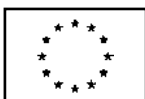


SMEs in Europe – Candidate countries

Data 2001



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Luxembourg: Office for Official Publications of the European Communities, 2003

ISBN 92-894-4965-9

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FOREWORD

Small and medium-sized enterprises (SMEs) are at the heart of the strategy launched by the European Council in Lisbon in March 2000, with the objective of the EU becoming the most competitive and dynamic, knowledge-based economy in the world, capable of sustainable economic growth, more and better jobs and greater social cohesion. With the forthcoming enlargement of the EU, these ambitious goals will also be extended to the new Member States.

In the follow-up to Lisbon, the General Affairs Council adopted a European Charter for Small Enterprises, which was endorsed by the Feira European Council in June 2000. The Charter recognised that small businesses were the backbone of Europe's economy and the key to future competitiveness. The Charter also called upon the Member States and the European Commission to take action to support and encourage small enterprises in ten key areas⁽¹⁾. The candidate countries endorsed this Charter in Maribor (Slovenia) on 23 April 2002. They also agreed to take part in the reporting on the implementation of the Charter⁽²⁾.

This important political agenda has further increased the demand for data on the candidate countries, particularly in the field of structural business statistics, broken down by size-class, in order to decide on and to assess policies in this field. Eurostat, in collaboration with the national statistical authorities of the candidate countries, has made a special effort to provide complete and comparable official statistics on business statistics in an enlarged European Union. This publication is further evidence of the valuable work that has been carried out and forms an important contribution to the evaluation of the development of SMEs in the candidate countries.

This is the second in a series of Detailed Tables publications relating to SMEs - the first focused on 'SMEs in Europe - competitiveness, innovation and the knowledge-driven society'. This second edition focuses on the candidate countries, and is released to coincide with the run-up to May 2004, when 10 new Member States should join the European Union. It aims to present a snapshot regarding the structure, performance and conduct of SMEs in the candidate countries. Quantitative information focuses mainly on structural business statistics (SBS), although this is complemented by data from other Eurostat sources, such as the Labour Force Survey (LFS) and the Labour Costs Survey (LCS).

(1) For more information see: http://europa.eu.int/comm/enterprise/enterprise_policy/charter/index.htm

(2) Implementation reports on the European Charter for Small Enterprises in the acceding and candidate countries available at: http://europa.eu.int/comm/enterprise/enterprise_policy/charter/charter-2004_cc.htm

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**SMEs in Europe -
candidate countries**

This publication has been produced by unit D3 of Eurostat, responsible for structural business statistics. The opinions expressed are those of the individual authors alone and do not necessarily reflect the position of the European Commission.

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INTRODUCTION

On 1 May 2004, the EU will experience the biggest enlargement in its history, with the accession of 10 new countries from Eastern and Mediterranean Europe, namely the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia. For these countries, this date will mark a milestone, particularly for those countries from Central and Eastern Europe, 15 years after the fall of the Berlin wall. Indeed, considerable efforts have been made with respect to structural reforms, notably aimed at achieving economic stability. Accession negotiations are also engaged with Bulgaria and Romania, with the objective of a formal accession in 2007, while negotiations with Turkey are set to begin during the course of 2004.

Historically, the candidate countries can be separated into two groups: on the one hand, the three Mediterranean countries of Cyprus, Malta and Turkey, and on the other hand, the ten Central and Eastern European Countries (CEECs), of which Slovenia is a special case. The three Mediterranean countries have historically displayed an enterprise structure that resembles that witnessed in the EU and they have operated within the framework of a relatively open, market economy. On the other hand, many of the CEECs have experienced changes in the structure of their respective business enterprise sectors over the last decade, as markets have been opened-up rapidly to global competition.

In most of the CEECs, the economic system in vigour until the late 1980s and early 1990s was based on the multi-annual central planning of production, while private property was limited. In addition, Comecon (Council for Mutual Co-operation) co-ordinated the various national production plans of its members and arranged trade between countries within the framework of a regional specialisation of industrial production. As a consequence, the CEECs were generally dominated by very large-scale industrial enterprises, with limited activity in the services sector and a high number of subsistence farmers. The specialisation of various countries appeared to be more the result of political decisions, rather than market-driven.

With the break-up of Comecon and the adoption of a market-based economic approach, most CEECs underwent profound structural change. This was notably reflected in a growing importance for SMEs, as well as a structural shift towards the services sector of the economy. Many new SMEs were created from the break-up of former state enterprises or from the mass privatisation of existing enterprises (for example, retail trade outlets). A large number of SMEs also came into 'official' existence following their conversion from the unofficial economy, which had progressively developed in some CEECs on the margin of planned economic systems. This historical background is an important key to understanding the differences in the structure of the economies between the CEECs and the EU.

THE ROLE OF SMEs

In the Central and Eastern European countries, the transition from a centrally planned to a market economy has translated into a process of liberalisation and privatisation of most economic structures, that has been accompanied by widespread industrial restructuring. A significant SME base has developed, although part of this development has been a shift from formerly state-owned enterprises (many of which were split-up).

The countries also engaged in a modernisation of their institutional, legal and administrative environment, and the gradual adoption of the Community acquis. At the heart of the restructuring process was the development of entrepreneurship and competitiveness, areas where SMEs are thought to be key actors. Indeed, SMEs are considered to be the backbone of the business economy, accounting for more than 99 % of all enterprises, two thirds of employment and more than half of the value added generated in both the EU and the 10 acceding countries. In addition, SMEs are thought to stimulate the competitive dynamics of the economy, forcing other companies to increase their efficiency and innovate. New organisational patterns, under which large enterprises often operate through international production and sub-contracting networks have also enhanced the importance of SMEs, while out-sourcing and downsizing have created new opportunities for SMEs.

A DEFINITION OF SMES

On 6 May 2003 the Commission adopted a new Recommendation 2003/361/EC regarding its definition of SMEs (replacing Recommendation 96/280/EC). The revision increased legal certainty, while reducing possibilities of its circumvention to ensure that only enterprises facing the specific handicaps of SMEs would be considered as SMEs, particularly with regard to state aid, Structural Funds or research and development (R&D) programmes. The Recommendation provides a definition of small and medium-sized enterprises as follows:

- Micro enterprises: employ fewer than 10 persons and have either an annual turnover not exceeding EUR 2 million, or an annual balance-sheet total not exceeding EUR 2 million;

- Small enterprises: employ fewer than 50 persons and have either an annual turnover not exceeding EUR 10 million, or an annual balance-sheet total not exceeding EUR 10 million;

- Medium-sized enterprises: employ fewer than 250 persons and have either an annual turnover not exceeding EUR 50 million, or an annual balance-sheet total not exceeding EUR 43 million.

Various rules on enterprise independence exist, whereby SMEs that are controlled by larger enterprises should not qualify for aid directed at independent SMEs.

This Recommendation concerns the definition of micro, small and medium-sized enterprises in Community policies applied within the European Economic Area and is addressed to the Member States, the European Investment Bank and the European Investment Fund. It will be applied as of 1 January 2005.

Throughout this publication every attempt has been made to standardise the presentation of data according to the employment criteria in these definitions. However, it may be the case that micro and small enterprises are not surveyed. When this occurs, the definition of these size classes may vary from the standardised definition (for example, micro enterprises may be defined as enterprises with 5-9 persons employed, instead of 1-9 persons employed). In the event that non-standard size classes are used, every attempt has been made to ensure that tables and figures are clearly footnoted with the additional information on size class thresholds.

For more detailed methodological notes for each of the specific data sources used in this publication please refer to the final chapter of this publication.

For more information, please consult:
http://europa.eu.int/comm/enterprise/enterprise_policy/sme_definition/index_en.htm

Candidate countries have recognised the important role of SMEs and the first report on the implementation of the European Charter for Small Enterprises shows that small enterprises are ranked highly among the political priorities of these countries⁽¹⁾. For example, entrepreneurship and education are being fostered, while efforts are being made to reduce the administrative burdens for enterprises, and bankruptcy laws are being reformed to resemble those already in place within the EU. However, access to finance and the propensity to innovate remain problem areas for SMEs in the candidate countries, although these difficulties are, to a large extent, shared with SMEs in the EU.

(1) Implementation reports on the European Charter for Small Enterprises in the acceding and candidate countries available on
http://europa.eu.int/comm/enterprise/enterprise_policy/charter/charter-2004_cc.htm

EUROPEAN CHARTER FOR SMALL ENTERPRISES

At a Community level, many policies take into consideration the special needs and concerns of SMEs. The European Charter for Small Enterprises, endorsed by the Feira European Council in June 2000 is at the heart of the strategy developed by the European Commission in support of SMEs. It calls upon Member States and the European Commission to take action in a number of areas to support and encourage small enterprises. The European Commission has undertaken to report annually on the progress being made towards these goals through an implementation report. For more information on the Charter, please consult:

http://www.europa.eu.int/comm/enterprise/enterprise_policy/charter/index.htm

A practical follow up to the Charter was made, when, on 20 December 2000, the European Council adopted the Multiannual programme for enterprise and entrepreneurship 2001-2005. A full report of activities carried out by the Commission within the framework of this programme is available at:

http://europa.eu.int/comm/enterprise/entrepreneurship/promoting_entrepreneurship/index.htm

In addition, on 21 January 2003, the Commission adopted a series of documents outlining policy towards small and medium-sized enterprises across Europe. The so-called 'SME package' analyses how the Member States, the candidate countries and the European Commission are implementing the principles embodied in the European Charter for Small Enterprises. For more information, see:

http://europa.eu.int/comm/enterprise/enterprise_policy/sme-package/index.htm

SME ENVOY

In December 2001, the Commission nominated an SME Envoy, a Director in charge of the promotion of entrepreneurship and SMEs within the Enterprise Directorate-General. The function of the SME Envoy is to be the interface between the Commission's administration and the SME business community, considering their specific interests and needs in EU programmes and policies: a 'watchdog function'. Furthermore, the SME Envoy's functions aim to strengthen contacts between SMEs and other Commission services whose actions can have an impact on SMEs. Outside the Commission, the SME Envoy is a visible contact person for small or medium-sized enterprises and SME organisations.

ACCESS TO FINANCE

On 1 December 2003, the Commission issued a Communication on the access to finance of small and medium-sized enterprises (COM(2003) 713 final), reviewing the actions taken by the Commission and the Member States in this field since 2001. Improving access to finance for SMEs is an important aspect of fostering entrepreneurship. Measures have focussed on three facets. Firstly, the setting up of financial instruments to support SME financing, notably via the European Investment Fund, for example, the Start-up Scheme of the European Technology Facility (ETF) investing in funds providing risk capital to smaller businesses, the SME Guarantee Facility, designed to facilitate access to debt finance for small enterprises, or the Seed Capital Action, supporting the recruitment of specialised staff by seed funds, incubators or similar organisations. Secondly, facilitating bank lending, for example by providing loan guarantees. Finally, to foster sources for equity financing, by the development of venture capital markets, promoting the possibilities offered by business angels networks and encouraging fiscal measures in favour of retained earnings. For more information on this topic, please consult:

<http://europa.eu.int/comm/enterprise/entrepreneurship/financing/index.htm>.

STRUCTURAL FUNDS POLICIES

Structural Funds are the European Union's main instrument for financial support to SMEs. Some EUR 16 billion will be spent on projects for SMEs in the period 2000-2006, representing 11 % of the total Structural Funds budget. Considering the fact that the Structural Funds contribution to investments in enterprises must not exceed 35 % of eligible costs in Objective 1 regions (regions whose development is lagging behind) and 15 % in Objective 2 regions (regions experiencing structural difficulties), Community aid should mobilise at least an equivalent amount of national funds.

The main area of activity of structural funds are investment in physical capital (plant and equipment), measures in favour of shared business services (business estates, incubator units, promotional services, networking, conferences, trade fairs), business advisory services (information, business planning, consultancy services, marketing, management, design, internationalisation) or investment in environmentally friendly technologies.

ENLARGEMENT AND PRE-ACCESSION ACTIVITIES

Since the start of the transition process in the Central and Eastern European countries, the European Commission has developed co-operation ties, firstly with a view to accompany the political and socio-economic transition, and secondly to prepare the candidate countries for EU accession. Financial support to non-agricultural SMEs was provided mainly from the Phare programme. There were four main levels of action: adjusting and improving policies, rules and legislation; improving the business environment by investing in both physical and knowledge infrastructure; strengthening business agencies and associations; and some direct support to enterprises.

The 13 candidate countries endorsed the European Charter for Small Enterprises on 23 April 2002 at the 'CC BEST Conference' in Maribor, Slovenia. The Commission has also been preparing for enlargement by opening-up the Multiannual programme for enterprise and entrepreneurship to the candidate countries, in line with a pre-accession strategy to provide preparation for accession by familiarising the candidate countries with the European Union's policies and working methods.

1.

CANDIDATE COUNTRIES - AN OVERVIEW

The data presented in this section is provided as a background to that found in chapters 2 and 3. This chapter focuses on a broad range of indicators that aim to present the reader with an idea of the structural differences between the EU and the candidate countries, before examining in more detail business statistics broken down by size class.

1.1 DEMOGRAPHY

When the European Union welcomes 10 new Member States on the 1 May 2004, it will see its total population and labour force increase by almost one fifth. A subsequent expansion to include Bulgaria and Romania would add a further 8 % to both the population and labour force.

On 1 January 2003, the European Union numbered 379 million inhabitants. On the same date, acceding countries, that is the group of 10 countries set to join the European Union in May 2004, represented a total of 74 million inhabitants. The population was very unevenly distributed, as just three of the acceding countries, namely, Poland, the Czech Republic and Hungary, accounted for almost four fifths of the total⁽¹⁾. The largest acceding country was, by far, Poland, with a population of 38.2 million inhabitants. If populations remain stable up until future enlargement, Romania would add a further 21.8 million persons and Bulgaria another 7.8 million.

In the European Union, the labour force, defined as the number of persons in employment added to the number of unemployed persons, totalled 176 million persons, corresponding to 47 % of the total population. The addition of the acceding countries will add a further 33.5 million to the EU's workforce in May 2004 (excluding Malta). Expressed as a proportion of the total population, the labour force in the acceding countries accounted for approximately 45 % of total population at the start of 2003. It is interesting to note that in the majority of candidate countries, the ratio of the labour force to the population was actually higher than in the EU, reaching a maximum of 50 % in the Czech Republic. The aggregated ratio for acceding countries was weighed down by Poland (44 %) and Hungary (41 %).

All candidate countries reported a more balanced gender composition of their respective workforces than the average figures for the EU as a whole. While women represented 43.5 % of the labour force in the EU at the start of 2003, data for the candidate countries reveals that the country with the lowest share of women in the labour force was Cyprus (44.6 %), followed by the Czech Republic (44.7 %) and Hungary (45.5 %). At the other end of the ranking, the Baltic States reported the highest prevalence of women in the labour force, led by Lithuania with an almost equal balance between the sexes (49.8 % of the labour force were women).

Poland was the candidate country with the highest unemployment rate at the start of 2003. Indeed, unemployment affected almost one in five (19.4 %) of the labour force, two and a half times the EU average (7.6 %). Slovakia followed with an unemployment rate of 17.1 %. Four other candidate countries reported double-digit unemployment rates, while just three of the candidate countries were able to report that they had lower unemployment rates than the EU: Slovenia (6.5 %), Hungary (5.8 %) and Cyprus (4.1 %).

(1) Note that no comparable demographic data are available for Turkey; however, sources suggest that the population of Turkey was 68.6 million in 2001, just short of the 74 million inhabitants of all 10 acceding countries.

Table 1.1.1: Selected demographic indicators, 2003

	EU-15	ACC	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
Population on 1 January (thousands)	378 988	74 296	10 203	1 356	805	2 332	3 463	10 152	397	38 214	1 995	5 379	7 846	21 812	:
Population compared to EU-15 on 1 January (%)	100.0	19.6	2.7	0.4	0.2	0.6	0.9	2.7	0.1	10.1	0.5	1.4	2.1	5.8	:
Total labour force (thousands) (1)	176 427	:	5 087	660	341	1 118	1 690	4 165	:	16 938	959	2 615	3 334	10 630	:
Share of females in total labour force (%) (1)	43.5	:	44.7	48.6	44.6	49.0	49.8	45.5	:	46.0	45.8	45.7	46.6	46.1	:
Unemployment rate (%) (1)	7.6	:	7.5	10.8	4.1	10.6	12.9	5.8	:	19.4	6.5	17.1	13.7	8.1	:

(1) Second quarter 2003, except for EU-15 and RO, second quarter 2002.

Source: Eurostat, Demography (theme1/cc/cc_c/c_dem_cc) and Labour Force Survey (theme1/cc/cc_c/c_pac_cc).

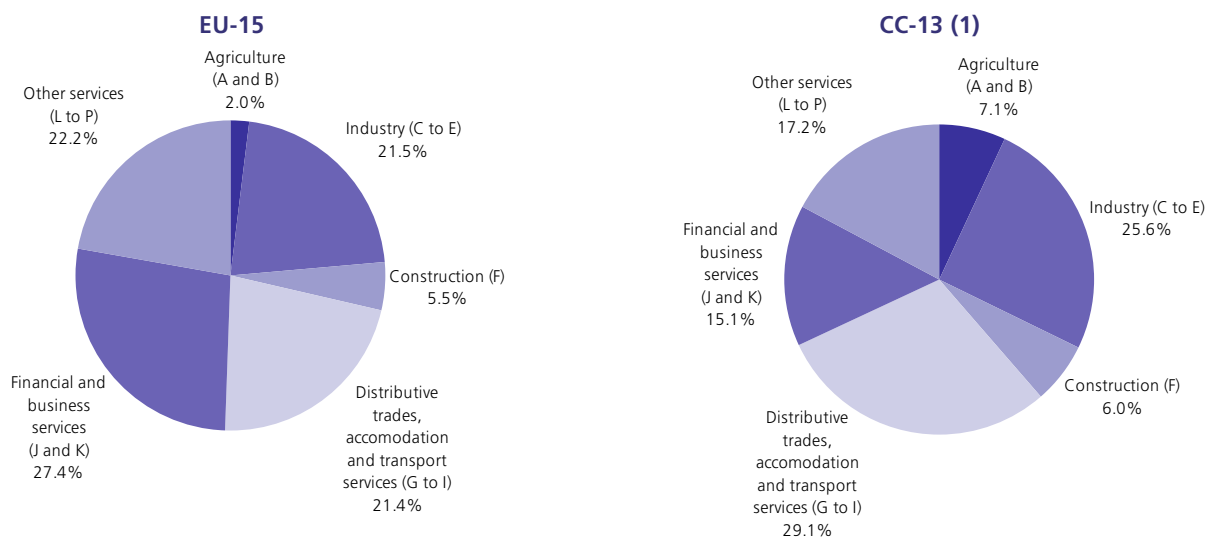
1.2 NATIONAL ACCOUNTS

Data from national accounts allow a comparison of the structural differences between the economies of the candidate countries and the European Union. It should be noted, however, that the aggregated figures for the 13 candidate countries are strongly influenced by the data for just a few of them, in particular Poland, due to the wide disparities between the size of these economies. Indeed, four of the candidate countries accounted for more than three quarters of total gross domestic product (GDP): Poland was the largest economy, accounting for 29 % of the wealth created in the candidate countries in 2002, ahead of Turkey (28 %), the Czech Republic (11 %) and Hungary (10 %). Figure 1.2.1 should therefore be interpreted in the light of the relative weight of these countries.

The most striking structural difference between the economies of the candidate countries and those of the EU was the contribution of financial and business services to national wealth creation. While this branch accounted for more than one quarter (27.4 %) of GDP in the EU in 2002, it represented only 15.1 % of GDP within the candidate countries in 2001.

Another characteristic of the candidate countries is the relatively high importance of agriculture within their economic structures. Agriculture contributed 7.1 % to total GDP in the candidate countries in 2001, against only 2.0 % in the EU in 2002. This figure was strongly influenced by the importance of agriculture in the three non-acceding countries (Bulgaria, Romania and Turkey). Within the acceding countries, the Baltic States, and in particular Lithuania, also reported a higher share of agriculture in their respective national economies. Industry and distributive trades, accommodation and transport services also generally accounted for a somewhat higher share of GDP in the candidate countries than in the EU.

Figure 1.2.1: Share of gross value added at basic prices, by NACE Section, 2002 (%)



(1) 2001.

Source: Eurostat, National accounts (theme1/cc/cc_b/b_sec_cc).

1. CANDIDATE COUNTRIES - AN OVERVIEW

Table 1.2.1: Selected national accounts indicators, 2002

	EU-15	CC-13	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
GDP at market prices (EUR million)	9 170 134	693 493	73 875	6 904	10 758	8 940	14 672	68 916	4 103	199 904	23 347	25 147	16 583	48 362	191 711
GDP at market prices (EUR per capita)	24 060	3 990	7 210	5 070	15 000	3 820	4 230	6 780	10 360	5 230	11 700	4 670	2 110	2 220	2 750
Share of GDP at market prices in the EU-15 (%)	100.0	16.6	30.0	21.1	62.3	15.9	17.6	28.2	43.1	21.7	48.6	19.4	8.8	9.2	11.4
Share of gross value added at basic prices (%) (1)															
Agriculture (A and B)	2.0	7.1	3.7	5.4	4.1	4.7	7.1	3.7	2.8	3.2	3.0	4.5	12.5	13.0	11.5
Industry (C to E)	21.5	25.7	31.9	22.8	12.4	18.6	24.1	25.2	25.0	23.9	29.6	26.4	23.4	32.1	24.5
Construction (F)	5.5	5.9	6.6	6.6	7.9	6.1	6.4	5.6	3.1	6.6	5.6	5.4	4.4	5.5	4.0
Trade, accommodation and transport (G to I)	21.4	29.1	25.8	31.5	30.8	35.7	33.1	21.6	21.1	30.4	21.2	26.8	24.1	49.4	34.1
Financial and business services (J and K)	27.4	15.1	16.6	15.8	21.2	15.7	10.8	20.7	19.0	15.2	20.0	21.2	20.4	0.0	12.0
Other services (L to P)	22.2	17.1	15.5	18.0	23.6	19.2	18.5	23.3	29.0	20.8	20.6	15.7	15.2	0.0	14.0
Central bank official deposit rate (%) (2)	1.8	:	1.8	:	2.5	2.0	:	7.5	0.8	4.8	4.0	5.0	:	5.0	:
Harmonised index of consumer prices, change 2002/2001 (%)	2.1	:	1.4	3.6	2.8	2.0	0.4	5.2	:	1.9	7.5	3.3	5.8	22.5	:

(1) CC-13, 2001.

(2) Data for EU-15 refers to the euro-zone (EUR-12).

Source: Eurostat, National accounts (theme2/aggs/aggs_gdp & theme1/cc/cc_b/b_sec_cc), Interest rates (theme2/exint/intrt/centrt), Financial and banking statistics (theme1/cc/cc_b/b_mny_cc) and Prices (theme2/price/hicp & theme1/cc/cc_b/b_pri_cc).

In relation to their demographic size (see subchapter 1.1), the candidate countries were relatively small in terms of their annual wealth creation. Total GDP of all 13 candidate countries was EUR 693 billion, about half the size of the Italian economy. Limiting the comparison to just the 10 acceding countries, these had an economic weight corresponding to the size of the Dutch economy, at EUR 437 billion.

The relative difference in the weight of the candidate countries in terms of population and GDP are reflected in the figures for GDP per capita. This ratio was highest in Cyprus at EUR 15 000, compared to an EU average that was more than 50 % higher, at EUR 24 000. Slovenia (EUR 11 700) and Malta (EUR 10 360) were the only other candidate countries that exceeded EUR 10 000 of GDP per head, while more than half of the candidate countries reported GDP per capita below the level of EUR 5 000.

Price inflation, as measured by the harmonised index of consumer prices, was, in most acceding countries, converging towards the EU average. EU prices rose by 2.1 % in 2002 on the basis of a comparison with the year before. Hungary (5.2 %) and Slovenia (7.5 %) were, nevertheless, still reporting relatively high price inflation, and in turn, higher interest rates. Note also the relatively high level of interest rates in Poland (4.8 %), despite consumer prices rising by only 1.9 % in 2002. Among the other candidate countries, Romania reported the highest price increases, with annual inflation running at 22.5 % in 2002⁽²⁾.

(2) TR, not available.

1.3 EXTERNAL TRADE

One of the foundations of the European Union is its customs union and Single Market. Within the EU, the free movement of goods, services, capital and persons (known as the four fundamental freedoms) is guaranteed. External economic relations are governed by customs rules and trade policy towards non-Community countries, and these are common to all Member States under the exclusive responsibility of the European Union.

Historically, most of the candidate countries were also part of a common market system, known as Comecon that governed trade relations of countries characterised by planned economic systems. Up until the end of the 1980s most of these countries had relatively limited trade relations with market economies. The Comecon ceased in 1991 in the wake of the fall of the Berlin wall and the dismantling of the former Soviet Union, and consequently there was a period when these markets 'opened up' to world trade.

The integration of the Eastern European economies started in the late 1980s with the mutual recognition of the European Community and the Comecon in 1988 and the signature of a series of bilateral trade and co-operation agreements. From 1991 onwards, more comprehensive agreements were signed, covering notably trade and economic co-operation. They were concluded, in a first stage, with Hungary, Poland (1991), the Czech Republic, Slovakia, Romania and Bulgaria (1993), then with the three Baltic States (1995) and finally with Slovenia (1996). Since then, and with the notable exception of agriculture, accession countries have been granted free access to EU markets. The reverse is not true however, as some accession countries still keep some forms of import restrictions on specific products imported from the EU. Note also that association agreements existed with Cyprus, Malta and Turkey since the 1970s and that in 1995, Turkey signed a customs union agreement with the European Union.

