, for example: Business Decisions Limited (1997), *Benchmarking the Competitiveness of Europe's Animal Health Sector*, FEDESA.

22. . OECD (1995), *Recommendation of the* OECD *on Improving the Quality of Government Regulation*, Paris. Also, OECD (1997), *Report to Ministers on Regulatory Reform: Synthesis*, Paris.

23. One of the statements included in the questionnaire "the process is flexible and not bureaucratic" was excluded from the analysis as it was deemed to be insufficiently objective.

24. See *www.oecd.org//dsti/sti/industry/smes/act/Bologna/bologna_charter.htm*

25. UNICE (1995), UNICE *Regulatory Report – Releasing Europe's Potential Through Targeted Regulatory Reform*. Brunetti A., Kisunko G. and Weder B. 1997, *op. cit*.

26. A database of all the results is available at *www.oecd.org/puma/regref/*

27. Based on the OECD (1995), *Recommendation of the Council of the* OECD *on Improving the Quality of Government Regulation* (adopted on 9 March 1995).

28. The environmental and tax questionnaires are similar to the employment questionnaire and can be found in the following *www.oecd.org/puma/regref/*

29. The definition of SME is the one used by the Working Party on Small and Medium-sized Enterprises of the OECD's Science, Technology, and Industry Directorate.

30. Companies without any employees (sole proprietors) were excluded from the sample, because of concerns about the likely low level of response.

31. It should be noted that all cost estimates were weighted by the distribution of SMEs by size and industry based on population data provided by the countries. See Appendix IV for the distribution of SME within each country.

32. Due to a different weighting system, the Austrian Institute for Industrial Research found to Austria a lower total administrative compliance cost (105 381 millions ATS) than the calculated in this report (135 177 millions ATS) using the same data base.

33. Although, is it important to remember that the size of the SME population in some countries and in the sample make the comparisons difficult between these countries and the others.

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34. See, for example, UNICE (1995), *The* UNICE *Regulatory Report – Releasing Europe's Potential through targeted Regulatory Reform*.
35. See Brunetti *et al.* (1997), *op. cit.*, p. 17.
36. Care needs to be taken, however, in the interpretation of these results, as sample sizes in some sub-groups were quite small.
37. Bureau Fédéral du Plan, *La Simplification des procédures administratives pesant sur les entreprises*, Working Paper No. 4-00.
38. Ministère de l'Industrie, de la Poste et des Telecommunications (1996), *Les* PMI *et la simplification administrative*.
39. Mungall A. and A. Schoenenberger (1998),*Importance et effets de la réglementation dans les branches touristiques*, Swiss Federal Office of Economic Development and Employment.
40. Hopkins T. (1995), A *Survey of Regulatory Burdens*, US Small Business Administration, Washington DC.
41. The European Observatory for SMEs (1995), *Third Annual Report*.
42. Hulshoff H., A. Nijsen and H. Visee (1997), *Administrative Lasten in Dienst Nemen Werknemers*, VNO-NCW.
43. British Chambers of Commerce (1995), BCG *Survey – Regulation in Smaller Firms*.
44. Mungall A. and A. Schoenenberger (1998), *Importance et effets de la réglementation dans les branches touristiques*, Swiss Federal Office of Economic Development and Employment.
45. Microeconomic Applications (1999), *The Impacts of Federal Regulations, Paperwork and Tax Requirements on Small Business*, US Small Business Administration, Washington DC.
46. Thomas D Hopkins (1995), *Profiles of Regulatory Costs*, US Small Business Administration, Washington DC.
47. The European Observatory for SMEs (1995), *Third Annual Report*.
48. British Chambers of Commerce, 2000, BCG *Burdens Barometer – Cut Red Tape*.
49. UNICE (2000), *Stimulating Creativity and Innovation in Europe: The* UNICE *Benchmarking Report* 2000.
50. SAF (2000), *Skall det ta* 18 *eller* 375 *dagar att oppna restaurang* I *Sveriges kommuner*.
51. Australian Bureau of Industry Economics (1996), *Business Licences – International Benchmarking*, Productivity Commission, Canberra.
52. The tax and environmental questionnaires were constructed in a similar way and can be found at *www.oecd.org/puma/regref/*.
53. The measure of the per cent of variation in costs explained by each model, the R-square, ranged from 0.31 in the environment model to 0.43 in the tax model.
54. One exception is Spain, where the variance of the cost estimate is so high that the per employee cost in Spain statistically differs only from those in Norway and Sweden.
55. OECD statistics cited in Irish National Competitiveness Council (1998), *Annual Competitiveness Report* 1998, Dublin.
56. The assumption of normality was tested by plots of the cumulative percentages and was found to be sufficiently normal. The assumption of homogeneity of variances was tested through a Levene test of homogeneity. The assumption of independence was tested by plotting the sample means against the sample variances.

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