Table 1.3.1: External trade indicators, 2002

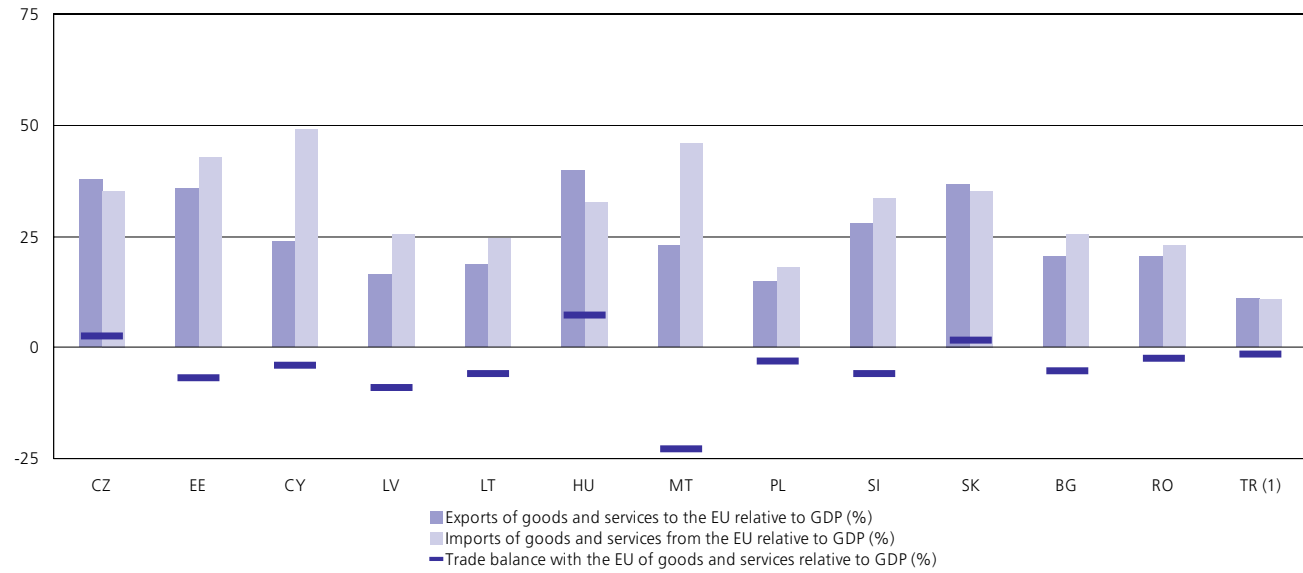
	EU-15 (1)	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR (2)
Exchange rate (1 EUR = ... national currency)	-	31.6	15.6	0.573	0.614	3.45	236	0.418	4.02	230	41.5	1.95	35 135	1 738 000
Exports of goods and services (million EUR)	997 286	40 562	3 638	4 834	2 417	5 537	36 503	2 011	43 499	10 962	15 216	6 063	14 675	34 857
Imports of goods and services (million EUR)	989 300	42 990	5 079	5 263	4 279	7 958	39 927	2 791	58 480	11 574	17 513	8 411	18 881	45 996
Trade balance of goods and services (million EUR)	7 986	-2 429	-1 441	-429	-1 862	-2 422	-3 424	-781	-14 981	-612	-2 297	-2 348	-4 206	-11 139
Cover ratio of goods and services (%)	100.8	94.4	71.6	91.8	56.5	69.6	91.4	72.0	74.4	94.7	86.9	72.1	77.7	75.8
Exports of goods and services relative to GDP (%)	10.9	54.9	52.7	44.9	27.0	37.7	53.0	49.0	21.8	47.0	60.5	36.6	30.3	21.5
Imports of goods and services relative to GDP (%)	10.8	58.2	73.6	48.9	47.9	54.2	57.9	68.0	29.3	49.6	69.6	50.7	39.0	28.4

(1) All external trade figures refer to extra-EU trade.

(2) All data, except exchange rate, 2001.

Source: Eurostat, Exchange rates (theme1/cc/cc_b/b_mny_cc), External trade (theme6/satie/eu_sitc & theme6/et_efcc/et_cc) and National accounts (theme1/cc/cc_b/b_sec_cc).

Figure 1.3.1: External trade with the EU, 2002



(1) 2001.
Source: Eurostat, External trade (theme6/et_efcc/et_cc) and National accounts (theme1/cc/cc_b/b_sec_cc).

As a consequence of these changes, the external trade patterns of the candidate countries have changed during the course of the past decade, as the European Union has become their main trading partner. The accession of the accession countries to the European Union will mean their effective entry into the single market and consequently the removal of all trade barriers.

External trade data reveals that the EU's external trade position was practically balanced in 2002. The EU exported the equivalent of EUR 997 billion of goods and services to extra-EU countries, while importing EUR 989 billion, hence realising a surplus of EUR 8 billion, corresponding to less than half a percent of total external trade flows.

In comparison, all candidate countries were net importers. One reason for this could be the relative size of some of the candidate countries. It is more likely for a small country to rely more on imports, as such countries do not produce the full range of goods and services that they consume. It is also important to note that the EU data presented for the aggregate of all 15 Member States relate to extra-EU trade flows and not to trade among the Member States.

While exports and imports both accounted for just over 10 % of the EU's GDP, there were much higher shares reported in the candidate countries. The share of exports in GDP was lowest in Poland and Turkey (20 %), while imports accounted for up to 70 % of GDP in Estonia, Malta or Slovakia. The Baltic States appeared to be the most dependent of the candidate countries on imports, as they recorded the lowest cover ratios (exports divided by imports).

2.

SMEs IN THE CANDIDATE COUNTRIES - STRUCTURAL BUSINESS STATISTICS

2.1: NUMBER OF ENTERPRISES

In 2001, the acceding countries had a total of 2.5 million enterprises within the business economy activities that are covered by NACE Sections C to I and K (therefore excluding financial intermediation). To this total an extra 0.3 million enterprises can be added for Romania (see table 2.1.1), while SBS data for Bulgaria and Turkey was not available at the time of writing.

The figures for the acceding countries can be added to the 13.4 million enterprises that were active in the EU in the same year, to give a total of approximately 16 million enterprises in the 25 countries that will soon form the EU.

The 2004 enlargement process will therefore add almost 20 % to the existing number of enterprises within the EU's business economy. It is important to note that data for Hungary under-estimate the actual number of enterprises in this country, as it covers only enterprises employing five or more persons.

As the largest of the acceding countries, Poland logically hosted the highest number of enterprises. Indeed, Poland accounted for an absolute majority of the enterprises that were active in the acceding countries in 2001, some 1.4 million enterprises (57.2 %). This share was somewhat higher than the shares of Poland in the acceding countries totals for population (51.4 %) or GDP (45.8 %).

The Czech Republic reported a relatively high number of enterprises, some 742 000 in 2001, or about half the number recorded in Poland, although the Czech Republic's population and GDP figures were approximately one third of those registered in Poland. At the opposite end of the scale, Slovakia numbered only 37 000 enterprises for a population of over 5 million persons.

Table 2.1.1: Number of enterprises, 2001

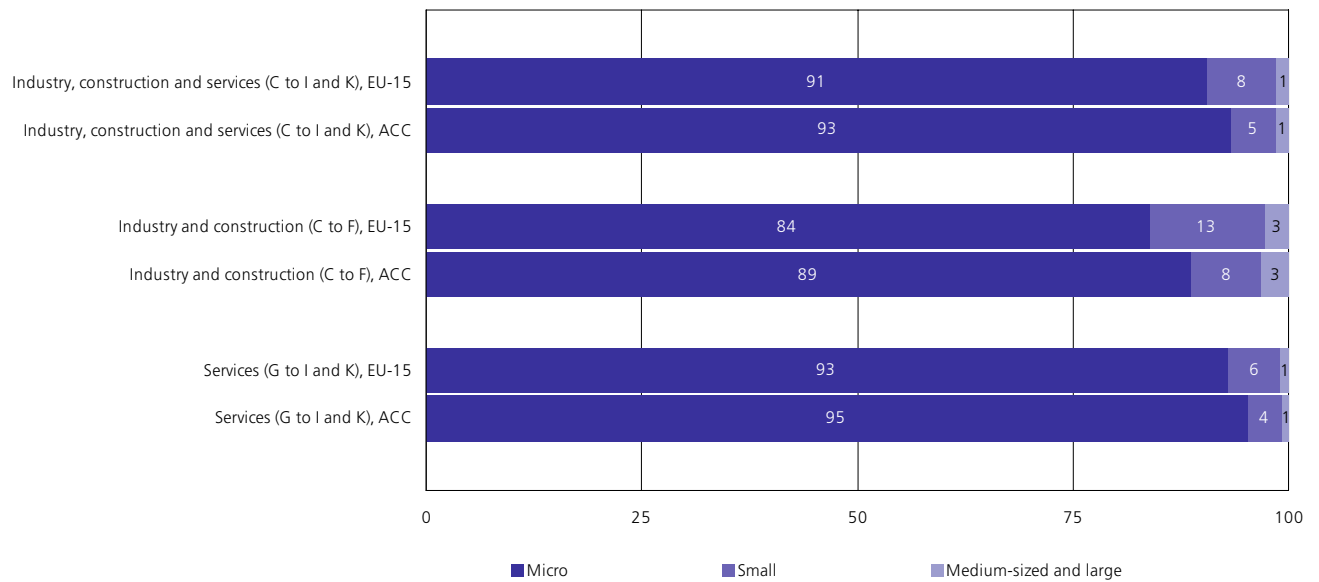
	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry and services (C to I and K) (2)															
All sizes (units), of which:	13 447 079	2 476 463	741 762	29 465	:	36 032	57 621	56 125	:	1 417 142	71 472	36 910	:	300 310	:
Micro (%)	90.6	93.4	94.6	78.5	:	76.9	81.5	51.0	:	96.5	91.0	:	:	:	:
Small (%)	7.9	5.2	4.4	17.8	:	18.9	14.9	40.2	:	2.4	:	23.4	:	9.9	:
Medium (%)	1.2	1.2	0.9	3.3	:	3.7	3.2	:	:	0.9	:	5.2	:	2.6	:
Large (%)	0.2	0.3	0.2	0.5	:	0.5	0.4	:	:	0.2	:	:	:	:	:
Industry and construction (C to F)															
All sizes (units), of which:	3 656 464	729 755	252 297	6 775	12 149	7 603	12 993	23 329	:	378 048	26 302	10 259	:	57 753	:
Micro (%)	84.0	88.7	91.8	59.2	:	57.8	64.6	41.7	:	92.5	87.3	50.1	:	67.0	:
Small (%)	13.2	8.0	6.1	31.0	:	31.3	25.4	44.6	:	4.8	:	34.2	:	21.2	:
Medium (%)	2.3	2.7	1.7	8.4	:	9.2	8.6	:	:	:	:	11.9	:	9.0	:
Large (%)	0.5	0.6	0.4	1.3	:	1.7	1.5	:	:	:	:	3.7	:	2.8	:
Services (G to I and K)															
All sizes (units), of which:	9 790 615	1 746 708	489 465	22 690	:	28 429	44 628	32 796	:	1 039 094	45 170	26 651	:	242 557	:
Micro (%)	93.1	95.3	96.0	84.2	:	82.0	86.4	57.6	:	:	93.2	:	:	:	:
Small (%)	6.0	4.0	3.5	13.8	:	15.6	11.9	37.0	:	:	5.9	19.2	:	7.2	:
Medium (%)	0.8	0.6	0.4	1.8	:	2.2	1.6	4.6	:	0.5	:	2.6	:	1.1	:
Large (%)	0.1	0.1	0.1	0.2	:	0.2	0.2	0.8	:	0.1	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(2) PL, breakdown by enterprise size class, 2000.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.1.1: Proportion of small, medium and large enterprises, by sector, 2001 (%)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

On average, 93.4 % of enterprises in the acceding countries were micro enterprises employing less than 10 persons, with a higher share registered among enterprises in the services sector (95.3 %) than in the industry and construction sector (88.7 %). These figures were in line with the breakdown observed in the EU (see table 2.1.1). Within the acceding countries, a further 5.2 % of the total number of enterprises were categorised as small (employing between 10 and 49 persons), a share that rose to 8.0 % within the industry and construction sector, twice the proportion recorded for services (4.0 %). As such, a total of 98.5 % of all enterprises in the acceding countries employed less than 50 persons, a share that was equal to 96.7 % in the industry and construction sector, rising to 99.3 % among enterprises in the services sector.

In the Baltic States, there was a particularly low number of micro enterprises and subsequently a much higher proportion of all enterprises were small enterprises. In Latvia and Estonia, for example, less than 60 % of all enterprises in the industry and construction sector were classified as micro enterprises, compared to an acceding countries average of 88.7 % and an EU average of 84.0 %. However, more than 30 % of all enterprises in both of these countries were registered as being small, compared to an acceding countries average of 8.0 % and an EU average of 13.2 %. The same observation could be made in the services sector, with less than 85 % of all enterprises in Estonia and Latvia being classified as micro enterprises, compared to an acceding countries average of 95.3 %. The share of small enterprises in the total number of enterprises within the Baltic States was at least three times the acceding countries average.

Table 2.1.2: Change in number of enterprises, 2001/2000 (%)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes	:	:	-7.3	6.8	:	-5.0	8.3	6.1	:	-7.6	4.9	26.4	:	:	:
Micro	:	:	-7.7	8.7	:	-6.5	9.2	:	:	:	4.1	:	:	:	:
Small	:	:	:	0.6	:	0.2	5.8	6.7	:	:	:	:	:	:	:
Medium	:	:	1.6	2.1	:	1.4	-1.4	:	:	:	:	:	:	:	:
Large	:	:	:	-12.9	:	2.1	-4.1	:	:	:	:	:	:	:	:
Industry and construction (C to F)															
All sizes	-0.6	:	-7.0	1.6	1.2	-9.9	8.7	3.6	:	-11.6	3.0	17.7	:	6.6	:
Micro	-1.0	:	-7.1	2.4	:	0.3	10.0	:	:	-12.1	2.0	36.5	:	:	:
Small	2.0	:	-7.4	0.7	:	1.5	10.6	4.4	:	-2.0	:	:	:	:	:
Medium	0.5	:	1.6	2.1	:	1.0	-1.5	:	:	:	:	:	:	:	:
Large	-0.2	:	2.2	-13.7	:	-1.6	-7.8	:	:	:	:	:	:	:	:
Services (G to I and K)															
All sizes	:	:	-7.5	8.4	:	-3.5	8.1	8.0	:	-6.1	6.0	30.1	:	:	:
Micro	:	:	-8.0	10.1	:	-4.3	9.0	7.7	:	:	5.3	:	:	:	:
Small	:	:	:	0.5	:	-0.5	3.1	8.9	:	:	20.8	6.0	:	:	:
Medium	:	:	1.7	2.0	:	1.8	-1.1	7.2	:	-5.3	:	-2.4	:	:	:
Large	:	:	:	-11.3	:	9.5	7.9	-4.9	:	-0.7	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Structural business statistics also shed some light on the dynamics of business demography (see table 2.1.2). The development of the number of enterprises showed great variations across both countries and size classes. The evolution of the number of enterprises between 2000 and 2001 ranged from a decline of more than 7.0 % in Poland (-7.6 %) and the Czech Republic (-7.3 %) to an increase of roughly the same magnitude in Lithuania (8.3 %). Note also the exceptionally high figure for Slovakia (+26.4 %).

Several elements should be kept in mind when analysing the growth in the number of enterprises between different reference years. While the evolution of the number of enterprises is naturally linked to the number of enterprise births and enterprise deaths, it is also possible that in rapidly changing environments, a re-classification of enterprises occurs. For example, an industrial enterprise re-focuses its activity and is subsequently classified within services. In addition, size class effects also have to be considered, as enterprises grow (and decline) and hence, from one year to the next, may move from one size class to another. Finally, the evolution of the total number of enterprises is mainly a

reflection of the situation observed with respect to micro enterprises. In the case of the Czech Republic, this was particularly evident, as the number of micro enterprises decreased by more than 7 %, while the number of medium-sized and large enterprises increased. The opposite situation was reported in Lithuania, where the population of micro and small enterprises grew, while there was a reduction in the number of medium-sized and large enterprises. Available figures for Poland suggest that the decline in the total number of enterprises was spread across enterprises from all size classes. These changes in the number of enterprises serve in studying the demographics of the business enterprise population, however, they say little about the true economic impact of changes in each of the economies considered. Indeed, the creation (or closure) of one large enterprise may have the same effect (in terms of employment or value added) as the birth of several thousand micro enterprises. Finally, it should not be forgotten that it is harder for statistical business registers to be accurately maintained for smaller enterprises than for larger ones, and large changes in the population from one year to another, particularly among micro enterprises, may in part reflect changes in statistical practices.

2.2: NUMBER OF PERSONS EMPLOYED

In 2001 there were 97 million persons employed in the EU's non-financial business economy (see table 2.2.1). The enlargement of the EU to include the 10 acceding countries on 1 May 2004 will result, if 2001 employment levels are maintained, in an additional 16 million persons joining the workforce of the EU.

The majority of the increase will occur within the industry and construction sector, where 8.0 million persons worked in the acceding countries in 2001, equivalent to 20 % of the 40 million strong EU workforce. There were 7.6 million persons employed in the services sector of the acceding countries, representing 13 % of the 56.8 million persons employed in the EU in 2001.

Looking at the breakdown by NACE Sections highlights the relatively large size of the mining and quarrying sector (NACE Section C) and the energy and water supply sector (NACE Section E) in the acceding countries. In contrast, those employed within the activities of hotels and restaurants (NACE Section H) and business services (NACE Section K) among the acceding countries represented less than 10 % of the corresponding EU workforce.

Not far from half of the persons employed (45 %) in the business economies of the acceding countries were working in Poland in 2001, corresponding to 7.0 million persons (see table 2.2.2). Interestingly, despite having a population almost four times smaller than that of Poland, the Czech Republic had a workforce that was half the size, with 3.5 million persons employed (part of this difference could be accounted for by the relatively high unemployment rate in Poland).

Table 2.2.1: Number of persons employed, by sector, 2001

	EU-15					Acceding countries				
	All sizes (thousands)	of which: (%)				All sizes (thousands)	of which: (%)			
		Micro	Small	Medium	Large		Micro	Small	Medium	Large
Industry, construction and services (C to I and K)	96 736	27.7	21.5	16.3	34.5	15 617	30.3	16.2	20.0	33.6
Industry and construction (C to F)	39 939	19.9	24.0	20.7	35.5	8 034	17.2	15.2	25.5	42.0
Mining and quarrying (C)	355	9.8	23.2	17.4	49.6	310	1.4	3.1	8.1	87.5
Manufacturing (D)	28 330	13.1	21.6	23.4	41.9	5 731	13.9	14.9	27.4	43.9
Electricity, gas and water supply (E)	1 017	2.7	5.1	11.7	80.5	486	1.2	5.0	17.7	76.1
Construction (F)	10 238	40.6	32.7	14.1	12.6	1 507	38.4	22.4	24.5	14.7
Services (G to I and K)	56 797	33.2	19.8	13.2	33.8	7 583	44.1	17.2	14.2	24.6
Distributive trades (G)	23 329	37.5	21.3	12.1	29.1	3 708	53.3	20.2	14.0	12.5
Hotels and restaurants (H)	6 900	45.1	24.6	10.1	20.2	524	54.2	21.4	11.8	12.6
Transport, storage and communication (I)	8 731	16.3	15.5	12.1	55.4	1 658	20.8	8.5	9.7	61.1
Real estate, renting and business activities (K)	17 838	30.8	18.0	16.4	34.8	1 694	43.4	17.9	19.7	19.0

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Table 2.2.2: Number of persons employed, 2001

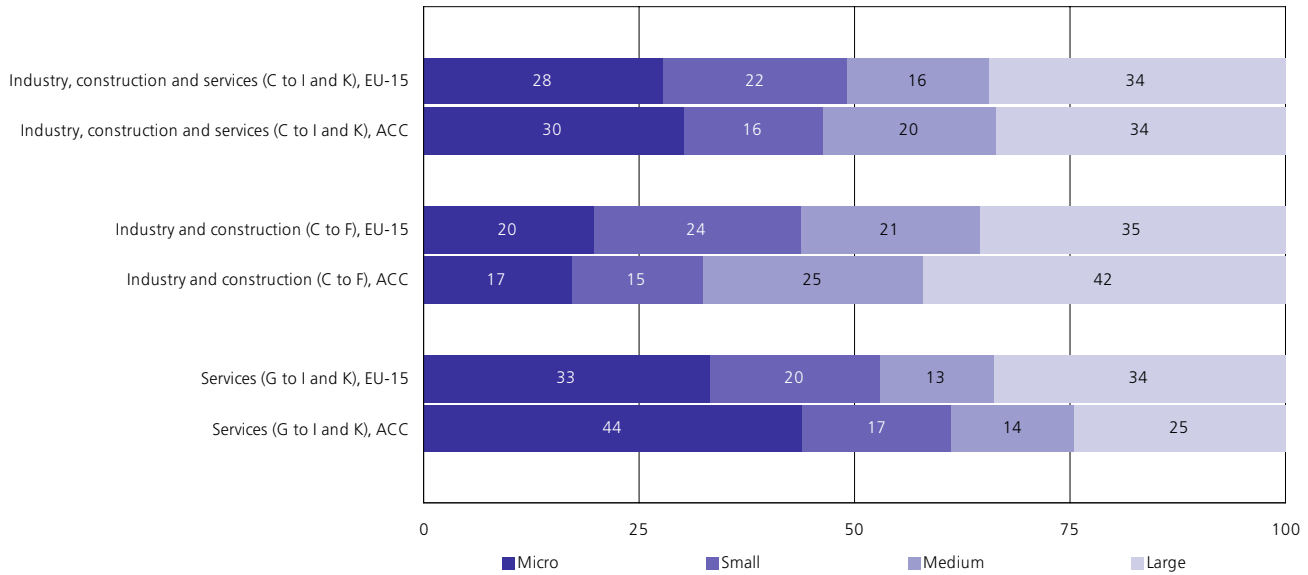
	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL (2)	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes (thousands), of which:	96 736	15 617	3 535	356	:	496	699	1 665	:	7 022	:	942	:	3 987	:
Micro (%)	27.7	30.3	31.2	21.5	:	:	20.8	10.4	:	33.5	:	:	:	:	:
Small (%)	21.5	16.2	18.3	28.6	:	:	:	21.7	:	11.8	:	16.4	:	14.9	:
Medium (%)	16.3	20.0	:	:	:	:	25.5	:	:	17.8	:	21.6	:	20.9	:
Large (%)	34.5	33.6	:	:	:	:	:	:	:	36.9	:	:	:	:	:
Industry and construction (C to F)															
All sizes (thousands), of which:	39 939	8 034	1 894	170	66	216	350	946	:	3 288	:	555	:	2 537	:
Micro (%)	19.9	17.2	18.7	9.4	:	:	8.4	6.1	:	17.5	:	5.3	:	4.1	:
Small (%)	24.0	15.2	17.2	26.4	:	:	:	18.4	:	11.7	:	12.6	:	10.6	:
Medium (%)	20.7	25.5	:	:	:	:	32.6	:	:	22.3	:	24.2	:	22.3	:
Large (%)	35.5	42.0	:	:	:	34.7	:	:	:	48.5	:	57.9	:	63.0	:
Services (G to I and K)															
All sizes (thousands), of which:	56 797	7 583	1 640	186	:	280	350	719	:	3 735	232	387	:	1 449	:
Micro (%)	33.2	44.1	45.7	32.7	:	28.3	33.3	16.0	:	51.2	42.8	:	:	:	:
Small (%)	19.8	17.2	19.6	30.5	:	29.3	28.9	26.0	:	11.9	28.6	22.0	:	22.5	:
Medium (%)	13.2	14.2	12.1	:	:	:	18.5	17.7	:	12.8	:	17.7	:	18.4	:
Large (%)	33.8	24.6	22.6	:	:	:	19.3	40.2	:	24.1	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(2) Breakdowns by enterprise size class, 1998.

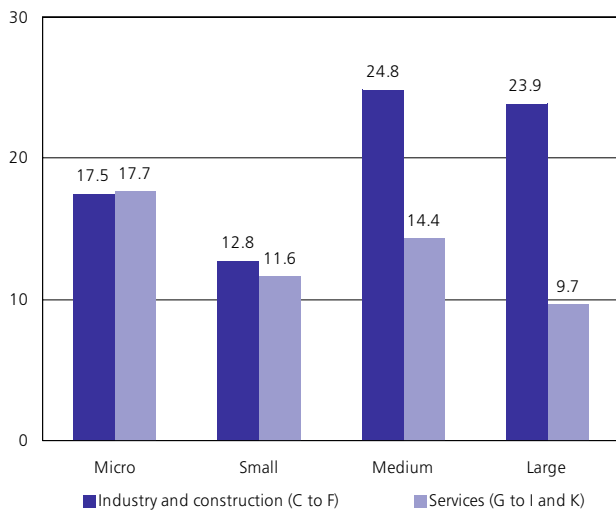
Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.2.1: Proportion of persons employed, by sector, 2001 (%)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.2.2: Number of persons employed in the acceding countries as a percentage of those employed in the EU, 2001 (%)



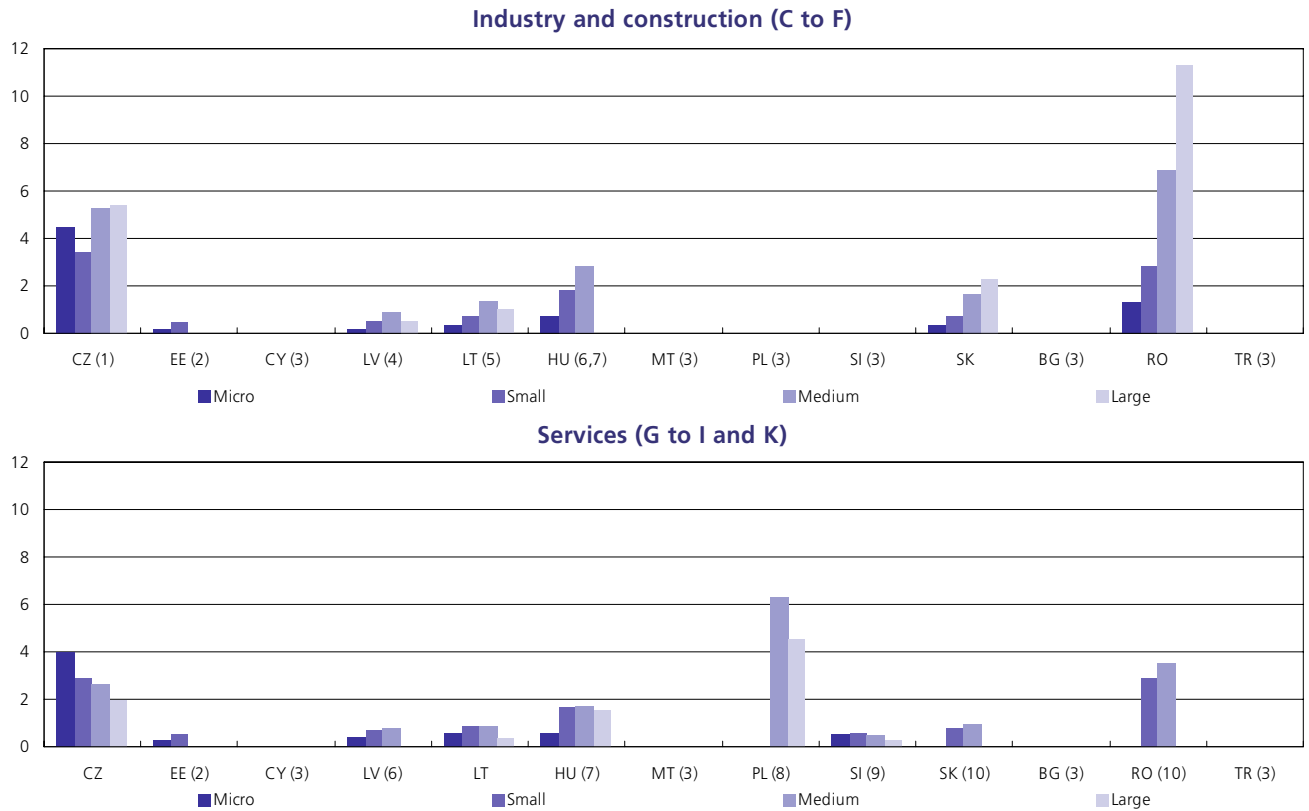
Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Looking at the distribution of employment across the different enterprise size classes provides further evidence of the relatively high weight of large enterprises in the industrial economies of the acceding countries.

Within industry and construction, large enterprises accounted for 42 % of total employment in the acceding countries, against an average of 35 % in the EU. There was also a higher proportion of total employment accounted for by medium-sized enterprises in the acceding countries (25 % against 21 %). As such, 67 % of those employed in industry and construction in the acceding countries were working in either a medium-sized or large enterprise. In contrast, micro enterprises represented only 17 % of total employment in the acceding countries within the activities of industry and construction, compared to 20 % of the total in the EU. Small enterprises represented only 15 % of total employment in the acceding countries compared to as much as 24 % of the total in the EU.

Turning to the services sector, the highest proportion of persons employed in the EU worked in large enterprises (34 %), just above the corresponding share for micro enterprises (33 %). In the acceding countries, in contrast, micro enterprises employed 44 % of the workforce in the services sector, almost twice the share employed by large enterprises (25 %). As the distribution of the enterprise population across different size classes showed less variation, it is possible to deduce that large services enterprises in the acceding countries employed relatively few persons (on average 1 067) compared to the EU average (1 317).

Figure 2.2.3: Number of persons employed in the candidate countries as a percentage of those employed in the EU, 2001 (%)



(1) Medium-sized and large enterprises, 2000. (2) Medium-sized and large enterprises, not available. (3) Not available. (4) Micro, small and medium-sized enterprises, 2000. (5) Small and large enterprises, 2000. (6) Medium-sized enterprises, 2000; large enterprises, not available. (7) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees. (8) Micro and small enterprises, not available. (9) Medium-sized and large enterprises, 2000. (10) Micro and large enterprises, not available. Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

The 'under-representation' of the services sector within the acceding countries was particularly evident among small, medium-sized and large enterprises, as highlighted in figure 2.2.2. The graph shows the level of employment in the acceding countries as a proportion of the corresponding level in the EU. In a theoretical situation of an identical structure in the EU and the acceding countries, all bars in the graph would be at the same level, with employment in the acceding countries equivalent to approximately 16 % of total employment in the EU. It appears from the graph that there was little difference between the ratios of those employed in industry and construction and those employed in services among micro and small enterprises, as the repartition of employment generally followed the same pattern as in the EU. Among medium-sized and large enterprises, in contrast, industry and construction clearly employed a relatively high share of persons in the acceding countries, when compared to the situation in the EU. The difference was particularly important among large enterprises, where employment in the industry and construction sector of the acceding countries was equal to 23.9 % of the EU total, while those working in the services sector represented only 9.7 % of the corresponding workforce in the EU.

A similar indicator is shown in figure 2.2.3, where a breakdown by size class is presented for each acceding country, showing the level of employment as a percentage of the corresponding level in the EU. The graph confirms that in the majority of acceding countries, industrial and construction enterprises accounted for a proportionally higher share of the total number of persons employed when compared to the EU. This was particularly the case in Romania and Slovakia, while the distribution of employment across enterprises of different size classes was closer to the EU-average in the Czech Republic.

2: SMEs IN THE CANDIDATE COUNTRIES - STRUCTURAL BUSINESS STATISTICS

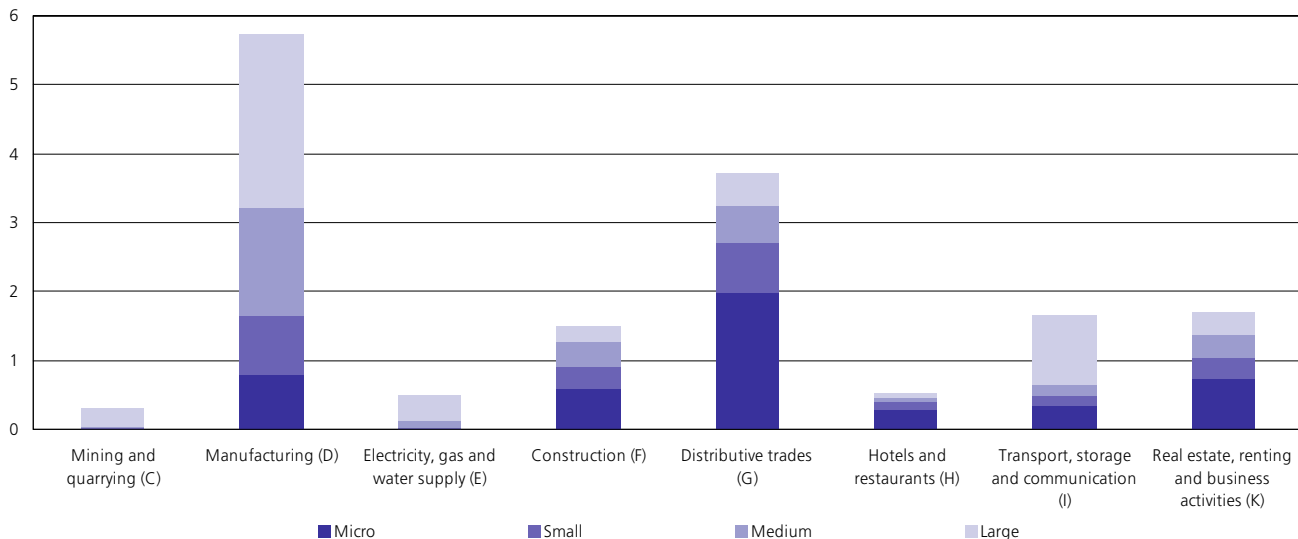
The distribution of employment across the various sectors of the business economy (see figure 2.2.4) shows the importance of manufacturing (NACE Section D) and of distributive trades (NACE Section G) in the acceding countries labour markets. Together these two subsectors accounted for 9.4 million persons employed, almost two thirds of the total workforce. Transport and communications and real estate and business services (NACE Sections I and K) both numbered 1.7 million persons employed.

A breakdown by size class provides evidence of the different degrees of concentration of employment across enterprises of different size classes. A majority of the workforce in the activities of mining and quarrying and electricity, gas and water supply worked in large enterprises, which attracted respectively 87.5 % and 76.1 % of the total number of persons employed in these subsectors in the acceding countries. In the activity of transport and communications, more than half of the persons employed (61.1 %) were also working in a large enterprise.

At the opposite end of the scale, most of the employment in the hotels and restaurants (54.2 %) and distributive trades (53.3 %) subsectors was concentrated within micro enterprises. This was also the case, to a lesser extent, in the activity of real estate and business services, where micro enterprises employed 43.4 % of the total workforce. In the manufacturing sector (NACE Section D) SMEs accounted for 42.2 % of total employment, with a relatively high share for medium-sized enterprises (27.4 %). Finally, SMEs played a relatively important role in the construction sector (NACE Section F) in the acceding countries, where they accounted for 46.9 % of the total number of persons employed, evenly distributed between small and medium-sized enterprises.

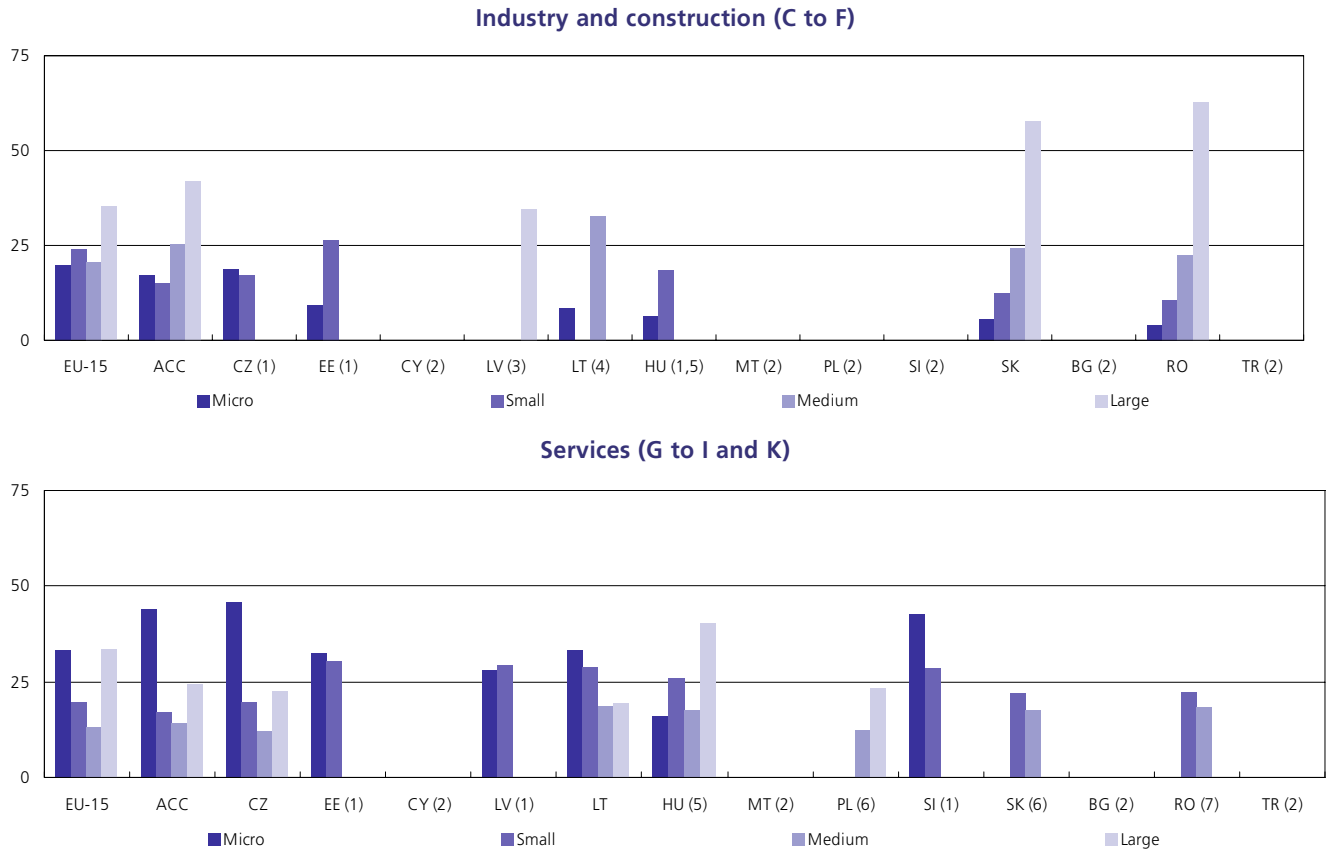
The distribution of employment across the different size classes within the individual candidate countries is shown in figure 2.2.5. The data is broken down between industry (including construction) and services. Despite the patchy data availability, some interesting observations can be made. The share of employment accounted for by micro and small enterprises was below the EU average in all candidate countries in the industry and construction sector, while the converse was true with respect to medium-sized and large enterprises. Slovakia and Romania, in particular, showed a very high concentration of employment within large enterprises in the industry and construction sector, with shares of 57.9 % and 63.0 %, compared to averages of 42.0 % among all of the acceding countries and 35.5 % in the EU. Subject to data availability, the Czech Republic was the main exception to these trends, as the structure of employment in this country resembled more closely that of the EU (for micro and small enterprises). Note the methodological issue affecting data for Hungary, whereby the figures cover only enterprises with 5 or more persons employed - as such, the data for Hungary under-estimates the role played by micro enterprises in terms of their contribution to employment.

Figure 2.2.4: Number of persons employed in the acceding countries, by sector, 2001 (millions)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.2.5: Breakdown of persons employed by enterprise size class, 2001 (%)

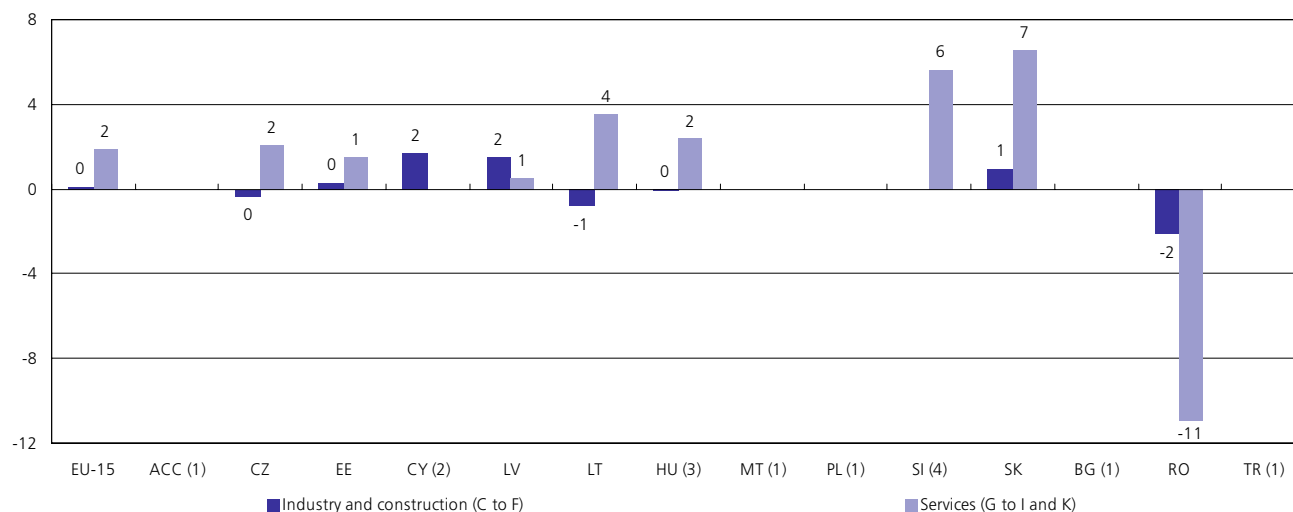


(1) Medium-sized and large enterprises, not available. (2) Not available. (3) Micro, small and medium-sized enterprises, not available. (4) Small and large enterprises, not available. (5) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees. (6) Micro and small enterprises, not available. (7) Micro and large enterprises, not available.
 Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

In the services sector, the general pattern observed in the EU was that micro enterprises and large enterprises each accounted for approximately one third of total employment, the remaining third being shared by small enterprises and medium-sized enterprises. In the acceding countries, large enterprises accounted for a somewhat lower share of total employment in the services sector, mainly to the advantage of micro enterprises, while small and medium-sized enterprises had a combined weight that was similar to that registered in the EU.

The Baltic States were characterised by a higher than average concentration of employment within small enterprises, which accounted for almost as many persons employed as micro enterprises. Slovenia displayed a clear propensity for employment to be concentrated in micro and small enterprises. Together these two size classes accounted for 72 % of total employment in services, compared to a 61 % average in the acceding countries and a 53 % average in the EU.

Figure 2.2.6: Change in number of persons employed, all enterprises, 2001/2000 (%)



(1) Not available.

(2) Services, not available.

(3) Total for all enterprises covers 5 and more employees.

(4) Industry, not available.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Services appeared to be the main source of net job creation in the majority of the candidate countries (see figure 2.2.6). However, in Latvia there was higher growth in the number of persons employed within the industry and construction sector (1.5 %) compared to services (0.5 %) between 2000 and 2001. Employment levels decreased in Romania in both sectors of the business economy, in particular for services (-11.0 %).

In contrast, employment in services increased by 5.7 % in Slovenia and rose by 6.6 % in Slovakia between 2000 and 2001. A breakdown by size class is provided in table 2.3.3. Although there is a general lack of detailed data, no country for which data are available recorded a decrease in employment among micro enterprises. On the other hand, the two countries providing data for large enterprises reported a decline in employment of more than 2.0 % (the industrial sector in Latvia and the services sector in Hungary).

Table 2.2.3: Change in number of persons employed, 2001/2000 (%)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes	1.2	:	0.7	0.9	:	0.9	1.3	1.0	:	:	:	3.2	:	-5.6	:
Micro	0.3	:	0.9	:	:	:	:	:	:	:	:	:	:	:	:
Small	2.0	:	:	-0.4	:	:	:	4.8	:	:	:	:	:	:	:
Medium	1.3	:	:	:	:	:	-0.9	:	:	:	:	:	:	:	:
Large	1.2	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Industry and construction (C to F)															
All sizes	0.1	:	-0.4	0.3	1.7	1.5	-0.8	-0.1	:	:	:	1.0	:	-2.2	:
Micro	-0.4	:	1.9	1.9	:	:	16.8	:	:	:	:	17.9	:	:	:
Small	2.4	:	-5.1	1.3	:	:	:	4.8	:	:	:	:	:	:	:
Medium	0.2	:	:	:	:	:	-0.3	:	:	:	:	:	:	:	:
Large	-1.2	:	:	:	:	-2.1	:	:	:	:	:	:	:	:	:
Services (G to I and K)															
All sizes	1.9	:	2.0	1.5	:	0.5	3.6	2.4	:	:	5.7	6.6	:	-11.0	:
Micro	0.6	:	0.4	:	:	:	:	6.9	:	:	17.8	:	:	:	:
Small	1.7	:	:	-1.7	:	-29.0	:	4.7	:	:	59.8	3.8	:	:	:
Medium	2.6	:	0.5	:	:	:	-2.0	6.9	:	:	:	0.2	:	:	:
Large	3.0	:	:	:	:	:	:	-2.4	:	:	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Table 2.2.4: Absolute change in number of persons employed, 2001/2000 (units)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry and construction (C to F)															
All sizes	40 700	:	-7 225	541	1 096	3 227	-2 920	-932	:	:	:	5 242	:	-56 031	:
Micro	-31 700	:	6 543	305	:	:	4 203	:	:	:	:	4 500	:	:	:
Small	224 800	:	-17 608	590	:	:	:	8 013	:	:	:	:	:	:	:
Medium	16 800	:	:	:	:	:	-358	:	:	:	:	:	:	:	:
Large	-169 000	:	:	:	:	-1 594	:	:	:	:	:	:	:	:	:
Services (G to I and K)															
All sizes	1 064 100	:	32 913	2 673	:	1 425	12 006	16 904	:	:	12 419	23 887	:	-178 602	:
Micro	115 900	:	3 149	:	:	:	:	7 414	:	:	14 999	:	:	:	:
Small	193 200	:	:	-957	:	-33 438	:	8 366	:	:	24 887	3 147	:	:	:
Medium	188 600	:	1 078	:	:	:	-1 307	8 252	:	:	:	162	:	:	:
Large	566 400	:	:	:	:	:	:	-7 128	:	:	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

2.3: PRODUCTION AND RELATED INDICATORS

The 10 acceding countries generated total turnover of EUR 876 billion within their respective business economies (excluding financial intermediation) in 2001. Their combined value added amounted to EUR 239 billion in the same year. In both cases, the values for the acceding countries corresponded to approximately 5.5 % of the EU total. For the sake of comparison, the total number of persons employed in the business economies of the acceding countries represented approximately three times that share. As such, this is evidence of the considerable productivity gap between the acceding countries and the EU, when measured in simple terms.

A breakdown by sector shows that contrary to the situation in the EU, most of the value added generated in the acceding countries originated within the industry and construction sector (EUR 130 billion), compared to the services sector (EUR 109 billion) - see table 2.3.1. This mirrors the higher share of employment within the industry and construction sector among acceding countries (see subchapter 2.2). Note that the Baltic States recorded the highest presence of services in their respective business economies (as measured by value added), with Latvia and Estonia the only candidate countries to report that services generated more value added than industry and construction.

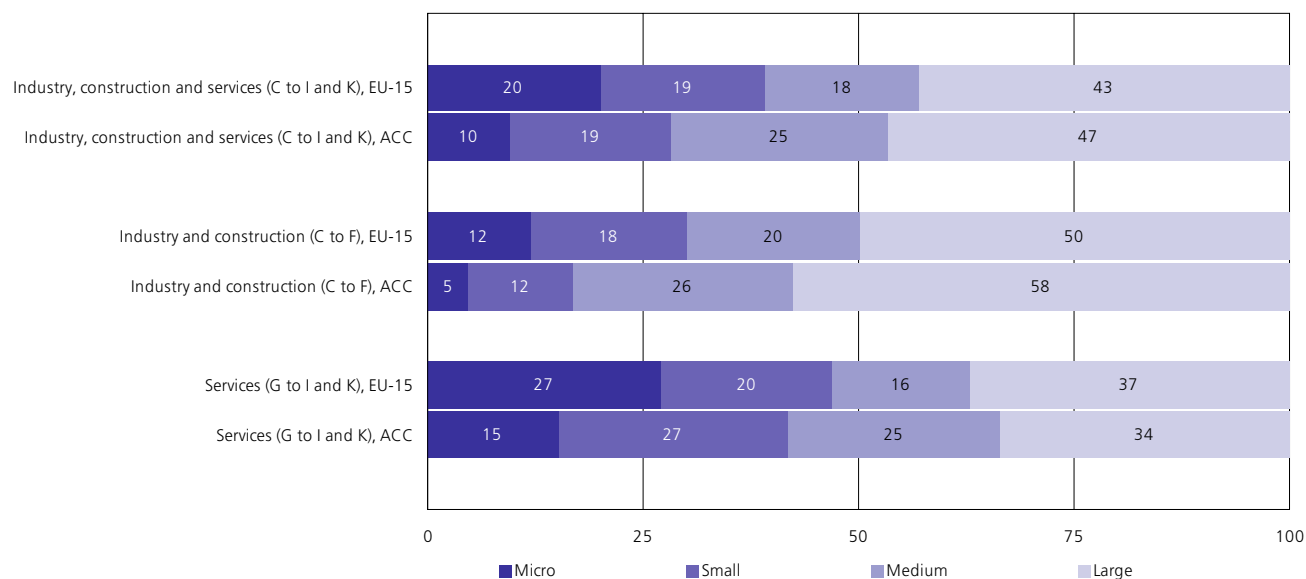
As much as 61 % of the total value added generated in the business economies of the acceding countries in 2001 originated from Polish enterprises, totalling EUR 147 billion (see table 2.3.2). This was a much larger share than the equivalent proportion of total employment (45 %) that was accounted for by Polish enterprises.

Table 2.3.1: Value added at factor cost, by sector, 2001

	EU-15					Acceding countries				
	All sizes (million EUR)	of which: (%)				All sizes (million EUR)	of which: (%)			
		Micro	Small	Medium	Large		Micro	Small	Medium	Large
Industry, construction and services (C to I and K)	4 308 733	20.1	19.0	17.9	43.0	239 410	9.5	18.8	25.1	46.6
Industry and construction (C to F)	2 016 348	12.1	18.0	20.0	49.9	130 159	4.7	12.1	25.6	57.6
Mining and quarrying (C)	64 237	12.6	9.1	19.1	59.3	7 347	0.4	2.6	7.5	89.5
Manufacturing (D)	1 450 224	7.6	16.0	21.6	54.8	84 517	2.8	12.5	28.0	56.8
Electricity, gas and water supply (E)	138 052	5.7	4.3	11.7	78.3	16 848	0.5	2.5	11.8	85.2
Construction (F)	363 835	32.4	32.9	16.9	17.8	21 446	17.1	21.6	33.1	28.2
Services (G to I and K)	2 292 385	27.1	19.8	16.0	37.0	109 251	15.2	26.7	24.5	33.6
Distributive trades (G)	824 315	27.5	23.6	17.2	31.6	50 875	15.3	38.7	29.5	16.5
Hotels and restaurants (H)	140 458	38.7	24.4	12.4	24.5	2 746	24.0	21.4	23.6	30.9
Transport, storage and communication (I)	463 119	11.3	12.2	10.7	65.0	30 808	7.3	8.3	11.3	73.1
Real estate, renting and business activities (K)	864 493	32.7	19.6	18.2	29.3	24 822	23.9	25.4	30.9	19.8

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.1: Proportion of value added at factor cost, by sector, 2001 (%)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Table 2.3.2: Value added at factor cost, 2001

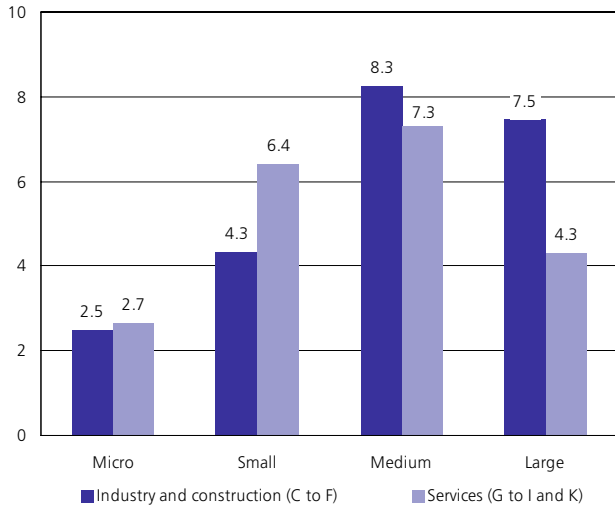
	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K) (2)															
All sizes (million EUR), of which:	4 308 733	239 410	34 353	3 378	:	5 561	4 330	23 280	:	146 980	8 915	9 428	:	16 777	:
Micro (%)	20.1	9.5	:	16.4	:	:	10.0	6.2	:	25.4	20.7	:	:	:	:
Small (%)	19.0	18.8	16.0	25.8	:	:	:	15.7	:	10.7	:	14.9	:	12.9	:
Medium (%)	17.9	25.1	:	:	:	:	25.4	:	:	18.6	:	17.4	:	21.1	:
Large (%)	43.0	46.6	:	:	:	:	:	:	:	45.3	:	:	:	:	:
Industry and construction (C to F)															
All sizes (million EUR), of which:	2 016 348	130 159	20 698	1 462	1 887	2 500	2 202	14 408	:	76 146	5 106	5 750	:	9 505	:
Micro (%)	12.1	4.7	6.0	5.5	:	:	2.8	2.9	:	3.7	12.4	3.5	:	2.4	:
Small (%)	18.0	12.1	11.5	20.7	:	:	:	10.2	:	12.2	:	8.9	:	8.4	:
Medium (%)	20.0	25.6	:	:	:	:	29.8	:	:	:	:	17.2	:	21.8	:
Large (%)	49.9	57.6	:	:	:	47.9	:	:	:	:	:	70.3	:	67.4	:
Services (G to I and K)															
All sizes (million EUR), of which:	2 292 385	109 251	13 655	1 916	:	3 061	2 127	8 871	:	70 834	3 809	3 678	:	7 271	:
Micro (%)	27.1	15.2	:	24.6	:	24.3	17.5	11.7	:	:	31.9	:	:	:	:
Small (%)	19.8	26.7	22.7	29.7	:	25.8	29.6	24.8	:	:	26.8	24.3	:	18.6	:
Medium (%)	16.0	24.5	21.2	:	:	:	20.9	21.1	:	26.2	:	17.5	:	20.1	:
Large (%)	37.0	33.6	:	:	:	:	31.9	42.4	:	34.8	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(2) PL, breakdown by enterprise size class, 2000.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.2: Value added in the acceding countries as a percentage of value added in the EU, 2001 (%)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

The structure of value added across enterprises of different size classes highlights the greater weight of medium-sized and large enterprises in the industry and construction sector of the acceding countries. Within industrial and construction activities, large enterprises generated 58 % of the total value added within the acceding countries, while a further 26 % was accounted for by medium-sized enterprises. These shares were respectively 8 and 6 percentage points above the corresponding proportions in the EU. As a consequence, micro and small enterprises contributed almost twice as much to value added in the industry and construction sector in the EU (30 %) as they did in the acceding countries (17 %). The difference was particularly evident for micro enterprises that generated 12 % of value added in the EU, compared to only 5 % among the acceding countries.

In the services sector, the picture was somewhat different, as large enterprises accounted for 34 % of total value added in the acceding countries, compared to 37 % of the total in the EU. SMEs (excluding micro enterprises) played a much larger role in the acceding countries, as they generated more than half (52 %) of the total value added in the services sectors of the acceding countries, split almost evenly between small enterprises (27 %) and medium-sized enterprises (25 %). These shares were considerably higher than in the EU, where SMEs (excluding micro enterprises) accounted for 36 % of the value added generated. As much as 27 % of total value added in the services sector originated from micro enterprises in the EU, almost twice the corresponding share that was registered among the acceding countries (15 %).

These observations are complemented by the information presented in figure 2.3.2, that shows the relative proportion of value added generated in the various enterprise size classes in the acceding countries in relation to the EU. If the structure of value added in acceding countries perfectly matched that of the EU, then all bars would be at the same level, approximately

6 %. As such, the graph shows the relatively low contribution of micro enterprises to total value added creation, both within the industry and construction sector and the services sector, as well as the more important role played by medium-sized enterprises. The figure also re-confirms the important place of large enterprises within the industrial economy.

The contribution of different economic subsectors to total value added is shown in figure 2.3.4, where the importance of the manufacturing and distributive trades' subsectors in the acceding countries is evident once more. The largest subsector at the level of NACE Sections was manufacturing, generating a total of EUR 84.5 billion in 2001, or 35 % of the business economy total in the acceding countries. Distributive trades totalled EUR 50.9 billion of value added, or 21 % of the total.

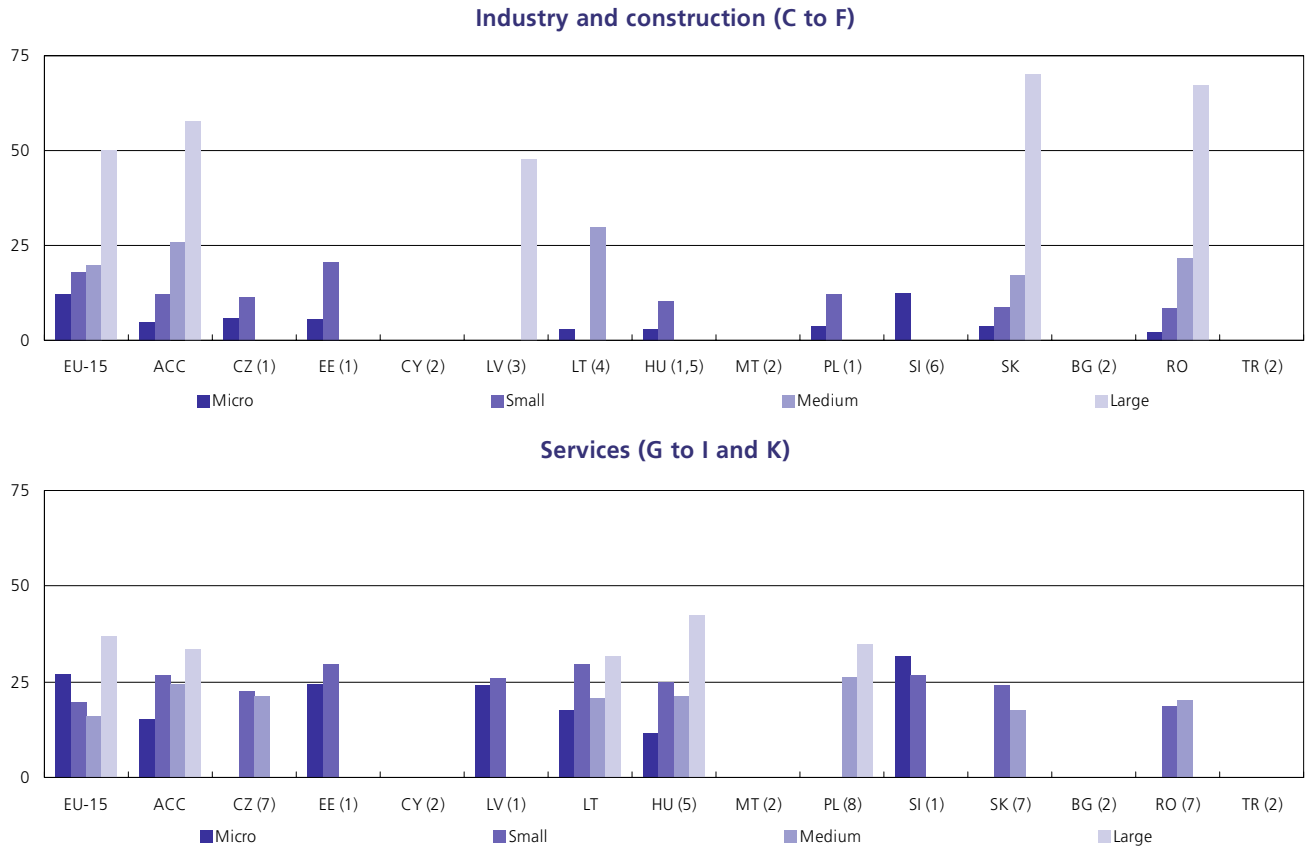
Turning attention to the relative weight of each size class in total value added, a number of subsectors were dominated by the contribution of large enterprises. This was the case in the acceding countries for mining and quarrying, energy and water supply and transport services, all of which were clearly dominated by large enterprises, accounting respectively for 89.5 %, 85.2 % and 73.1 % of sectoral value added. Note that while micro enterprises were marginal in the first two subsectors (contributing less than 1 % to total value added), they represented 7.3 % of total value added in the transport services sector. The manufacturing sector was the only other activity where more than half of the total value added generated in the acceding countries originated from large enterprises (56.8 %).

At the opposite end of the scale, in the construction, hotels and restaurants, and real estate and business services subsectors, value added was relatively evenly distributed between enterprises of different size classes. Large enterprises contributed only 16.5 % to total value added in the distributive trades' subsector.

The distribution of value added across enterprises of different size classes tends to increase with the size class considered within the industry and construction sector, both in the EU and the acceding countries. The distribution of total industry and construction value added across the different enterprise size classes ranged from 9.5 % (micro enterprises) to 46.6 % (large enterprises) within the acceding countries. In Slovakia and Romania there was a particularly high concentration of activity within large enterprises, as this size class accounted for more than two thirds of total value added.

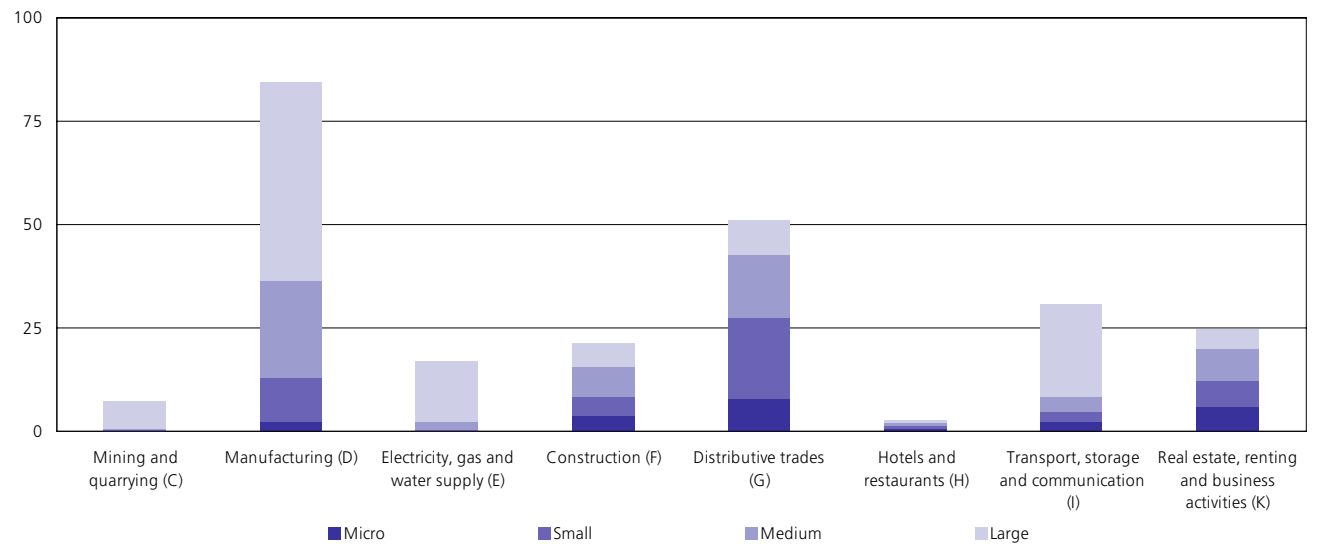
In the services sector, in contrast, wealth creation was more evenly distributed across the different size classes, with micro enterprises in the EU contributing somewhat more to total value added than in the acceding countries (see figure 2.3.3).

Figure 2.3.3: Breakdown of value added at factor cost by enterprise size class, 2001 (%)



(1) Medium-sized and large enterprises, not available. (2) Not available. (3) Micro, small and medium-sized enterprises, not available. (4) Small and large enterprises, not available. (5) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees. (6) Small, medium-sized and large enterprises, not available. (7) Micro and large enterprises, not available. (8) Micro and small enterprises, not available. Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.4: Value added at factor cost in the acceding countries, by sector, 2001 (billion EUR)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Table 2.3.3: Turnover, by sector, 2001

	EU-15					Acceding countries				
	All sizes (million EUR)	of which: (%)				All sizes (million EUR)	of which: (%)			
		Micro	Small	Medium	Large		Micro	Small	Medium	Large
Industry, construction and services (C to I and K)	16 291 660	18.4	19.2	18.9	43.5	876 463	21.2	18.1	22.2	38.6
Industry and construction (C to F)	7 106 788	9.3	14.9	19.4	56.4	407 736	8.7	10.5	22.0	58.8
Mining and quarrying (C)	127 888	11.1	10.4	17.6	61.1	10 563	1.3	4.1	12.7	82.0
Manufacturing (D)	5 458 028	5.8	13.1	20.1	61.0	292 639	7.1	10.0	22.9	60.0
Electricity, gas and water supply (E)	492 159	5.9	5.0	14.1	74.9	48 421	0.9	2.4	11.2	85.6
Construction (F)	1 028 712	29.5	30.0	18.1	22.4	56 114	25.2	21.5	28.2	25.2
Services (G to I and K)	9 184 872	25.4	22.5	18.5	33.6	468 727	32.0	24.6	22.3	21.0
Distributive trades (G)	5 918 652	24.4	24.6	19.9	31.0	341 773	33.3	26.9	23.8	15.9
Hotels and restaurants (H)	324 412	42.2	23.5	11.0	23.3	8 513	44.6	20.9	15.8	18.7
Transport, storage and communication (I)	1 224 646	12.2	14.7	13.0	59.5	63 301	18.7	12.2	13.4	55.7
Real estate, renting and business activities (K)	1 717 163	34.1	20.6	19.2	26.0	55 139	37.5	24.9	24.4	13.2

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Table 2.3.4: Turnover, 2001

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K) (2)															
All sizes (billion EUR), of which:	16 292	876.5	185.0	17.6	:	18.0	21.9	120.5	:	409.1	44.3	47.3	:	77.3	:
Micro (%)	18.4	21.2	19.6	23.3	:	:	:	7.6	:	28.2	20.0	:	:	:	:
Small (%)	19.2	18.1	20.6	31.0	:	:	:	20.5	:	13.5	:	19.0	:	20.0	:
Medium (%)	18.9	22.2	:	:	:	:	:	:	:	21.3	:	21.5	:	19.9	:
Large (%)	43.5	38.6	:	:	:	:	:	:	:	37.0	:	:	:	:	:
Industry and construction (C to F)															
All sizes (billion EUR), of which:	7 107	407.7	88.2	6.0	4.8	5.7	8.9	65.5	:	182.1	21.9	24.7	:	37.2	:
Micro (%)	9.3	8.7	8.6	7.5	:	:	3.5	2.7	:	11.3	10.5	3.7	:	3.1	:
Small (%)	14.9	10.5	11.9	23.3	:	:	:	9.5	:	9.0	:	8.5	:	9.4	:
Medium (%)	19.4	22.0	:	:	:	:	25.6	:	:	:	:	17.3	:	18.7	:
Large (%)	56.4	58.8	:	:	:	40.6	:	:	:	:	:	70.5	:	68.8	:
Services (G to I and K)															
All sizes (billion EUR), of which:	9 185	468.7	96.8	11.6	:	12.3	13.0	55.0	:	226.9	22.5	22.6	:	40.0	:
Micro (%)	25.4	32.0	29.5	31.4	:	26.3	20.7	13.5	:	:	29.2	:	:	:	:
Small (%)	22.5	24.6	28.4	34.9	:	34.0	35.0	33.6	:	:	32.6	30.4	:	29.8	:
Medium (%)	18.5	22.3	21.8	:	:	:	:	25.8	:	20.8	:	26.0	:	21.0	:
Large (%)	33.6	21.0	20.2	:	:	:	:	27.2	:	22.3	:	:	:	:	:

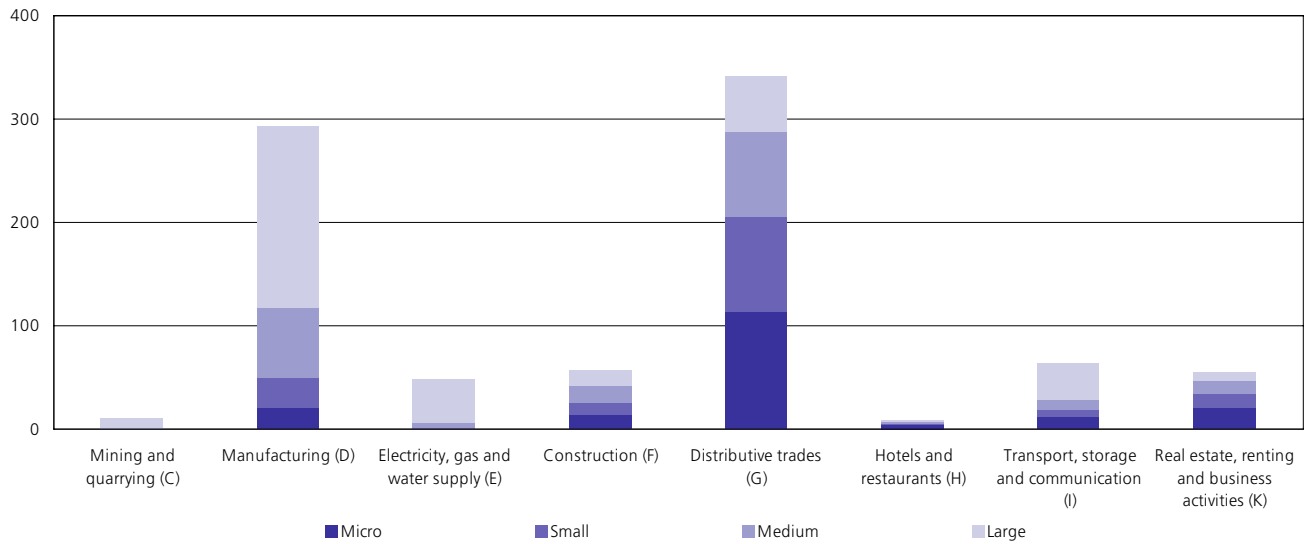
(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(2) PL, breakdown by enterprise size class, 2000.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

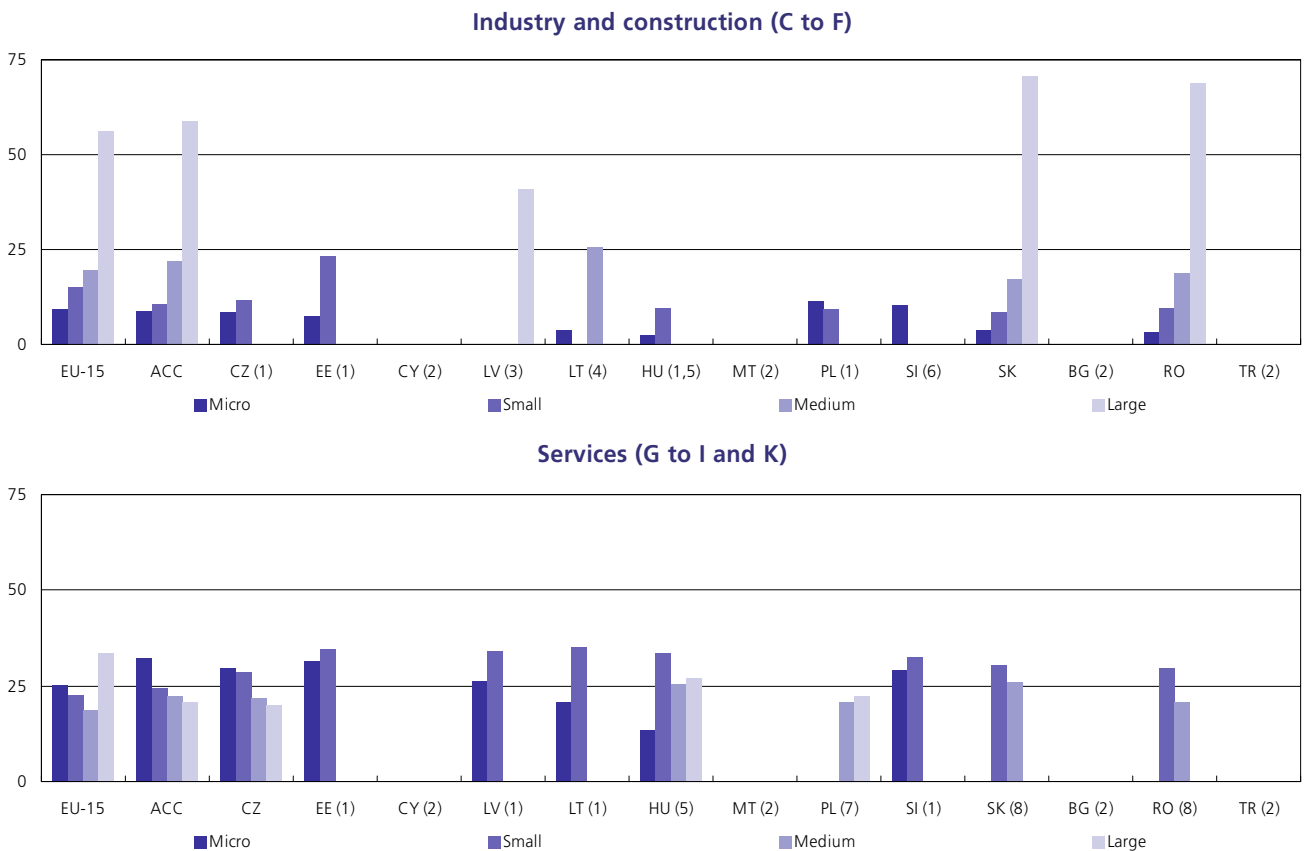
Enterprises in the acceding countries in the services sector generated EUR 469 billion of turnover in 2001, which was more than their industrial counterparts registered (EUR 408 billion) - see tables 2.3.3 and 2.3.4. This difference could be explained by the relatively high weight of the distributive trades' subsector in total turnover in the acceding countries. While distributive trades accounted for 36.3 % of total turnover in the EU in 2001, the corresponding figure for the acceding countries was 2.7 percentage points higher at 39.0 %. Indeed, none of the other three NACE Sections that compose the services sector aggregate recorded a proportion of total turnover within the acceding countries that was above the corresponding EU proportion.

Figure 2.3.5: Turnover in the acceding countries, by sector, 2001 (billion EUR)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.6: Breakdown of turnover by enterprise size class, 2001 (%)



(1) Medium-sized and large enterprises, not available. (2) Not available. (3) Micro, small and medium-sized enterprises, not available. (4) Small and large enterprises, not available. (5) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees. (6) Small, medium-sized and large enterprises, not available. (7) Micro and small enterprises, not available. (8) Micro and large enterprises, not available. Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Table 2.3.5: Gross investment in tangible goods, 2001 (EUR million)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes	:	:	12 468	1 228	:	1 812	1 641	7 480	:	21 545	:	3 929	:	14 355	:
Micro	:	:	1 974	335	:	:	205	783	:	:	:	:	:	:	:
Small	:	:	1 345	258	:	:	:	1 128	:	:	:	413	:	979	:
Medium	:	:	:	:	:	:	287	:	:	:	:	551	:	1 645	:
Large	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Industry (C to F)															
All sizes	:	:	6 743	467	:	646	741	4 371	:	10 535	:	2 363	:	9 801	:
Micro	:	:	400	32	:	:	22	413	:	689	:	50	:	285	:
Small	:	:	550	86	:	:	:	399	:	873	:	113	:	357	:
Medium	:	:	:	:	:	:	151	:	:	:	:	313	:	1 035	:
Large	:	:	:	:	:	307	:	:	:	:	:	1 888	:	8 124	:
Mining and quarrying (C)															
All sizes	:	1 165	267	19	:	5	31	25	:	725	29	66	:	1 352	:
Micro	:	55	1	2	:	:	0	0	:	50	0	1	:	3	:
Small	:	50	5	2	:	:	5	6	:	28	:	1	:	6	:
Medium	:	159	:	:	:	:	26	:	:	:	:	55	:	13	:
Large	:	902	:	:	:	0	0	:	:	:	:	10	:	1 330	:
Manufacturing (D)															
All sizes	:	18 063	4 734	288	:	383	427	3 137	:	6 315	1 062	1 717	:	3 417	:
Micro	:	681	207	20	:	18	21	60	:	303	14	38	:	210	:
Small	:	1 595	386	60	:	75	61	303	:	513	109	88	:	292	:
Medium	:	4 153	979	102	:	158	110	599	:	1 704	277	226	:	870	:
Large	:	11 633	3 162	106	:	132	235	2 175	:	3 796	662	1 366	:	2 045	:
Electricity, gas and water supply (E)															
All sizes	:	5 701	1 229	125	:	190	214	675	:	2 503	262	504	:	4 351	:
Micro	:	107	11	3	:	2	1	1	:	88	0	1	:	2	:
Small	:	140	52	12	:	17	:	7	:	21	:	5	:	2	:
Medium	:	596	70	:	:	8	15	43	:	289	153	12	:	18	:
Large	:	4 858	1 096	:	:	163	:	624	:	2 105	:	487	:	4 329	:
Construction (F)															
All sizes	:	:	513	36	44	69	68	534	:	992	:	77	:	681	:
Micro	:	:	181	7	15	6	0	352	:	248	:	11	:	70	:
Small	:	:	107	13	10	21	0	83	:	312	:	20	:	57	:
Medium	:	:	115	12	11	30	0	55	:	283	:	21	:	134	:
Large	:	:	109	4	9	13	0	44	:	149	:	25	:	420	:
Services (G to I and K)															
All sizes	:	25 636	5 725	760	:	1 167	900	3 109	:	11 010	1 164	1 566	:	4 554	:
Micro	:	5 001	1 574	303	:	200	183	369	:	:	63	:	:	:	:
Small	:	4 540	794	172	:	269	273	729	:	:	368	300	:	622	:
Medium	:	4 756	693	:	:	:	136	615	:	2 243	:	238	:	610	:
Large	:	11 339	2 664	:	:	:	310	1 396	:	5 280	:	:	:	:	:
Distributive trades (G)															
All sizes	:	7 625	1 380	255	235	356	274	953	:	3 060	508	603	:	1 480	:
Micro	:	1 461	339	124	80	57	54	120	:	479	27	183	:	455	:
Small	:	1 992	314	68	67	132	103	349	:	618	205	137	:	435	:
Medium	:	2 011	359	37	:	115	67	229	:	823	181	121	:	341	:
Large	:	2 160	369	27	:	52	50	256	:	1 140	96	161	:	249	:
Hotels and restaurants (H)															
All sizes	:	687	130	24	:	63	22	108	:	237	81	22	:	141	:
Micro	:	169	54	3	:	13	4	13	:	68	11	:	:	:	:
Small	:	131	22	10	:	10	8	21	:	39	18	5	:	27	:
Medium	:	226	38	:	:	:	9	40	:	47	36	12	:	49	:
Large	:	161	17	:	:	:	0	34	:	83	16	:	:	:	:
Transport, storage and communication (I)															
All sizes	:	9 958	2 660	260	:	499	353	1 352	:	3 811	425	599	:	2 483	:
Micro	:	522	170	31	:	20	17	44	:	225	4	12	:	71	:
Small	:	609	108	43	:	79	48	123	:	136	47	25	:	81	:
Medium	:	933	158	97	:	93	33	183	:	296	54	21	:	139	:
Large	:	7 893	2 224	88	:	307	255	1 003	:	3 154	321	541	:	2 193	:
Real estate, renting and business activities (K)															
All sizes	:	7 366	1 555	221	:	248	252	696	:	3 903	150	342	:	451	:
Micro	:	2 849	1 011	146	:	110	107	193	:	:	21	114	:	195	:
Small	:	1 808	351	51	:	48	113	236	:	:	99	133	:	80	:
Medium	:	1 586	138	21	:	53	27	163	:	1 077	:	84	:	80	:
Large	:	1 124	54	4	:	37	4	104	:	903	:	11	:	95	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Data on gross investment provides information on where capital formation takes place in the acceding countries (see table 2.3.5). In industrial activities, investment was clearly linked to the average size of an enterprise. In the manufacturing sector, for example, micro enterprises invested only EUR 0.7 billion in tangible goods out of a total of EUR 18.1 billion. More than half of the manufacturing total was accounted for by large enterprises (EUR 11.6 billion). In services, however, the pattern showed great variations from one activity to another. Transport services followed the pattern in industry, with almost 80 % of total investment being made

by large enterprises. In distributive trades, in contrast, investment was evenly distributed with around EUR 2.0 billion in each of the four size classes, although a slightly lower amount was registered among micro enterprises (EUR 1.5 billion), while investment in the hotels and restaurants subsector was concentrated within medium-sized enterprises. Finally, in the real estate and business services subsector the breakdown of investment followed a different pattern, as the highest proportion of total investment in tangible goods was realised by micro enterprises (EUR 2.8 billion) down to EUR 1.1 billion of investment among large enterprises.

Table 2.3.6: Ratio of personnel costs relative to gross investment in tangible goods, 2001 (%)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL (2)	SI	SK	BG	RO	TR
Industry and construction (C to F)															
All sizes	:	:	167	188	:	129	181	158	:	:	:	123	:	65	:
Micro	:	:	187	145	:	:	148	56	:	:	:	220	:	36	:
Small	:	:	327	226	:	:	:	208	:	:	:	272	:	109	:
Medium	:	:	:	:	:	:	269	:	:	:	:	205	:	101	:
Large	:	:	:	:	:	133	:	:	:	:	:	97	:	60	:
Mining and quarrying (C)															
All sizes	:	:	193	219	:	187	54	269	:	556	365	115	:	66	:
Micro	:	:	145	25	:	:	33	200	:	:	1 300	120	:	13	:
Small	:	:	276	213	:	:	66	153	:	:	:	333	:	74	:
Medium	:	:	:	:	:	:	53	:	:	:	:	25	:	90	:
Large	:	:	:	:	:	:	:	:	:	:	:	593	:	65	:
Manufacturing (D)															
All sizes	:	:	176	213	:	150	209	174	:	198	303	125	:	116	:
Micro	:	:	213	139	:	135	112	237	:	:	2 087	176	:	37	:
Small	:	:	306	209	:	111	186	198	:	:	343	236	:	94	:
Medium	:	:	228	246	:	115	221	219	:	:	342	224	:	84	:
Large	:	:	142	198	:	218	218	157	:	:	242	100	:	140	:
Electricity, gas and water supply (E)															
All sizes	:	:	52	59	:	59	92	103	:	87	83	64	:	18	:
Micro	:	:	34	73	:	65	54	600	:	:	333	200	:	13	:
Small	:	:	55	109	:	41	:	225	:	:	:	109	:	200	:
Medium	:	:	114	:	:	172	172	171	:	:	82	106	:	171	:
Large	:	:	48	:	:	55	:	97	:	:	:	63	:	17	:
Construction (F) (3)															
All sizes	:	:	345	425	1 122	203	314	128	:	:	:	458	:	117	:
Micro	:	:	167	223	1 201	205	143	24	:	:	:	372	:	36	:
Small	:	:	537	408	981	196	171	246	:	:	:	469	:	188	:
Medium	:	:	417	489	666	190	579	421	:	:	:	527	:	206	:
Large	:	:	376	659	1 716	246	264	368	:	:	:	428	:	93	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(2) 1999.

(3) LT, 1999.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.7: Ratio of gross investment in tangible goods relative to turnover, 2001 (%)



(1) Not available. (2) Medium-sized and large enterprises, not available. (3) Micro, small and medium-sized enterprises, not available.

(4) Small and large enterprises, not available. (5) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(6) 2000. (7) 2000; small, medium-sized and large enterprises, not available. (8) Micro and large enterprises, not available.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

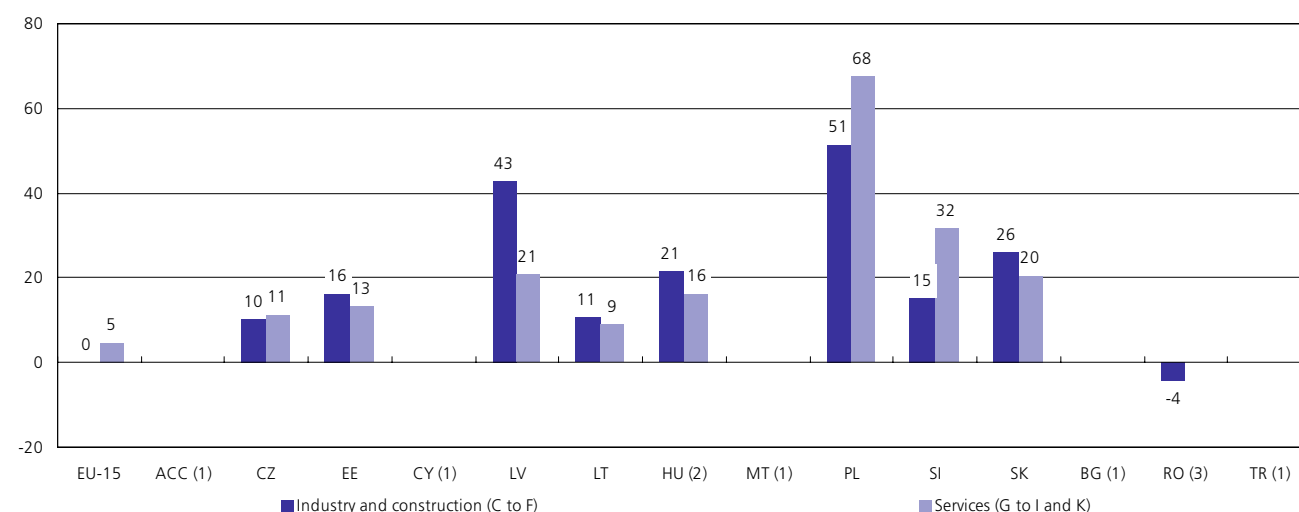
Table 2.3.7: Change in value added at factor cost, 2001/2000 (%)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes	2.4	:	10.7	14.5	:	29.9	9.8	19.3	:	58.7	21.8	23.8	:	:	:
Micro	2.8	:	:	:	:	:	:	:	:	:	110.6	:	:	:	:
Small	3.5	:	:	17.2	:	:	:	19.1	:	:	:	:	:	:	:
Medium	3.1	:	:	:	:	:	19.1	:	:	:	:	:	:	:	:
Large	1.4	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Industry and construction (C to F)															
All sizes	-0.1	:	10.2	16.2	:	42.9	10.7	21.3	:	51.3	15.3	26.1	:	-4.1	:
Micro	4.0	:	-7.2	34.3	:	:	-25.4	:	:	-55.8	186.6	17.9	:	:	:
Small	4.0	:	2.4	18.5	:	:	:	21.0	:	112.1	:	:	:	:	:
Medium	1.3	:	:	:	:	:	22.8	:	:	:	:	:	:	:	:
Large	-2.9	:	:	:	:	53.6	:	:	:	:	:	:	:	:	:
Services (G to I and K)															
All sizes	4.6	:	11.4	13.3	:	20.9	8.9	16.1	:	67.5	31.8	20.5	:	:	:
Micro	2.3	:	:	:	:	:	:	3.5	:	:	85.0	:	:	:	:
Small	3.2	:	:	16.5	:	-24.4	:	17.8	:	:	55.5	24.6	:	:	:
Medium	5.1	:	22.0	:	:	:	14.1	37.5	:	164.6	:	46.7	:	:	:
Large	7.0	:	:	:	:	:	:	10.3	:	96.3	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.8: Change in value added at factor cost, all enterprises, 2001/2000 (%)



(1) Not available.

(2) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

(3) Services, not available.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Turning to the evolution of production-related indicators between 2000 and 2001, the following two pages provide information on the growth of value added and turnover in the acceding countries during this period.

Contrary to the situation in the EU, a majority of candidate countries reported more rapid growth for value added in the industry and construction sector than in the services sector (see figure 2.3.8). Indeed, the Baltic States, Hungary and

Slovakia all saw value added increase at faster pace for industry and construction than for services between 2000 and 2001. Only Poland, Slovenia and, to a lesser extent, the Czech Republic reported higher growth rates in services.

Unlike value added, turnover progressed at a faster pace in the services sector in most of the candidate countries (see figure 2.3.9).

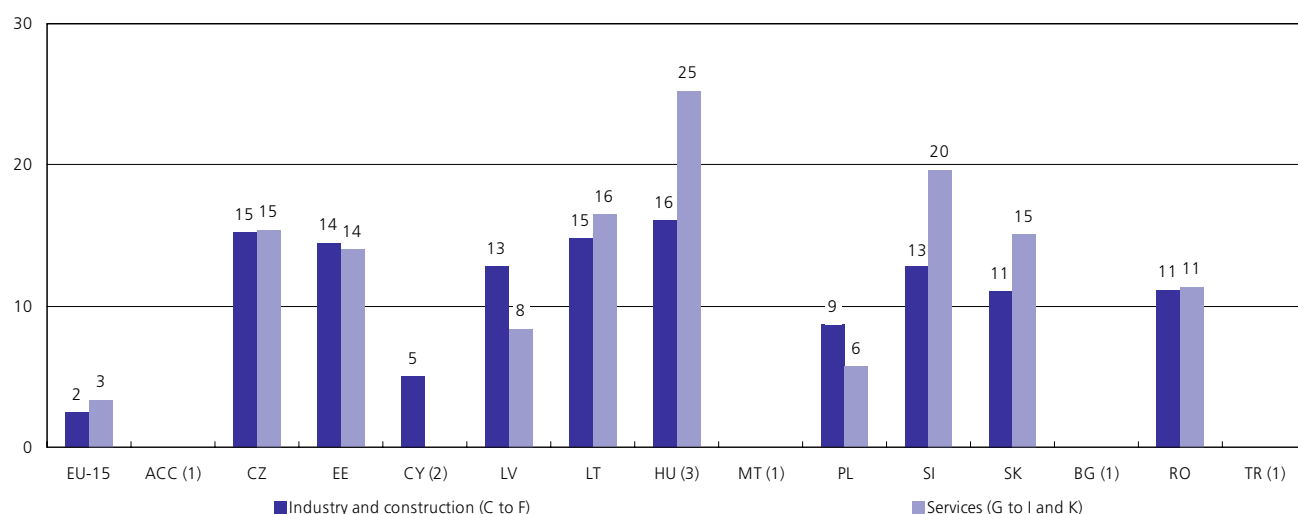
Table 2.3.8: Change in turnover, 2001/2000 (%)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes	2.9	:	15.3	14.2	:	9.7	15.7	20.1	:	7.0	16.2	12.9	:	11.3	:
Micro	1.5	:	14.7	:	:	:	:	:	:	:	57.9	:	:	:	:
Small	1.8	:	:	11.2	:	:	:	29.0	:	:	:	:	:	:	:
Medium	5.0	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Large	3.2	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Industry and construction (C to F)															
All sizes	2.4	:	15.2	14.5	5.1	12.8	14.8	16.1	:	8.7	12.8	11.0	:	11.1	:
Micro	2.1	:	17.8	20.2	:	:	-14.0	:	:	10.8	117.0	26.9	:	:	:
Small	3.2	:	9.9	22.3	:	:	:	22.4	:	5.6	:	:	:	:	:
Medium	3.7	:	:	:	:	:	21.1	:	:	:	:	:	:	:	:
Large	1.9	:	:	:	:	11.5	:	:	:	:	:	:	:	:	:
Services (G to I and K)															
All sizes	3.3	:	15.4	14.0	:	8.4	16.4	25.3	:	5.7	19.7	15.1	:	11.4	:
Micro	1.3	:	13.9	:	:	:	:	1.6	:	:	44.3	:	:	:	:
Small	1.2	:	:	7.8	:	-5.6	:	31.4	:	:	63.8	24.0	:	:	:
Medium	6.1	:	17.2	:	:	:	:	39.8	:	4.1	:	9.7	:	:	:
Large	4.9	:	:	:	:	:	:	20.5	:	15.1	:	:	:	:	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

Figure 2.3.9: Change in turnover, all enterprises, 2001/2000 (%)



(1) Not available.

(2) Services, not available.

(3) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

3.

THE COMPETITIVENESS OF SMEs IN THE CANDIDATE COUNTRIES

3.1: APPARENT LABOUR PRODUCTIVITY AND AVERAGE PERSONNEL COSTS

Competitiveness at an aggregated level is often studied by looking at the ratio of GDP per capita. Within the context of enterprise statistics, at the level of a particular industry or service, a similar ratio can be made using the value added generated by each person employed, otherwise known as apparent labour productivity. It should be noted that the data presented for this indicator are in current price terms and that the ratio is just one component that can be used in an assessment of the competitiveness of a particular subsector. Indeed, it is common to compare apparent labour productivity ratios alongside those of average personnel costs per employee, so that the measure of productivity is adjusted to reflect the different levels of wages recorded in each activity and each country.

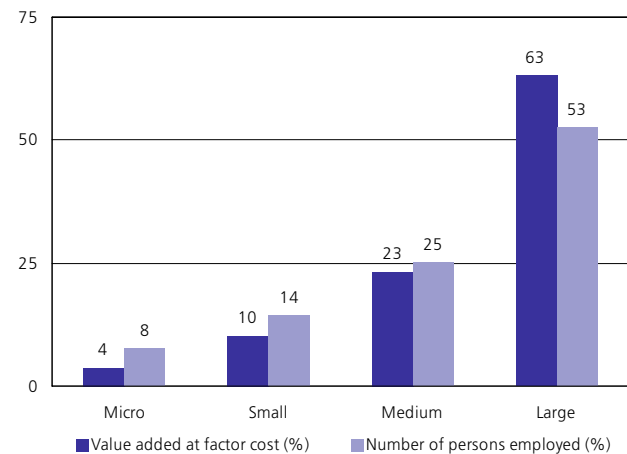
In the candidate countries productivity is likely to have risen as a result of exposure to market competition. However, the process of adaptation to new market structures has followed different paths in a number of the candidate countries. Indeed, it is still common to find SMEs almost exclusively engaged in the activity of distributive trades. As such, many SMEs in the candidate countries are small traders and retailers who, typically, make little in terms of a margin. A lack of a developed services sector means that gains in competitiveness from intangible elements are less likely to be made in the candidate countries. Furthermore, within the industrial economy, SMEs in the candidate countries tend to be relatively small, and as such, are likely to lack the resources required for investment in capital equipment and new technologies. Instead, according to the Enterprise Directorate-General of the European Commission, the majority of SMEs in the candidate countries are characterised as family concerns employing a handful of persons.

APPARENT LABOUR PRODUCTIVITY

Figure 3.1.1 shows the two underlying variables that are combined in the calculation of apparent labour productivity. Large enterprises accounted for 63 % of total value added generated in the candidate countries in 2001⁽¹⁾, which was 10 percentage points higher than their corresponding share of persons employed (53 %). Indeed, among the four different enterprise size classes, large enterprises were the only size class to report that they had a higher share of total value added than employment. As enterprises became progressively smaller their share of value added in comparison to employment was reduced. For example, medium-sized enterprises in the candidate countries had a share of total employment that was 1.1 times more than their corresponding share of total value added. Among small enterprises this ratio was 1.4 times higher for employment and for micro enterprises it was 2.1 times higher. As such, micro enterprises in the candidate countries accounted for 7.5 % of the total number of persons employed in the business economy, while their share of total value added was 3.6 %.

(1) Aggregate includes CZ, EE, HU, LV, LT, SK and RO.

Figure 3.1.1: Breakdown of value added and number of persons employed in the candidate countries, 2001 (% share of total) (1)



(1) Aggregate includes CZ, EE, HU, LV, LT, SK and RO. Source: Eurostat, NewCronos (theme4/sbs/sizeclas).

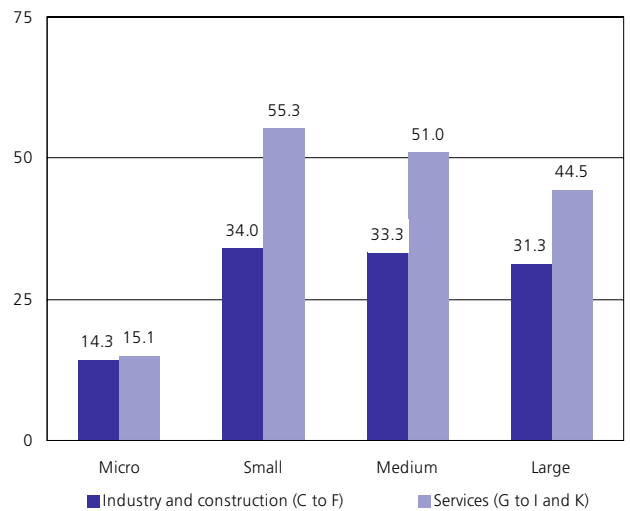
Figure 3.1.2 shows apparent labour productivity within the acceding countries as a percentage of the corresponding figure for the EU. On average, labour productivity in the acceding countries was approximately 34 % of the EU level, highlighting large productivity differentials.

When analysed by enterprise size class, micro enterprises in the acceding countries had apparent labour productivity ratios that were 14.3 % of the EU level within the industry and construction sector and 15.1 % of the EU level in the services sector. The productivity differential between the acceding countries and the EU was larger within the industry and construction sector than it was within the services sector. Indeed, the differential between the acceding countries and the EU was at its lowest among SMEs from the services sector. For example, apparent labour productivity among small enterprises in the acceding countries from the services sector was 55.3 % of the corresponding level recorded in the EU, compared to 44.5 % of the EU total figure among large enterprises in the services sector. It seems, therefore, that SMEs from the services sector in the acceding countries were comparatively more productive, or, that large enterprises in the industrial and construction sectors of the acceding countries did not take full advantage of economies of scale to improve their productivity.

Table 3.1.1 (overleaf) presents data for apparent labour productivity ratios across a wide spectrum of economic activities, as well as being broken down by enterprise size class. The data are expressed in thousands of euro per person employed and refer to 2001. An acceding countries total is given and this confirms that within the activities of mining and quarrying, manufacturing and electricity, gas and water supply, and construction (NACE Sections C, D, E and F) apparent labour productivity rose as a function of enterprise size.

On the other hand, in the services sector there was some divergence from this general pattern. Indeed, for the services average (Sections G to I and K) the highest apparent labour productivity ratio was recorded by medium-sized enterprises (EUR 24 900 per person employed) and the second highest figure by small enterprises (EUR 22 400 per person employed), ahead of large (EUR 19 700 per person employed) and micro (EUR 5 000 per person employed) enterprises. At a more detailed level of NACE Sections, the same pattern as that observed for services as a whole was reproduced for distributive trades (Section G) and for real estate, renting and business activities (Section K).

Figure 3.1.2: Apparent labour productivity in the acceding countries as a percentage of apparent labour productivity in the EU, 2001 (%)



Source: Eurostat, Structural business statistics (theme4/sbs/sizeclas).

The highest levels of apparent labour productivity among the acceding countries were recorded in the activities of mining and quarrying (Section C) and electricity, gas and water supply (Section E), where apparent labour productivity rose to EUR 23 700 per person employed and EUR 34 700 per person employed respectively. This pattern was reproduced in the majority of the countries for which data are available. Lithuania was the only candidate country that did not report its highest level of apparent labour productivity in the electricity, gas and water supply subsector, instead it was the mining and quarrying subsector that had the highest levels.

Within the services sector, the highest levels of apparent labour productivity among the acceding countries were recorded in the transport and communications subsector (Section I), where each person employed generated an average of EUR 18 600 of value added. The lowest levels of apparent labour productivity were reported in the hotels and restaurants subsector (Section H), where an average of EUR 5 200 of value added was generated by each person employed. Transport and communications generally recorded the highest level of labour productivity within services in each of the candidate countries for which data are available; Slovenia and Slovakia were exceptions, as real estate, renting and business activities (Section K) had higher levels.

Table 3.1.1: Apparent labour productivity, broken down by enterprise size class, 2001
(EUR thousand per person employed)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to I and K)															
All sizes	44.5	15.3	9.7	9.5	:	11.2	6.2	14.0	:	20.9	:	10.0	:	4.2	:
Micro	32.3	4.8	:	7.2	:	:	3.0	8.4	:	:	:	:	:	:	:
Small	39.3	17.8	8.5	8.6	:	:	:	10.2	:	:	:	9.1	:	3.6	:
Medium	48.9	19.2	:	:	:	:	6.2	:	:	:	:	8.1	:	4.2	:
Large	55.6	21.3	:	:	:	:	:	:	:	:	:	:	:	:	:
Industry and construction (C to F)															
All sizes	50.5	16.2	10.9	8.6	28.7	11.6	6.3	15.2	:	23.2	:	10.4	:	3.7	:
Micro	30.7	4.4	3.5	5.1	:	:	2.1	7.1	:	:	:	6.8	:	2.2	:
Small	37.9	12.9	7.3	6.7	:	:	:	8.4	:	:	:	7.4	:	3.0	:
Medium	48.9	16.3	:	:	:	:	5.8	:	:	:	:	7.4	:	3.7	:
Large	71.0	22.2	:	:	:	15.9	:	:	:	:	:	12.6	:	4.0	:
Mining and quarrying (C)															
All sizes	181.1	23.7	16.3	9.1	38.0	9.7	25.5	17.5	:	27.1	:	11.7	:	1.4	:
Micro	233.1	6.9	15.4	5.3	40.4	:	4.2	26.3	:	:	:	11.4	:	2.3	:
Small	70.7	20.3	12.4	10.1	:	:	22.6	15.0	:	:	:	39.1	:	4.2	:
Medium	199.0	21.8	:	:	:	:	27.3	:	:	:	:	26.8	:	4.1	:
Large	216.3	24.3	:	:	:	:	:	:	:	:	:	6.9	:	1.3	:
Manufacturing (D)															
All sizes	51.2	14.7	10.7	8.0	25.0	10.6	5.5	15.3	:	19.1	:	9.3	:	3.8	:
Micro	29.6	2.9	3.7	5.0	18.3	10.0	1.7	7.6	:	:	:	6.8	:	2.1	:
Small	37.9	12.4	7.3	6.8	24.4	8.3	3.2	8.2	:	:	:	7.5	:	2.9	:
Medium	47.3	15.1	10.3	9.4	:	10.3	5.3	11.8	:	:	:	7.0	:	3.7	:
Large	66.9	19.1	14.4	8.2	:	12.3	7.8	19.9	:	:	:	10.9	:	4.2	:
Electricity, gas and water supply (E)															
All sizes	135.8	34.7	34.2	17.9	138.4	24.2	13.4	23.8	:	:	:	26.2	:	6.0	:
Micro	293.2	13.9	16.0	6.0	:	13.4	9.5	11.5	:	:	:	12.8	:	2.3	:
Small	113.5	17.4	17.6	9.0	:	14.0	:	9.9	:	:	:	11.9	:	2.2	:
Medium	135.5	23.1	16.9	:	:	9.7	6.4	14.8	:	:	:	20.5	:	1.8	:
Large	132.1	38.8	39.5	:	:	30.1	:	26.1	:	:	:	26.8	:	6.5	:
Construction (F)															
All sizes	35.5	14.2	6.6	7.5	27.1	10.0	4.9	9.8	:	21.0	:	6.2	:	3.4	:
Micro	28.3	6.3	3.2	5.1	22.2	8.2	3.1	6.4	:	:	:	6.5	:	2.2	:
Small	35.8	13.7	6.8	5.9	28.8	7.0	4.0	8.8	:	:	:	6.0	:	3.2	:
Medium	42.5	19.2	9.5	9.7	36.7	8.8	5.3	12.6	:	:	:	6.0	:	3.8	:
Large	50.4	27.3	12.9	12.0	28.9	23.5	6.5	12.7	:	:	:	6.3	:	3.4	:
Services (G to I and K)															
All sizes	40.4	14.4	8.3	10.3	:	10.9	6.1	12.3	:	19.0	16.4	9.5	:	5.0	:
Micro	33.0	5.0	:	7.8	:	9.4	3.2	9.0	:	:	12.2	:	:	:	:
Small	40.5	22.4	9.7	10.0	:	9.7	6.2	11.8	:	:	15.4	10.5	:	4.2	:
Medium	48.9	24.9	14.6	:	:	:	6.9	14.7	:	39.4	:	9.4	:	5.5	:
Large	44.2	19.7	:	:	:	:	10.1	13.0	:	28.3	:	:	:	:	:
Distributive trades (G)															
All sizes	35.3	13.7	7.7	8.3	23.9	10.1	4.9	10.8	:	17.7	16.7	9.2	:	3.8	:
Micro	25.9	3.9	3.8	6.7	19.5	9.6	2.7	7.6	:	2.6	11.4	9.3	:	2.6	:
Small	39.1	26.3	10.8	9.0	29.3	9.9	6.0	11.6	:	56.0	16.5	10.4	:	3.9	:
Medium	50.3	28.9	18.1	11.3	:	12.4	7.4	15.0	:	44.4	25.0	9.5	:	5.7	:
Large	38.5	18.1	9.4	7.4	:	7.8	5.7	8.9	:	28.4	31.9	6.9	:	6.6	:
Hotels and restaurants (H)															
All sizes	20.4	5.2	3.6	5.2	:	4.5	2.1	5.8	:	6.3	9.9	4.5	:	2.9	:
Micro	17.5	2.3	:	2.1	:	2.4	1.0	2.9	:	2.3	7.3	:	:	:	:
Small	20.2	5.2	3.1	4.1	:	2.9	2.1	3.6	:	10.2	10.5	3.9	:	1.6	:
Medium	25.0	10.5	10.3	:	:	:	4.7	7.5	:	15.4	14.7	6.7	:	3.6	:
Large	24.8	12.8	:	:	:	:	4.6	10.5	:	14.9	19.1	:	:	:	:
Transport and communications (I)															
All sizes	53.0	18.6	10.6	16.0	:	14.0	8.9	15.0	:	26.6	17.7	9.9	:	8.0	:
Micro	36.8	6.6	2.5	8.6	:	9.1	3.9	13.8	:	7.0	10.8	13.2	:	2.4	:
Small	41.7	18.2	6.1	16.1	:	10.4	6.6	12.1	:	51.2	8.7	9.5	:	4.0	:
Medium	46.9	21.7	11.8	25.0	:	17.7	5.8	16.0	:	34.0	17.8	10.5	:	5.9	:
Large	62.3	22.2	13.5	13.4	:	14.9	12.7	15.2	:	34.1	41.5	9.8	:	9.4	:
Real estate, renting and business activities (K)															
All sizes	48.5	14.7	9.4	10.4	:	11.1	7.2	14.1	:	18.3	18.1	10.7	:	5.2	:
Micro	51.5	8.1	7.6	11.5	:	11.5	5.7	13.2	:	:	18.3	11.6	:	4.4	:
Small	52.7	20.8	11.2	11.4	:	11.3	9.6	15.5	:	:	20.9	12.7	:	7.1	:
Medium	53.9	23.0	12.6	8.9	:	10.6	7.2	15.6	:	36.0	:	9.6	:	5.3	:
Large	40.8	15.3	8.6	7.3	:	10.6	5.8	10.9	:	18.6	:	7.3	:	4.4	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, NewCronos (theme4/sbs/sizeclas).

Table 3.1.2: Average personnel costs, broken down by enterprise size class, 2001 (thousand EUR per employee)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU (1)	MT	PL	SI	SK	BG	RO	TR
Industry and construction (C to F)															
<i>All sizes</i>	:	:	6.9	5.2	:	3.9	3.9	7.3	:	:	13.2	5.2	:	2.6	:
<i>Micro</i>	:	:	6.4	3.2	:	:	1.4	4.1	:	:	8.6	3.9	:	1.2	:
<i>Small</i>	:	:	5.9	4.4	:	:	:	4.8	:	:	:	4.4	:	1.5	:
<i>Medium</i>	:	:	:	:	:	:	3.6	:	:	:	:	4.8	:	1.9	:
<i>Large</i>	:	:	:	:	:	5.4	:	:	:	:	:	5.7	:	3.1	:
Mining and quarrying (C)															
<i>All sizes</i>	45.2	:	9.1	6.5	22.6	4.4	6.0	10.5	:	:	20.4	5.6	:	5.0	:
<i>Micro</i>	:	:	8.6	4.1	22.3	:	1.1	5.2	:	:	10.1	4.3	:	1.1	:
<i>Small</i>	:	:	7.4	5.1	:	:	4.3	6.9	:	:	:	5.6	:	2.3	:
<i>Medium</i>	:	:	:	:	:	:	6.7	:	:	:	:	5.9	:	2.5	:
<i>Large</i>	:	:	:	:	:	:	:	:	:	:	:	5.5	:	5.1	:
Manufacturing (D)															
<i>All sizes</i>	35.6	:	6.7	5.0	16.1	3.7	3.7	7.3	:	:	13.4	5.1	:	2.3	:
<i>Micro</i>	:	:	6.2	3.2	14.8	2.1	1.4	4.5	:	:	9.3	3.9	:	1.2	:
<i>Small</i>	:	:	5.8	4.3	14.6	2.4	2.2	4.9	:	:	11.3	4.5	:	1.4	:
<i>Medium</i>	:	:	6.3	5.9	:	3.6	3.4	6.7	:	:	12.6	4.7	:	1.8	:
<i>Large</i>	:	:	7.2	5.1	:	5.0	5.2	8.5	:	:	16.1	5.5	:	2.6	:
Electricity, gas and water supply (E)															
<i>All sizes</i>	:	:	9.1	7.1	33.3	6.4	6.2	10.6	:	:	19.8	7.0	:	4.3	:
<i>Micro</i>	:	:	6.1	3.8	:	2.5	2.8	9.6	:	:	2.3	4.7	:	2.2	:
<i>Small</i>	:	:	6.7	5.3	:	3.5	:	7.5	:	:	:	5.4	:	1.8	:
<i>Medium</i>	:	:	7.1	:	:	4.5	4.3	7.7	:	:	24.2	5.5	:	2.0	:
<i>Large</i>	:	:	9.8	:	:	7.6	:	11.2	:	:	:	7.2	:	4.6	:
Construction (F)															
<i>All sizes</i>	28.8	:	6.8	5.0	:	3.3	3.4	5.9	:	:	10.7	4.7	:	2.2	:
<i>Micro</i>	23.6	:	6.7	3.1	:	2.1	1.5	3.5	:	:	7.7	3.7	:	1.1	:
<i>Small</i>	27.1	:	6.0	4.3	:	2.8	2.5	4.5	:	:	:	4.3	:	1.7	:
<i>Medium</i>	32.4	:	6.9	6.0	:	3.4	3.8	7.4	:	:	:	4.8	:	2.3	:
<i>Large</i>	39.1	:	8.5	8.3	:	5.6	5.1	10.3	:	:	:	5.7	:	2.6	:

(1) Micro enterprises, 5-9 employees and not 1-9 employees; total for all enterprises covers 5 and more employees.

Source: Eurostat, NewCronos (theme4/sbs/sizeclas).

AVERAGE PERSONNEL COSTS

As noted in the introduction to this subchapter, the competitiveness of a sector is not solely dependent upon having a high level of apparent labour productivity. Indeed, average personnel costs are also an important measure when assessing the competitiveness of a particular sector, as high labour costs can cancel out the benefits of high levels of productivity.

Table 3.1.2 shows average personnel costs broken down by enterprise size class in 2001. The data are presented in thousands of euros per employee for the industrial and construction sectors (no data are available for the services sector). Note that there is a difference in the denominator for average personnel costs (which uses a count of employees) when compared to that used for apparent labour productivity (which is expressed in terms of persons employed).

As with apparent labour productivity, average personnel costs are generally seen to rise as a function of the enterprise size class being studied, with the highest personnel costs for the candidate countries often recorded by large enterprises. Nevertheless, the range of average personnel costs between enterprises of different size classes was generally lower than for apparent labour productivity.

This was particularly true in the Czech Republic, where average personnel costs per employee for large enterprises in the manufacturing sector were 1.2 times higher than for small enterprises (where the lowest average personnel costs were registered). In the electricity, gas and water supply industries the ratio was bigger, as large enterprises recorded average

personnel costs that were 1.6 times those of micro enterprises, while in the construction sector large enterprises registered average personnel costs that were 1.4 times above those recorded by small enterprises.

A similar picture was observed in Slovakia, where for the whole of industry and construction, micro enterprises recorded average personnel costs that were 74 % of the average for all enterprises, while large enterprises recorded the highest personnel costs, some 109 % of the average for all enterprises.

Hungary also reported a relatively narrow range in terms of the variation of average personnel costs between enterprise size classes, except in the construction sector, where average personnel costs per employee in large enterprises were almost three times their level in micro enterprises.

In the other candidate countries for which data are available, there was a larger range in average personnel costs between enterprises from different size classes. This was particularly true in Lithuania, where large manufacturing enterprises recorded average personnel costs per employee that were 3.7 times higher than those registered by micro enterprises. Within the construction sector in Lithuania a similar picture was observed, as personnel costs per employee in large enterprises were 3.4 times higher than those recorded by micro enterprises. The electricity, gas and water supply sectors in Latvia and Slovenia and the mining and quarrying sectors in Lithuania and Romania were the only other activities where the difference between the highest and the lowest average personnel costs reached a factor of at least 3.

3.2: STRUCTURE OF LABOUR COSTS PER EMPLOYEE

This section examines information that has been taken from the Labour Costs Survey. For all tables and graphs that are presented the reference year is 2000. Labour costs are defined as the total sum of expenditure borne by an enterprise with respect to its employees. These include the compensation of employees with wages and salaries in cash and in kind, employers' social contributions, vocational training costs, taxes relating to employment, other expenditures (such as recruitment costs or working clothes provided by the employer), less any subsidies received by the enterprise. These costs play an important role in determining the competitiveness of an enterprise, with large differences in labour costs between different regions of the world.

LABOUR COSTS - DISTRIBUTION ACCORDING TO ENTERPRISE SIZE CLASS

According to the Labour Costs Survey, total labour costs among enterprises with 10 or more employees in the 14 Member States for which data are available (excluding Belgium) reached EUR 2 199 billion in 2000. This figure covers the whole of the business economy, in other words, NACE Sections C to K, which includes extractive industries, manufacturing, the energy sector, construction and most services (including distribution, hotels and restaurants,

transport and communication services, financial and business services)⁽¹⁾. Note that the size classes used for analysis in this section have been left as collected by the survey in order not to compromise the availability of data.

A comparison of total labour costs between the EU and the 11 candidate countries for which data are available (excluding Malta and Turkey) shows that total labour costs in the candidate countries represented approximately 4.5 % of the EU figure in 2000, equivalent to EUR 98.5 billion.

The highest proportion of total labour costs was accounted for by very large enterprises with 1 000 or more employees. Their share of total labour costs amounted to 45.3 % within the 10 candidate countries for which data are available (excluding Malta, Slovenia and Turkey). This figure was some 11.6 percentage points higher than the corresponding share of very large enterprises in total labour costs among the 14 EU Member States for which data are available. Conversely, small enterprises (with between 10 and 49 employees) accounted, on average, for 21.9 % of total labour costs in the 14 EU Member States compared to just 9.0 % of total labour costs within the 10 candidate countries.

(1) Throughout this subchapter: as well as excluding Belgium, EU information for transport and communication services and business services excludes Germany, while information for hotels and restaurants excludes Ireland.

Table 3.2.1: Proportion of total labour costs accounted for by each enterprise size class, NACE Sections C to K, 2000 (%)

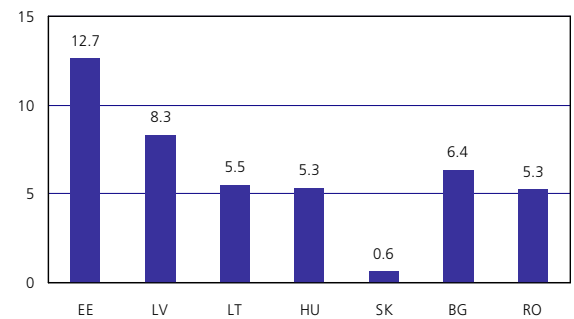
	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
10 to 49 employees	21.8	18.2	30.0	31.6	21.1	20.1	15.0	:	1.6	:	5.3	12.3	8.7	:
50 to 249 employees	21.7	26.6	32.3	32.1	30.2	30.6	22.3	:	12.4	:	16.8	25.4	16.5	:
250 to 499 employees	9.8	10.6	11.8	11.4	13.7	11.0	13.4	:	13.7	:	16.4	16.9	9.2	:
500 to 999 employees	13.0	10.3	10.7	4.9	10.5	10.9	12.7	:	17.0	:	19.9	16.8	12.0	:
1000+ employees	33.6	34.2	15.2	20.0	24.4	27.4	36.6	:	55.4	:	41.6	28.6	53.6	:

Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

Note that for the candidate countries it is possible to present (as shown in figure 3.2.1) the proportion of total labour costs that was accounted for by micro enterprises (i.e. those with less than 10 employees). Their highest share of total labour costs was recorded in Estonia, where they accounted for 12.7 % of total labour costs within the whole business economy; the next highest share was in Latvia (8.3 %).

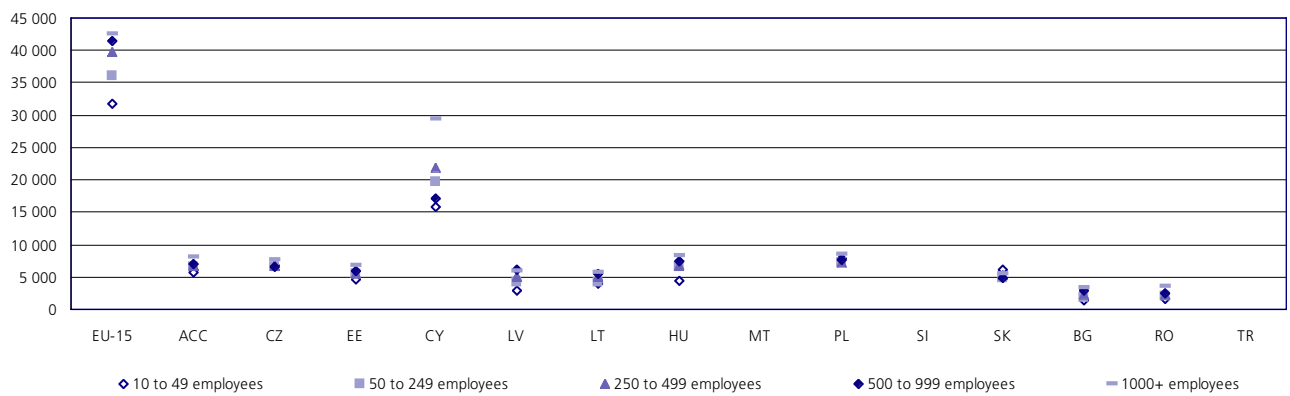
Figure 3.2.2 shows the variation in total labour costs between enterprises of different size classes across the candidate countries, as well as in the EU.

Figure 3.2.1: Proportion of total labour costs accounted for by micro enterprises in the candidate countries, NACE Sections C to K, 2000 (%) (1)



(1) CY, CZ, MT, PL, SI and TR, not available; micro-enterprises, less than 10 employees.
Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

Figure 3.2.2: Annual labour costs of employees, breakdown by enterprise size class, NACE Sections C to K, 2000 (EUR per employee) (1)



(1) MT, SI and TR, not available.
Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

HOURLY LABOUR COSTS - BY ECONOMIC ACTIVITY

The lowest hourly labour costs in 2000 were generally reported within the EU's services sector, more specifically within the activities of hotels and restaurants (Section H), distributive trades (Section G), health and social work (Section N), as well as in the construction sector (Section F). On the other hand, the highest labour costs were reported in the financial intermediation sector (Section J), as well as the activity of electricity, gas and water supply (Section E). These two sectors reported that their average hourly labour costs in the EU reached EUR 30.00 per employee or more, compared to a business economy average of EUR 22.19.

Among the candidate countries almost the same rankings were observed, with hotels and restaurants usually recording the lowest hourly labour costs, while the highest hourly labour costs were registered for financial intermediation, electricity, gas and water supply industries, as well as mining and quarrying. Note that mining and quarrying plays a far more larger role in the candidate country economies than it does in the EU.

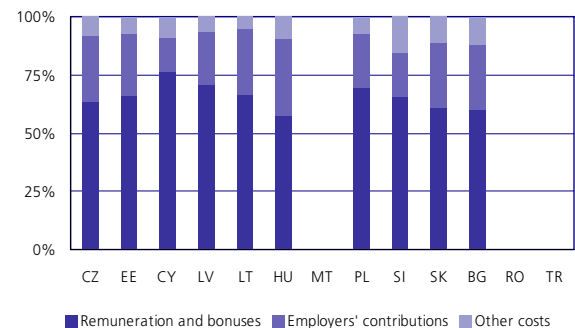
The largest variations between enterprises of different size classes in terms of hourly labour costs were usually recorded within the hotels and restaurants subsector. On average, across all 10 candidate countries for which data are available, enterprises in this subsector paid total costs that ranged from EUR 2.14 per hour within small enterprises (with 10 to 49 employees) to EUR 5.33 per hour for large enterprises (with 500 to 999 employees). Large variations in the level of labour costs were also observed between different enterprise size classes within the activities of public administration and defence, as well as education (Sections L and M). The activities that displayed the least variation in labour costs between enterprises of different size classes included financial intermediation and business services (Sections J and K) - see table 3.2.2.

STRUCTURE OF LABOUR COSTS

It is important to note that although the main constituent of labour costs is wages and salaries, there are a number of other non-wage costs associated with the hiring of personnel, for example, the cost of vocational training, recruitment costs or the cost of providing working clothes to an employee. Furthermore, some of the main differences in the structure of labour costs between countries may be the result of national policies with respect to statutory social security contributions or other taxes. Indeed, this subject area has been extensively studied in relation to competitiveness and employment policy and it is generally agreed that in countries where employers' contributions, administrative burdens and other non-salary labour costs are low, there is a greater chance of additional staff being hired in times of economic expansion.

Table 3.2.3 provides a wider perspective of the breakdown of total labour costs in the business economies of the candidate countries. This table shows the structure of costs, with wages and salaries generally accounting for around three quarters of

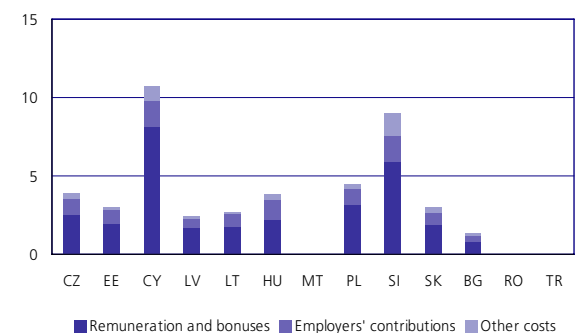
Figure 3.2.3: Structure of labour costs per employee, enterprises with 10 or more employees, NACE Sections C to K, 2000 (1)



(1) MT, RO and TR, not available.

Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

Figure 3.2.4: Average hourly labour costs, enterprises with 10 or more employees, NACE Sections C to K, 2000 (EUR per employee) (1)



(1) MT, SI and TR, not available.

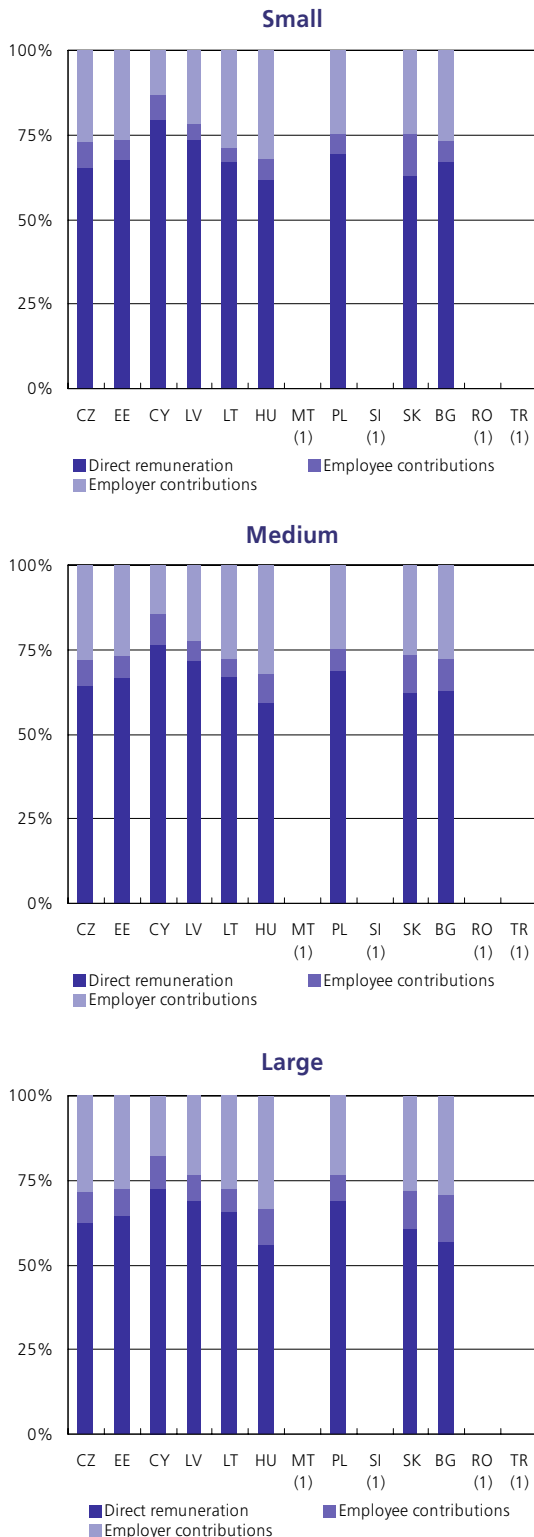
Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

total costs, some 74.9 % in the EU and 74.6 % in the candidate countries. The remainder of total labour costs was largely made-up of employers' contributions, which accounted for 22.5 % of total labour costs in the EU and 20.7 % of total labour costs in the candidate countries.

The share of other labour costs (vocational training, recruitment costs, clothing and other taxes) was often less than 1 % of total labour costs. This was the case, for example, in Cyprus, Latvia and Lithuania. In Slovenia, other labour costs accounted for 4.6 % of total labour costs, with 3.2 % of this total being accounted for by other taxes, whereas in Poland and Romania, other expenditure on recruitment costs and clothing for employees accounted for as much as 6.7 % and 3.3 % of total labour costs.

The structure of total labour costs in the candidate countries is shown in figure 3.2.3, while figure 3.2.4 shows similar information, but for the level of average hourly labour costs.

Figure 3.2.5: Structure of labour costs, breakdown by enterprise size class, 2000 (%)



(1) Not available.

Source: Eurostat, NewCronos (Theme3/lacosts).

As rates for employers' contributions are generally set across the whole of an economy, it is normal to see a fairly constant share of employers' contributions in total labour costs within the same country across economic activities, and this irrespective of the size of the enterprise in question.

Enterprises in the EU with 10 or more employees paid, on average, hourly compensation costs of EUR 22.19 for each employee, out of which EUR 5.45 was accounted for by employers' contributions (almost one quarter of the total, some 24.6 %). Note that the remaining EUR 16.74 was still gross of personal taxes and hence average take-home pay for employees was likely to be lower than this figure.

Within the candidate countries, enterprises with 10 or more employees paid an average of EUR 4.21 of compensation costs in 2000. From this, some EUR 1.07 was accounted for by employers' contributions, equivalent to 25.4 % of the total, a similar share to that recorded in the EU (see figure 3.2.3). The majority of the 10 candidate countries for which hourly labour cost data are available (excluding Malta, Romania and Turkey) reported that employers' contributions accounted for between 20 % and 30 % of total labour costs. Cyprus and Slovenia were two exceptions to this rule, where employers' contributions represented less than 20 % of labour costs, while Hungary was the only candidate country to report a share above 30 %.

A breakdown of the structure of labour costs by enterprise size class is given within figure 3.2.5. Average labour costs per employee tended to rise with the average size of an enterprise. Indeed, large enterprises recorded the highest hourly labour costs in the EU, as enterprises with 500 or more employees reported compensation costs of more than EUR 25.00 per hour per employee in 2000. Among the candidate countries, very large enterprises (with 1 000 or more employees) recorded the highest hourly labour costs (EUR 4.60 per hour per employee), while the lowest labour costs were registered by small (EUR 3.13) and micro enterprises (EUR 1.75).

Table 3.2.4: Hourly labour costs, NACE Sections C to K, 2000 (EUR per employee) (1)

	EU-15	ACC	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
<10 employees															
<i>Compensation</i>	:	1.75	:	2.01	:	1.13	1.75	1.89	:	:	:	3.60	0.53	0.66	:
<i>Wages and salaries</i>	:	1.23	:	1.48	:	0.88	1.24	1.26	:	:	:	2.78	0.35	0.42	:
<i>Employers' contributions</i>	:	0.52	:	0.53	:	0.25	0.51	0.63	:	:	:	0.82	0.18	0.24	:
10+ employees															
<i>Compensation</i>	22.19	4.21	3.90	3.03	10.74	2.42	2.71	3.83	:	4.48	8.98	3.06	1.35	1.51	:
<i>Wages and salaries</i>	16.74	3.14	2.81	2.21	9.11	1.87	1.95	2.57	:	3.42	7.31	2.22	0.97	1.01	:
<i>Employers' contributions</i>	5.45	1.07	1.09	0.82	1.63	0.55	0.76	1.26	:	1.06	1.67	0.84	0.38	0.50	:
10 to 49 employees															
<i>Compensation</i>	18.17	3.13	3.71	2.57	8.56	1.64	2.26	2.50	:	3.76	:	3.45	0.77	0.91	:
<i>Wages and salaries</i>	13.79	2.30	2.69	1.89	7.43	1.28	1.61	1.70	:	2.84	:	2.61	0.57	0.62	:
<i>Employers' contributions</i>	5.45	0.83	1.02	0.68	1.13	0.36	0.65	0.80	:	0.92	:	0.84	0.20	0.29	:
50 to 249 employees															
<i>Compensation</i>	20.98	3.63	3.70	3.09	10.85	2.31	2.45	3.69	:	3.95	:	2.82	1.10	1.15	:
<i>Wages and salaries</i>	15.95	2.67	2.67	2.26	9.27	1.80	1.77	2.51	:	2.98	:	2.08	0.80	0.78	:
<i>Employers' contributions</i>	5.45	0.96	1.03	0.83	1.58	0.51	0.68	1.18	:	0.97	:	0.74	0.30	0.37	:
250 to 499 employees															
<i>Compensation</i>	23.39	3.84	3.75	3.10	11.78	2.81	2.90	3.84	:	4.04	:	3.10	1.43	1.23	:
<i>Wages and salaries</i>	17.63	2.84	2.71	2.25	9.93	2.16	2.09	2.59	:	3.05	:	2.29	1.02	0.82	:
<i>Employers' contributions</i>	5.45	1.00	1.04	0.85	1.85	0.65	0.81	1.25	:	0.99	:	0.81	0.41	0.41	:
500 to 999 employees															
<i>Compensation</i>	25.16	3.98	3.77	3.34	9.64	3.51	3.09	4.26	:	4.25	:	2.89	1.73	1.36	:
<i>Wages and salaries</i>	18.35	2.95	2.72	2.43	8.39	2.69	2.24	2.86	:	3.24	:	2.09	1.23	0.91	:
<i>Employers' contributions</i>	5.45	1.03	1.05	0.91	1.25	0.82	0.85	1.40	:	1.01	:	0.80	0.50	0.45	:
1000+ employees															
<i>Compensation</i>	25.15	4.60	4.30	3.90	16.92	3.30	3.32	4.81	:	4.87	:	3.20	2.15	2.05	:
<i>Wages and salaries</i>	19.03	3.42	3.08	2.81	13.58	2.51	2.40	3.19	:	3.73	:	2.28	1.51	1.37	:
<i>Employers' contributions</i>	5.45	1.18	1.22	1.09	3.34	0.79	0.92	1.62	:	1.14	:	0.92	0.64	0.68	:

(1) ACC, average for available countries.

Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

As with the average for all candidate countries, some 8 out of the 10 candidate countries for which data are available (excluding Malta, Slovenia and Turkey) reported that their highest hourly labour costs were recorded by very large enterprises with 1 000 or more employees; exceptions were Latvia and Slovakia.

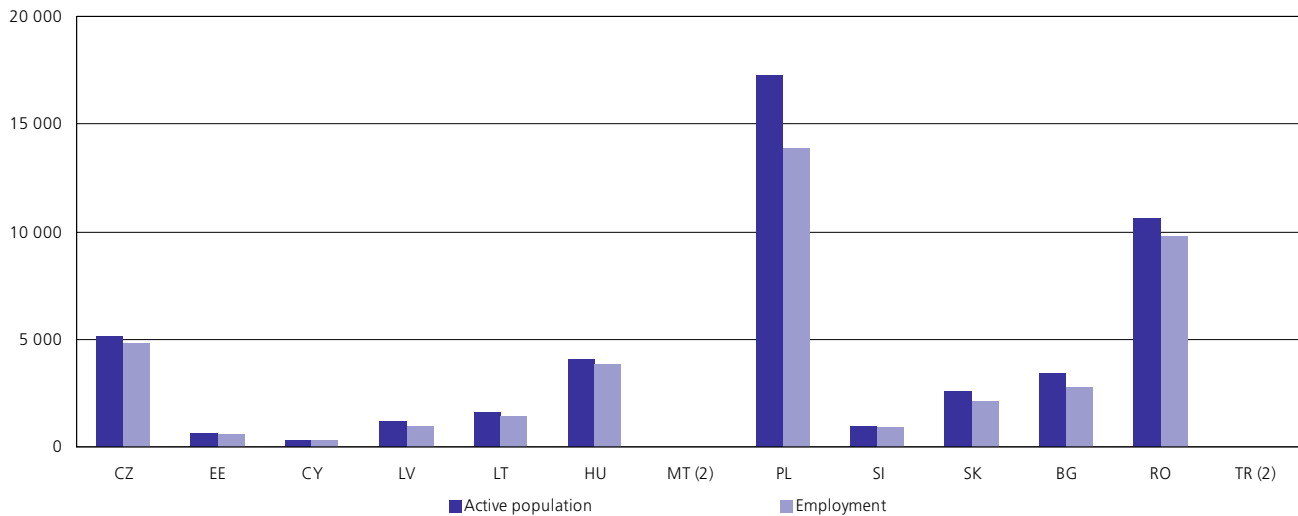
The pattern in Slovakia was the opposite of that displayed in the other candidate countries, as micro enterprises recorded the highest hourly labour costs (EUR 3.60 per employee). In Latvia, the highest hourly labour costs were registered by large enterprises with between 500 to 999 employees (EUR 3.51 per hour), somewhat above the labour costs faced by very large enterprises with 1 000 or more employees (EUR 3.30 per hour) - see table 3.2.4.

3.3: LABOUR FORCE CHARACTERISTICS

Figure 3.3.1 provides an overview regarding the number of persons in the candidate countries in 2002 who were active (i.e. employed or seeking employment) as well as the level of employment. In the Czech Republic, Cyprus, Hungary, Slovenia and Romania unemployment rates were relatively low

compared to the other candidate countries. This is confirmed in figure 3.3.2, which provides some background information on short-term and long-term unemployment rates.

Figure 3.3.1: Active population and employment (thousands), 2002 (1)

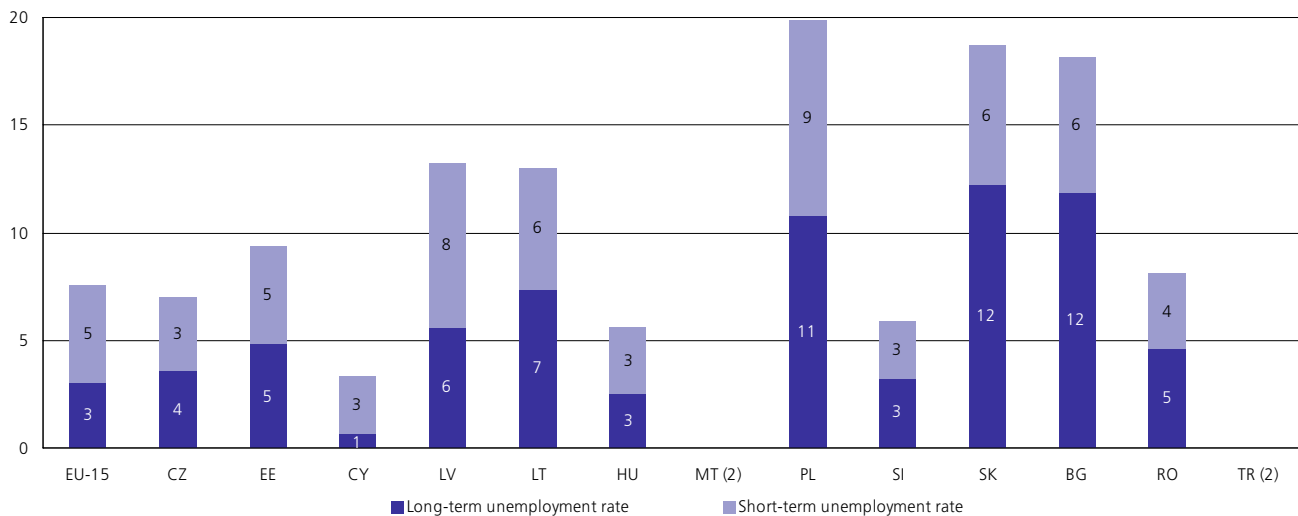


(1) Active population is defined as the sum of employed and unemployed persons in the age group 15 to 74.

(2) Not available.

Source: Eurostat, NewCronos (Theme1/cc/c_pac_cc).

Figure 3.3.2: Long-term and short-term unemployment rates, 2002 (%) (1)



(1) Long-term unemployment is defined as unemployment lasting twelve months or longer.

(2) Not available.

Source: Eurostat, NewCronos (Theme1/cc/c_pac_cc).

Table 3.3.1: Number of employees, NACE Sections C to K, 2000 (thousands)

	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
<10 employees													
Part-time	:	9.5	:	27.1	26.2	13.9	:	:	:	0.4	15.7	6.9	:
Full-time	:	50.6	:	59.1	32.7	153.8	:	:	:	4.7	170.2	374.4	:
Total	:	60.1	:	86.2	58.9	167.7	:	:	:	5.0	185.8	381.3	:
10+ employees													
Part-time	125.7	15.6	4.9	28.3	52.7	69.0	:	:	5.2	31.7	31.0	27.4	:
Full-time	2 118.2	248.3	105.0	363.3	484.2	1 461.2	:	5 021.6	412.9	954.0	1 071.5	3 112.6	:
Total	2 243.9	263.9	109.9	391.6	536.9	1 530.2	:	:	418.0	985.8	1 102.6	3 140.0	:
10 to 49 employees													
Part-time	27.7	6.4	1.4	15.9	25.0	19.8	:	:	:	1.9	10.0	5.2	:
Full-time	396.9	87.0	41.2	107.8	109.6	321.7	:	76.4	:	43.2	215.6	443.8	:
Total	424.6	93.5	42.6	123.7	134.6	341.6	:	:	:	45.1	225.6	449.1	:
50 to 249 employees													
Part-time	29.5	5.1	0.8	6.6	16.8	14.4	:	:	:	8.1	10.4	6.4	:
Full-time	598.4	77.8	33.9	116.7	165.6	338.0	:	680.9	:	167.7	332.8	640.1	:
Total	627.9	83.0	34.7	123.3	182.4	352.4	:	:	:	175.8	343.2	646.5	:
250 to 499 employees													
Part-time	15.2	2.3	1.7	1.3	2.9	7.9	:	:	:	6.0	6.0	2.1	:
Full-time	230.0	28.4	10.1	44.8	51.2	195.2	:	756.0	:	153.1	170.8	335.0	:
Total	245.2	30.7	11.8	46.1	54.0	203.1	:	:	:	159.2	176.8	337.1	:
500 to 999 employees													
Part-time	10.9	1.2	0.5	0.5	1.7	6.5	:	:	:	10.3	3.6	4.7	:
Full-time	228.6	24.1	5.8	27.8	47.0	169.6	:	896.1	:	198.8	145.8	402.1	:
Total	239.5	25.3	6.2	28.3	48.7	176.1	:	:	:	209.1	149.4	406.8	:
1000+ employees													
Part-time	42.4	0.5	0.5	4.0	6.4	20.4	:	:	:	5.5	1.1	8.9	:
Full-time	664.3	30.9	14.1	66.2	110.8	436.6	:	2 612.1	:	391.2	206.5	1 291.6	:
Total	706.7	31.5	14.6	70.2	117.2	457.1	:	:	:	396.6	207.6	1 300.5	:

Source: Eurostat; Labour Costs Survey (theme3/lacosts/y2000/nat00).

This subchapter examines a number of labour force characteristics, such as rates of part-time work, the gender balance in terms of employment and the educational attainment of the labour force. These characteristics are often considered as important for the competitiveness of modern economies, for example, with respect to the adaptability of labour markets and the skills of the labour force.

INCIDENCE OF PART-TIME WORK

The majority of countries in the EU reported that large enterprises had the highest number of employees working on a part-time basis in 2000. On the other hand, in the candidate countries, the Czech Republic, Hungary and Romania were the only countries to report the same pattern, and in the Baltic States the highest number of employees working on a part-time basis was found within micro and small enterprises (with less than 50 employees).

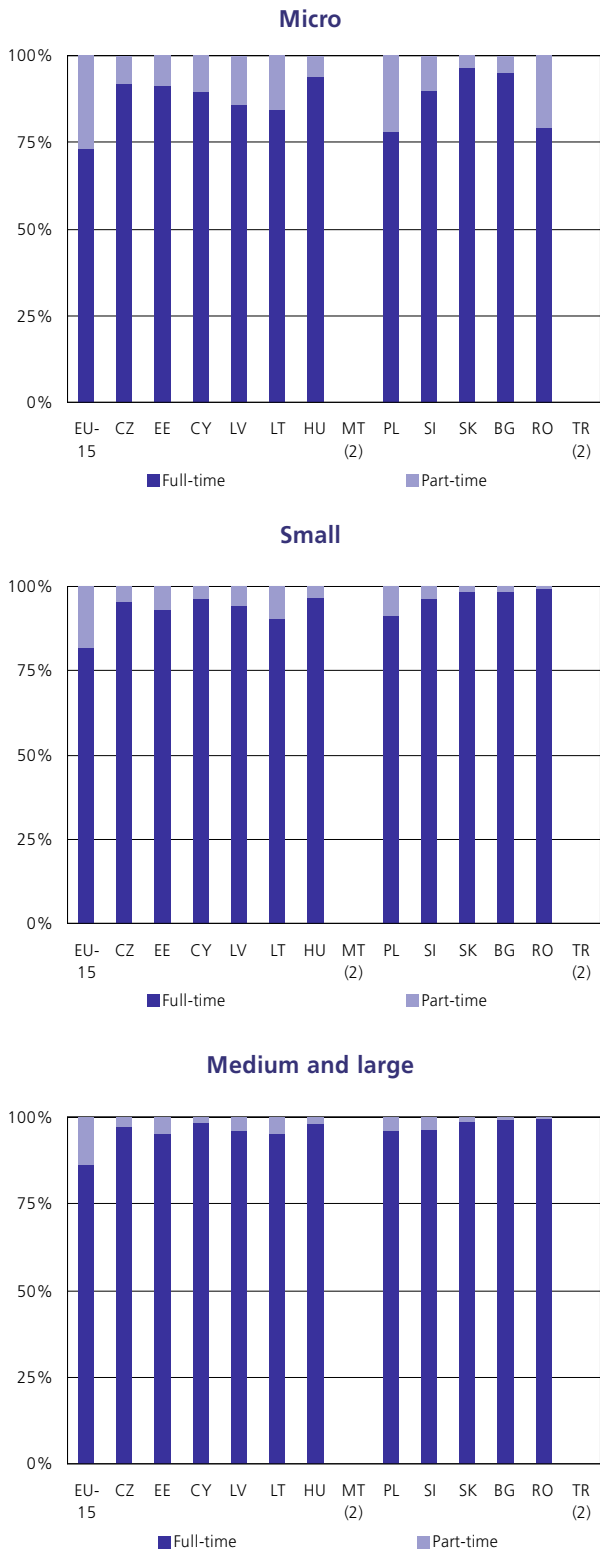
The relative importance of part-time employment can be studied by looking at the share of the total number of employees working on a part-time basis. Information is available for 11 of the candidate countries (excluding Malta and Turkey), and this shows that the incidence of part-time work in the candidate countries was generally much lower than that observed in the EU.

Lithuania reported the highest proportion of employees working on a part-time basis in 2000, some 13 % of the total, while Latvia (11.6 %) was the only other candidate country to report that more than one in ten employees had a part-time employment contract. At the other end of the range, Bulgaria, Cyprus, Hungary and Slovakia all reported that less than 5 % of employees worked on a part-time basis, a share that fell to 1.2 % in Slovenia and 1.0 % in Romania.

In the 7 candidate countries for which data are available (Bulgaria, Estonia, Hungary, Latvia, Lithuania, Romania and Slovakia) the proportion of employees working on a part-time contract within micro enterprises (with less than 10 employees) was always higher than the corresponding proportion working part-time within enterprises with 10 or more employees. The share of part-time employment in micro enterprises varied considerably from just 1.8 % of the total in Romania to almost half (44.5 %) of the workforce in Lithuania (see table 3.3.1).

This first analysis of part-time employment is based upon data from the Labour Costs Survey (LCS). It is also possible to use information from the Labour Force Survey (LFS) to study the prevalence of part-time employment in the candidate countries; this source also provides further information on other variables in relation to employment characteristics. It is important to note that the LCS is an enterprise survey, whereas the LFS is a survey of individuals/households, whereby individuals respond to a questionnaire rather than enterprises. Furthermore, LFS data are available for the reference period 2002.

Figure 3.3.3: Structure of employment by time spent at work, 2002 (%) (1)



(1) Excluding item non-response.

(2) Not available.

Source: Eurostat, Labour Force Survey.

Turning to LFS data for 2002, there was confirmation that the share of persons working on a part-time basis decreased as the average size of an enterprise rose (see figure 3.3.3). Indeed, in the largest candidate countries, micro enterprises used considerably more part-time staff. This was particularly the case in Poland and Romania, where the share of part-time employment was just under 30 % in 2002 among micro enterprises. For comparison, the corresponding figure for the EU was 37 %. Lithuania and Poland reported the highest share of part-time employment among small enterprises, around 10 % of total employment, at half the EU average. Within medium-sized and large enterprises, the proportion of part-time employment did not rise above the threshold of 5 % of total employment within the candidate countries, while the corresponding figure for the EU was around 15 %. Slovakia, Bulgaria and Hungary registered the lowest use of part-time employment in each of the enterprise size-classes, as did Romania outside of the micro size-class.

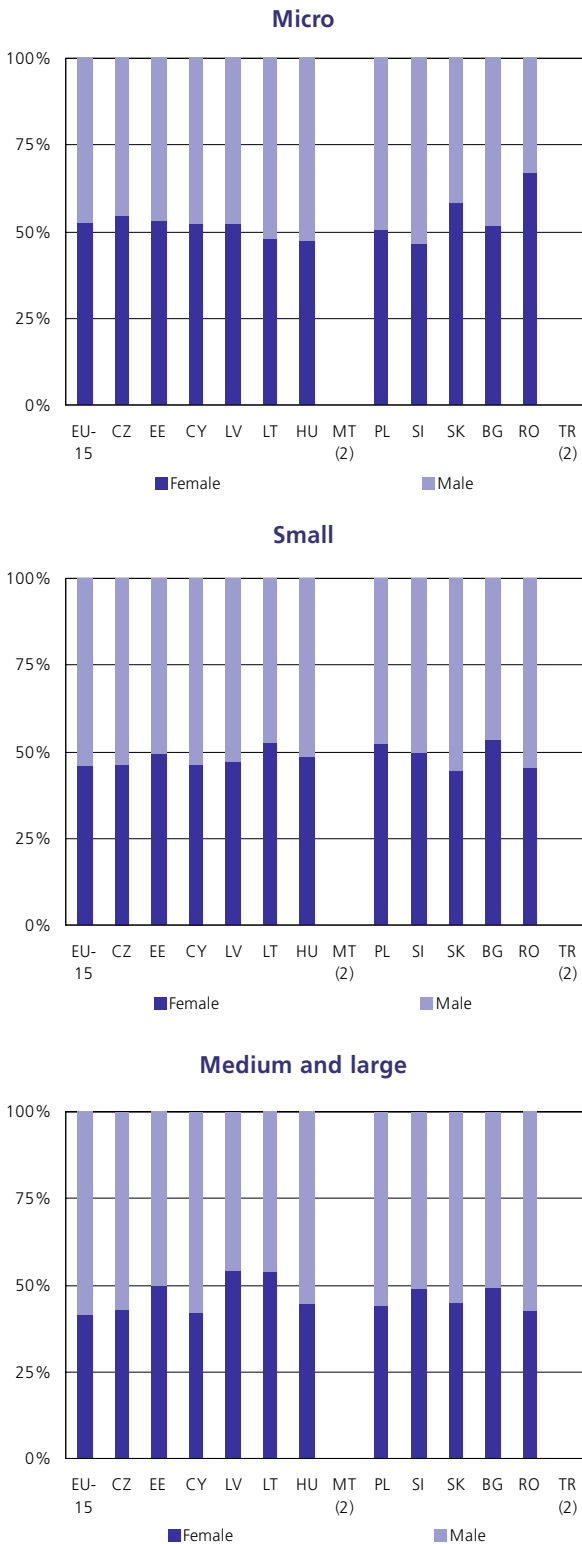
HOURS WORKED

The average number of hours worked per employee can be expressed in full-time equivalents (FTEs), removing the effect of different part-time employment rates between countries. Using these figures, the average employee worked 1 714 hours in the EU during the course of 2000, while the equivalent figure within the candidate countries and the acceding countries was 1 796 and 1 793 hours respectively (among enterprises with 10 or more employees). Within the candidate countries, data ranged from an average of 1 725 hours worked in Slovenia and 1 736 hours worked in Bulgaria to 1 830 hours worked in Cyprus and 1 850 hours worked in Latvia.

Across activities, the mining and quarrying sector reported the lowest number of average hours worked within the acceding countries, some 1 677 in 2000, while employees in the construction and services sectors worked, on average, the longest hours. Within the services sector, this was particularly true in the activities of distributive trades, hotels and restaurants, and real estate, renting and business activities (Sections G, H and K) - see table 3.3.2.

When considering the size class dimension, employees from micro or small enterprises frequently recorded the highest number of average hours worked. In the EU, employees within small enterprises with 10 to 49 employees worked an average of 104 hours per year more than their counterparts in large enterprises with between 500 and 999 employees. A similar pattern was observed in the acceding countries, where employees working for micro and small enterprises worked, on average, 1 875 and 1 864 hours per year, while employees in large enterprises with 1 000 or more persons worked an average of 1 766 hours.

Figure 3.3.4: Structure of employment by gender in the candidate countries, 2002 (%) (1)



(1) Excluding item non-response.

(2) Not available.

Source: Eurostat, Labour Force Survey.

COMPOSITION OF LABOUR FORCE - GENDER, AGE AND EDUCATION LEVEL

When looking at the structure of the labour force, in terms of gender, there were more women than men working in micro enterprises in the EU in 2002 (see figure 3.3.4). This pattern was true in most of the candidate countries, with the exception of Lithuania, Hungary and Slovenia. In Romania, women accounted for two thirds (67 %) of the workforce within micro enterprises. Within small enterprises there was generally a lower proportion of women employed, when compared to the corresponding proportions recorded for micro enterprises. Indeed, Lithuania, Poland and Bulgaria were the only countries to report that women made-up the majority of the labour force. Among large enterprises, the majority of the workforce in Latvia and Lithuania were women, for all other countries the opposite was true.

The structure of labour force in terms of age is shown in table 3.3.3. The largest age group is that of people aged from 30 to 49 and this age group generally reports the highest share of persons employed across size classes and activities. In relative terms, people aged 15 to 29 were proportionally somewhat more commonly found within micro and small enterprises. On the other hand, within large enterprises, people aged from 50 and over were, in relative terms, more numerous.

When looking at the education level of the labour force in 2002, the number of persons employed with a low education level did not represent more than 20 % of the total in any of the candidate countries, except Cyprus and Romania (see table 3.3.4). For comparison, in the EU, this share was 24.3 %. A medium level of education was the most common education level within the candidate countries, while the proportion of the labour force that had a higher education level ranged from 12.9 % in Romania to 52.3 % in Lithuania.

Across enterprise size-classes there were no major differences in education levels. However, the general trend was that a slightly higher proportion of the labour force among medium-sized and large enterprises possessed a higher education. The Czech Republic, Hungary, Slovenia, Slovakia and Bulgaria were the only countries where this was not the case. In the other candidate countries the proportion of persons with a higher education level working in medium-sized or large enterprises was never more than 4 percentage points above the equivalent ratio in small enterprises. However, when compared to micro enterprises the differences were sometimes much larger. This was particularly the case in Cyprus, Latvia, Lithuania, Poland and Romania, where the proportion of the labour force that had a higher education was more than 10 percentage points above the corresponding proportion for micro enterprises.

Table 3.3.3: Structure of employment by age in the candidate countries, 2002 (%) (1)

	Age	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
All	15-29	22.6	23.7	20.9	25.9	21.8	22.1	26.4	:	25.0	22.4	25.8	19.1	26.1	:
	30-49	55.3	50.6	51.6	53.9	53.1	56.3	53.5	:	57.1	60.6	57.5	56.4	55.8	:
	50+	22.1	25.7	27.5	20.3	25.2	21.6	20.0	:	17.9	17.0	16.7	24.5	18.1	:
Micro	15-29	23.3	23.1	18.2	26.5	22.4	26.8	28.1	:	32.9	26.4	26.7	25.7	32.3	:
	30-49	51.2	52.2	51.9	52.9	51.9	53.6	53.2	:	48.5	53.5	58.3	53.3	40.1	:
	50+	25.5	24.7	29.9	20.6	25.7	19.6	18.7	:	18.6	20.1	15.1	21.0	27.6	:
Small	15-29	24.4	25.7	23.6	26.7	24.8	22.2	25.6	:	27.3	23.6	:	19.8	:	:
	30-49	55.0	50.4	51.9	54.8	52.5	59.6	53.6	:	56.2	62.9	:	56.5	:	:
	50+	20.7	23.9	24.5	18.5	22.7	18.1	20.7	:	16.6	13.6	:	23.7	:	:
Medium and large	15-29	20.9	22.5	19.3	24.5	16.7	19.9	26.1	:	19.4	17.6	25.1	13.7	21.4	:
	30-49	57.4	49.8	51.2	54.2	55.4	55.7	53.6	:	62.2	66.3	56.2	58.5	65.8	:
	50+	21.7	27.7	29.5	21.4	27.9	24.4	20.3	:	18.3	16.1	18.8	27.8	12.8	:

(1) Excluding item non-response.

Source: Eurostat, Labour Force Survey.

Table 3.3.4: Structure of employment by education level in the candidate countries, 2002 (%) (1)

	Education	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
All	Low	24.3	7.9	9.9	25.6	13.5	8.5	16.3	:	10.2	17.9	6.1	15.1	23.2	:
	Medium	49.9	78.9	57.7	40.7	63.3	39.2	65.9	:	71.5	65.8	80.7	55.9	63.9	:
	High	25.8	13.2	32.4	33.7	23.2	52.3	17.8	:	18.3	16.3	13.1	29.1	12.9	:
Micro	Low	31.4	8.4	8.7	34.3	19.1	13.0	14.9	:	18.7	19.2	6.0	19.0	50.1	:
	Medium	47.7	81.8	62.1	42.7	65.5	43.7	71.4	:	72.1	70.4	84.7	58.9	45.1	:
	High	21.0	9.8	29.3	22.9	15.3	43.2	13.7	:	9.2	10.4	9.4	22.1	4.7	:
Small	Low	26.1	6.9	11.4	22.3	12.5	6.0	16.7	:	8.6	13.4	5.6	13.6	10.3	:
	Medium	50.5	78.2	57.3	37.8	61.3	39.4	62.8	:	70.7	65.3	79.2	51.5	73.1	:
	High	23.4	14.9	31.3	39.9	26.2	54.6	20.5	:	20.8	21.3	15.2	34.9	16.6	:
Medium and large	Low	20.0	8.3	8.8	18.4	7.5	8.0	16.7	:	6.7	19.4	6.7	13.5	9.0	:
	Medium	50.3	77.9	55.9	40.7	63.4	37.1	65.0	:	71.6	61.6	79.2	57.5	73.6	:
	High	29.7	13.8	35.3	40.9	29.0	54.9	18.2	:	21.7	19.0	14.1	29.0	17.4	:

(1) Excluding item non-response.

Source: Eurostat, Labour Force Survey.

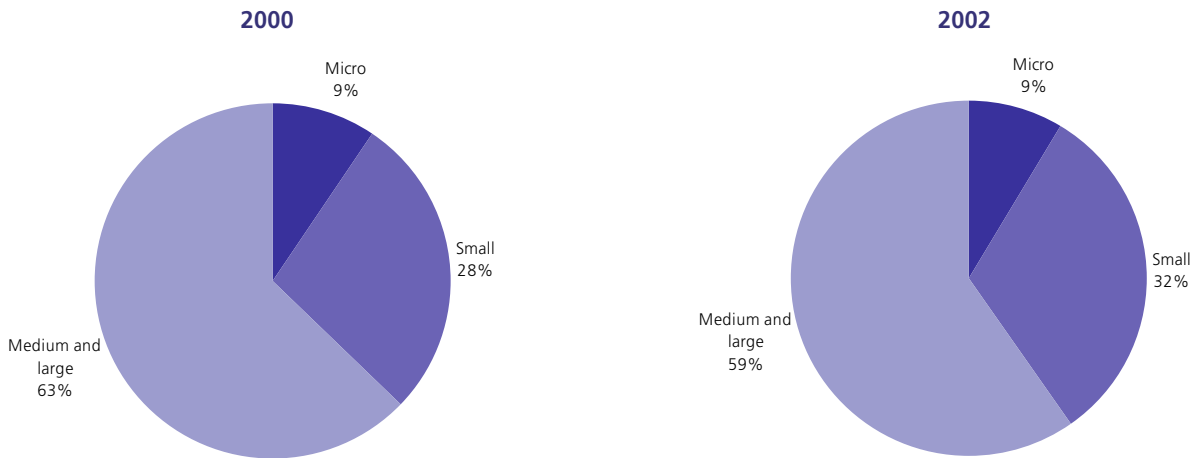
Table 3.3.5: Structure of the employment by activity and by size of the enterprise, 2002 (%) (1)

	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
Industry, construction and services (C to K)														
Micro	18.6	23.5	:	:	:	22.0	27.6	:	22.8	37.0	27.4	30.1	14.6	:
Small	36.1	31.3	:	:	:	29.4	29.4	:	27.7	24.0	33.8	29.7	28.5	:
Medium and large	45.3	45.2	:	:	:	48.7	43.1	:	49.5	39.0	38.9	40.2	56.8	:
Mining and quarrying (C)														
Micro	7.3	7.1	:	15.4	:	6.3	7.9	:	1.2	4.5	9.8	0.6	0.3	:
Small	27.6	20.0	:	70.3	:	11.0	18.6	:	2.6	24.5	15.3	14.0	15.4	:
Medium and large	65.1	72.8	:	14.3	:	82.7	73.5	:	96.2	71.0	74.9	85.3	84.3	:
Manufacturing (D)														
Micro	8.5	11.3	7.4	35.1	14.6	9.9	12.0	:	9.5	23.8	11.5	10.7	5.0	:
Small	32.0	25.7	36.7	37.5	42.4	24.7	25.1	:	25.9	20.7	34.3	28.4	22.9	:
Medium and large	59.5	63.1	55.9	27.4	43.0	65.4	62.9	:	64.6	55.5	54.2	60.9	72.1	:
Electricity, gas and water supply (E)														
Micro	7.6	13.4	16.7	:	27.2	2.6	8.3	:	3.8	32.8	20.2	6.3	4.5	:
Small	24.1	27.2	25.9	:	32.4	12.7	30.1	:	15.3	17.7	28.7	18.7	25.9	:
Medium and large	68.3	59.4	57.3	:	40.3	84.8	61.7	:	80.9	49.5	51.1	75.0	69.7	:
Construction (F)														
Micro	26.8	19.6	18.4	41.1	34.8	19.1	37.0	:	27.7	49.9	24.1	22.5	7.5	:
Small	45.5	50.2	51.3	27.9	53.7	32.5	38.9	:	37.1	27.2	51.0	50.3	40.6	:
Medium and large	27.6	30.2	30.3	31.1	11.5	48.5	24.1	:	35.2	22.9	24.9	27.2	51.9	:
Distributive trades (G)														
Micro	29.0	50.7	43.0	58.9	58.1	46.9	50.5	:	51.9	54.7	59.7	69.0	48.3	:
Small	39.0	32.4	44.0	26.1	29.9	32.0	29.1	:	29.8	28.8	29.2	25.0	37.4	:
Medium and large	32.0	16.9	12.9	15.0	12.0	21.2	20.4	:	18.3	16.5	11.1	6.0	14.3	:
Hotels and restaurants (H)														
Micro	36.9	53.7	31.9	32.9	:	40.9	48.8	:	35.4	52.6	58.2	54.2	40.0	:
Small	43.3	37.2	57.2	21.2	:	49.4	37.9	:	46.6	28.8	32.9	36.7	44.2	:
Medium and large	19.8	9.1	10.9	46.0	:	9.8	13.3	:	18.1	18.6	8.9	9.1	15.9	:
Transport, storage and communication (I)														
Micro	11.6	22.7	15.8	19.4	27.4	14.0	20.6	:	14.3	40.8	27.4	19.7	11.2	:
Small	33.3	30.6	49.3	26.2	30.5	28.2	26.0	:	22.1	26.7	28.6	27.9	29.3	:
Medium and large	55.1	46.8	34.9	54.4	42.1	57.8	53.3	:	63.6	32.5	44.0	52.4	59.5	:
Financial intermediation (J)														
Micro	12.9	14.3	8.9	25.5	27.6	3.0	19.7	:	13.3	24.5	18.8	17.3	15.3	:
Small	29.7	33.6	24.5	32.9	25.6	39.2	37.3	:	32.5	28.2	30.3	41.5	41.1	:
Medium and large	57.4	52.1	66.6	41.6	46.7	57.8	43.0	:	54.2	47.3	50.9	41.2	43.6	:
Real estate, renting and business activities (K)														
Micro	23.0	35.9	27.7	42.7	28.3	22.2	40.3	:	22.3	57.5	35.3	38.9	15.1	:
Small	38.1	40.5	46.8	32.9	48.2	39.5	36.7	:	33.0	22.3	36.0	39.6	33.2	:
Medium and large	38.9	23.6	25.5	24.3	23.5	38.3	23.0	:	44.6	20.2	28.7	21.5	51.7	:

(1) Excluding item non-response.

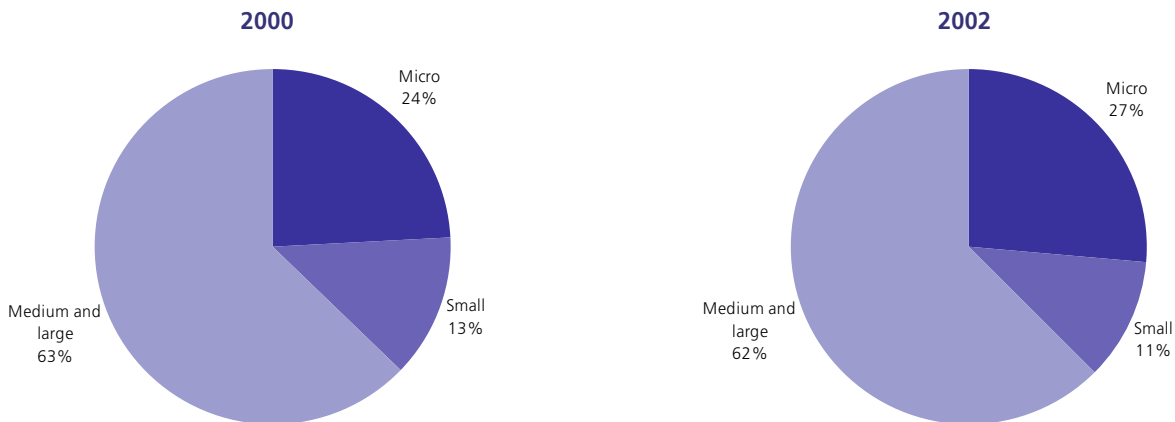
Source: Eurostat, Labour Force Survey.

Figure 3.3.5: Evolution of employment distribution by size class in the EU, manufacturing, 2000-2002 (%) (1)



(1) Excluding item non-response.
Source: Eurostat, Labour Force Survey.

Figure 3.3.6: Evolution of employment distribution by size class in the acceding countries, manufacturing, 2000-2002 (%) (1)



(1) Aggregate includes CZ, EE, CY, HU, PL, SI and SK; excluding item non-response.
Source: Eurostat, Labour Force Survey.

The data presented in this section have shown a number of characteristics with respect to the labour force in the candidate countries. In general there are only a few differences with respect to the profile of the EU labour force. One of the most striking, is the low frequency of part-time employment in some candidate countries. Otherwise, the characteristics of the labour force are influenced by the economic activity being studied. Hence, there are a high number of micro enterprises and small enterprises within the activities of distributive trade and hotels and restaurants in

most candidate countries and this can be linked to relatively high rates of female and part-time employment. On the other hand, in traditional activities where there are proportionally more medium-sized and large enterprises, for example, mining and quarrying, manufacturing, electricity, gas and water supply, transport, storage and communication, and financial intermediation, there is a considerably higher proportion of men in employment and a low level of part-time employment.

3.4: EDUCATION AND TRAINING

This section focuses on education and training, two key elements that can be used to raise the competitiveness of successful enterprises. In some countries there are distinct skills shortages, perhaps caused by a lack of supply of qualified labour in particular fields, or alternatively a lack of specific experience, for example, in terms of managerial and entrepreneurial talents. Indeed, this latter reason is often cited as one of the major problems faced by SMEs, perhaps because managers in SMEs are sometimes less qualified and may have received less formal training.

It is generally considered easier for large enterprises to organise in-house training, due to the economies of scale that they benefit from, that result in several people being able to follow the same training course.

The data presented in this subchapter comes from three sources: a joint UNESCO, OECD and Eurostat project on education statistics, the Labour Force Survey (LFS) and the continuing vocational training survey (CVTS).

EDUCATION

When comparing public expenditure on education in relation to GDP (see table 3.4.1), the highest ratios were recorded in Estonia, where between 1993 and 2002 education accounted for approximately 7 % of GDP. Latvia also recorded relatively high values, around the 6 % level. The lowest levels of expenditure on education, using this measure, were recorded in Romania and Turkey, where values were in the range of 3 % to 4 %.

Table 3.4.1: Public expenditure on education as % of GDP

	EU-15	CC-13	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
1993	:	:	5.3	7.1	4.6	6.1	4.6	6.3	5.0	5.4	:	4.7	5.1	3.0	3.7
1994	:	:	5.4	6.6	4.8	6.1	5.6	6.1	5.0	4.9	:	3.9	4.2	3.0	2.9
1995	5.2	:	4.9	7.0	4.8	7.0	5.3	5.0	5.0	5.5	:	5.0	3.4	3.3	2.4
1996	5.2	:	5.0	7.3	5.0	5.8	5.3	4.5	5.3	5.1	:	4.5	2.6	3.6	2.6
1997	5.0	:	4.7	7.1	5.7	5.7	5.5	4.6	5.5	5.2	:	4.8	2.6	3.2	2.9
1998	5.1	:	4.2	6.8	5.8	6.8	6.1	4.6	5.2	5.4	:	4.5	3.2	4.4	3.2
1999	5.0	:	4.3	7.4	5.7	6.3	6.3	4.7	5.1	5.2	:	4.4	3.7	3.4	3.1
2000	4.9	:	4.4	6.7	5.6	5.9	5.8	4.5	4.9	5.1	:	4.2	4.4	2.9	3.5
2001	:	:	4.3	6.8	5.9	6.4	6.0	4.5	4.7	:	:	4.1	3.7	3.3	:
2002	:	:	4.4	7.3	6.1	:	:	:	6.5	:	:	4.1	:	3.0	:

Source: Eurostat, NewCronos (Theme3/educ).

Table 3.4.2: Graduates of tertiary education programmes, 2001 (units) (1)

	CZ	EE	CY (2)	LV	LT	HU (2)	MT	PL	SI	SK	BG	RO	TR
Tertiary programmes with academic orientation													
- all first degrees	25 854	2 272	464	18 165	11 617	47 436	1 160	240 976	4 960	23 588	20 166	66 644	142 275
- second degree	8 031	3 402	38	:	6 895	8 452	513	180 730	713	:	22 208	:	12 144
Tertiary programmes with occupation orientation													
- first qualification	8 678	1 777	2 144	2 106	8 698	1 201	324	4 998	5 828	2 152	4 754	9 586	85 060
- second qualification	:	:	154	:	:	:	:	:	192	:	:	:	:
Second stage of tertiary education leading to an advanced research qualification - level 6	1 066	149	13	37	261	793	6	4 400	298	532	376	:	1 985

(1) Education classification used: ISCED 1997. (2) 2000.

Source: Eurostat, NewCronos (Theme3/educ).

Comparing candidate country data with that of the EU during the period 1995 to 2000, Cyprus and the Baltic States, in particular Estonia, were above the EU average (around 5 %). In contrast, the Czech Republic, Hungary, Slovakia, Bulgaria, Romania and Turkey recorded values that were below the EU average. Malta and Poland recorded similar rates of expenditure on education in relation to GDP to those registered in the EU.

The development of expenditure on education in relation to GDP saw the Czech Republic, Hungary and Slovakia all report that education accounted for a declining share of GDP, while Cyprus and Malta had increasing shares.

Table 3.4.2 presents data on the number of graduates in each of the candidate countries in 2001, broken down by type of degree. Compared to the EU there was relatively more focus on academic degrees in the candidate countries than on degrees with an occupational orientation. This is likely to be the result of a change in the balance of degree courses offered within the EU, reflected in the increasing importance in recent years for occupational degrees that prepare students for a particular occupation, rather than academic studies.

TRAINING

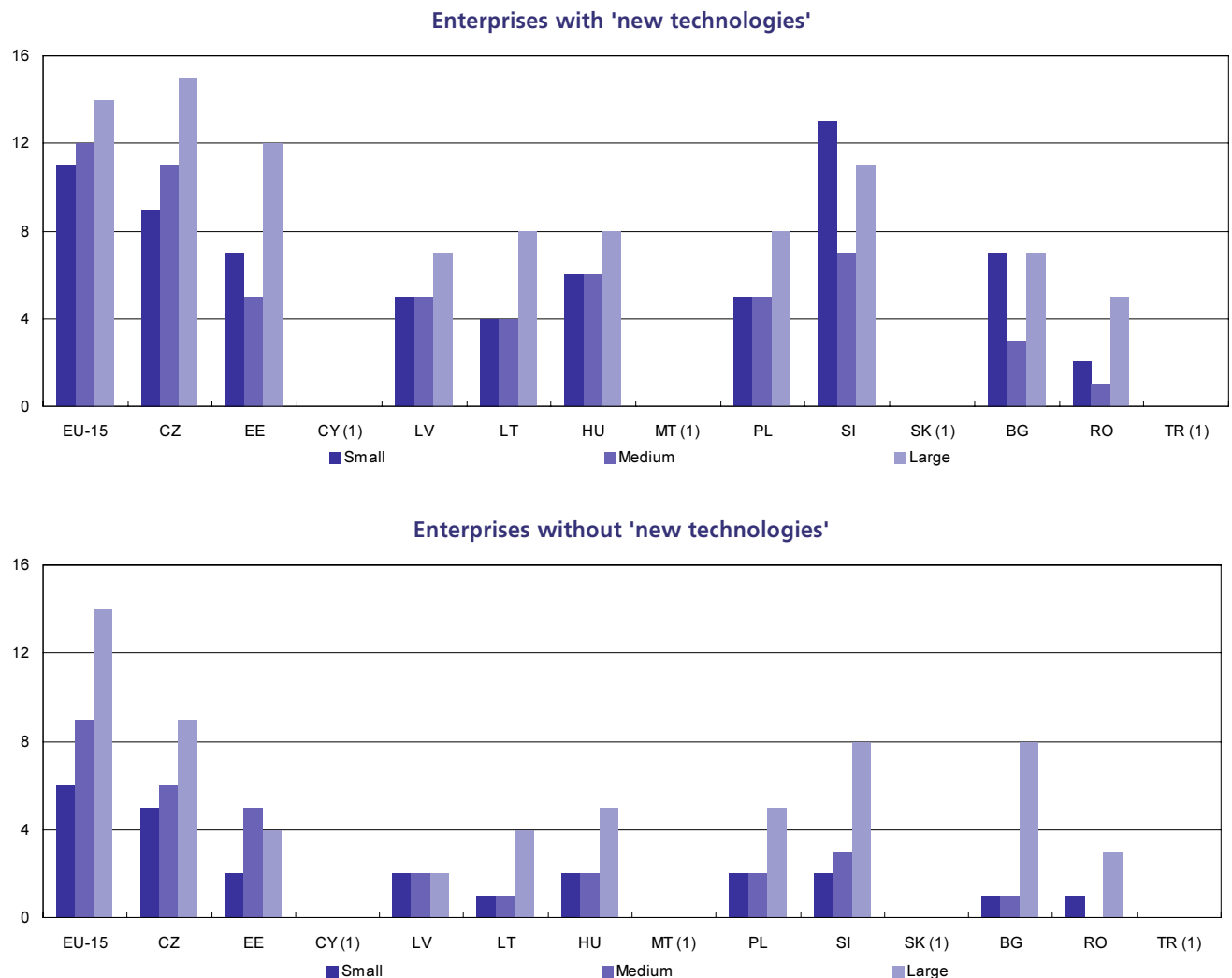
In 1999, the Czech Republic (69 %) and Estonia (63 %) reported the highest proportion of enterprises providing training within the candidate countries. Indeed, both of these countries reported a higher proportion of enterprises providing continuing vocational training (CVT) programmes than the EU average (62 %). The candidate country where the smallest proportion of enterprises provided training was Romania, where only 11 % of enterprises were engaged in training.

Table 3.4.3: Main indicators for training, 1999

	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
Proportion of all enterprises providing training (%)														
Average	62	69	63	:	53	43	37	:	39	48	:	28	11	:
Small	56	62	58	:	49	37	32	:	36	35	:	24	8	:
Medium	81	84	85	:	70	60	51	:	52	72	:	34	13	:
Large	96	96	96	:	91	80	79	:	63	96	:	62	38	:
Proportion of all enterprises providing internal CVT courses (%)														
Average	30	23	13	:	5	3	9	:	9	16	:	7	2	:
Small	24	16	9	:	3	1	6	:	7	6	:	4	1	:
Medium	51	35	29	:	9	6	14	:	16	31	:	9	3	:
Large	80	71	72	:	34	26	45	:	37	61	:	33	20	:
Enterprises with CVT courses: proportion of employees participating (%)														
Average	47	49	28	:	25	20	26	:	33	46	:	28	20	:
Small	43	42	27	:	31	23	32	:	31	50	:	27	30	:
Medium	42	42	25	:	22	15	22	:	28	35	:	22	19	:
Large	49	53	30	:	24	22	26	:	37	50	:	29	20	:
Average hours spent in CVT courses per participant (hours)														
Average	31	25	31	:	34	41	38	:	28	24	:	35	42	:
Small	33	26	31	:	39	48	45	:	34	43	:	40	57	:
Medium	32	24	26	:	33	39	38	:	27	24	:	24	40	:
Large	30	25	35	:	32	41	36	:	26	23	:	36	42	:

Source: Eurostat, NewCronos (theme3/training/cvts/cvts2).

Figure 3.4.1: Average hours spent in CVT courses per employee, 1999 (units)



(1) Not available.

Source: Eurostat, NewCronos (theme3/training/cvts/cvts2).

The average hours spent in CVT courses per participant ranged between 24 hours and 42 hours across the candidate countries, with Slovenia marking the lower-end and Romania the upper-end. Five of the nine candidate countries with data available reported values which were similar to, or higher, than the EU average (31 hours), while the Czech Republic, Poland and Slovenia were somewhat below these levels, and Estonia reported figures in line with the EU average.

Broken down by enterprise size class, it is interesting to note that small enterprises tended to provide somewhat more training for their employees in terms of average hours spent in CVT courses, while a lower proportion of employees attended such courses. In other words, when a small enterprise decided to commit itself to providing training for an employee, it was likely that the employee would, on average, receive more training than if they had been working in a large enterprise. This pattern was confirmed in all candidate countries, with the exception of Estonia, where large enterprises accounted for the highest average number of hours spent per employee on CVT.

Across size classes, the EU recorded values within a narrow range separated by just 3 hours difference between the highest average time spent in training (recorded by small enterprises, 33 hours) and the lowest average time (recorded by large enterprises, 30 hours). In some of the candidate countries, the differences between size classes were considerable, as for example, in Bulgaria, where participants on training courses from small enterprises spent an average of 40 hours, compared to 24 hours for medium-sized enterprises and 26 hours for large enterprises.

Figure 3.4.1 shows the average hours spent in CVT courses per employee according to the type of technology used by the enterprise. In general, employees from enterprises with new technologies spent more hours in CVT courses than those working for enterprises without new technologies. This pattern could be observed across enterprises of all size classes.

Table 3.4.4: Hours spent in CVT courses, by field of training, 1999 (% of total hours in CVT courses)

	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
Accounting, finance														
Average	5	7	13	:	11	9	11	:	6	7	:	2	4	:
Small	7	12	16	:	16	14	14	:	11	8	:	10	11	:
Medium	6	10	8	:	13	17	15	:	8	12	:	8	7	:
Large	5	6	14	:	9	6	9	:	3	6	:	1	3	:
Computer science/computer use														
Average	17	11	5	:	12	8	13	:	8	10	:	7	5	:
Small	23	9	5	:	12	8	11	:	13	8	:	4	2	:
Medium	20	9	7	:	6	5	11	:	9	11	:	18	17	:
Large	15	11	5	:	14	9	14	:	5	11	:	6	5	:
Engineering and manufacturing														
Average	16	13	19	:	22	23	22	:	23	23	:	27	6	:
Small	13	6	22	:	10	20	14	:	16	33	:	33	10	:
Medium	14	10	19	:	29	21	16	:	23	23	:	22	5	:
Large	17	15	17	:	24	24	27	:	26	21	:	27	6	:
Environment protection, occupational health and safety														
Average	9	7	4	:	5	6	6	:	2	7	:	3	2	:
Small	10	11	4	:	6	3	5	:	1	5	:	2	3	:
Medium	9	11	6	:	4	6	5	:	3	9	:	4	4	:
Large	9	5	2	:	6	7	7	:	2	7	:	3	2	:
Languages														
Average	4	14	7	:	10	14	7	:	6	12	:	6	3	:
Small	3	12	7	:	8	3	8	:	4	10	:	9	0	:
Medium	5	16	10	:	8	8	8	:	6	12	:	9	2	:
Large	4	13	6	:	12	18	7	:	8	12	:	5	4	:
Management and administration														
Average	11	8	8	:	9	8	5	:	5	5	:	4	3	:
Small	7	6	9	:	9	16	5	:	4	4	:	5	6	:
Medium	9	7	13	:	8	8	6	:	4	5	:	6	4	:
Large	12	8	6	:	9	7	5	:	7	6	:	4	3	:
Office work														
Average	2	1	1	:	2	1	2	:	1	1	:	0	0	:
Small	2	1	1	:	2	1	1	:	2	0	:	1	0	:
Medium	3	1	2	:	3	1	2	:	1	1	:	1	1	:
Large	2	1	0	:	2	1	2	:	1	2	:	0	0	:
Other field of training														
Average	10	20	16	:	9	18	14	:	10	6	:	45	8	:
Small	11	17	11	:	8	30	17	:	8	8	:	9	8	:
Medium	12	18	7	:	11	19	15	:	11	4	:	17	5	:
Large	10	21	22	:	9	16	13	:	10	6	:	51	8	:
Personal skills/development, working life														
Average	12	8	12	:	6	6	4	:	22	15	:	1	59	:
Small	10	7	6	:	3	2	2	:	13	12	:	1	19	:
Medium	11	7	4	:	6	5	5	:	9	10	:	3	35	:
Large	12	9	18	:	7	8	4	:	33	17	:	0	62	:
Sales and Marketing														
Average	9	7	12	:	8	4	9	:	7	6	:	3	3	:
Small	10	8	15	:	12	3	14	:	10	8	:	4	31	:
Medium	8	6	21	:	10	6	11	:	11	11	:	10	4	:
Large	9	7	8	:	5	3	8	:	3	5	:	2	2	:
Services														
Average	5	5	3	:	6	2	6	:	9	7	:	2	6	:
Small	3	11	4	:	15	2	8	:	19	5	:	22	10	:
Medium	3	6	5	:	3	4	7	:	15	3	:	2	15	:
Large	6	4	1	:	4	2	4	:	3	9	:	0	5	:

Source: Eurostat, NewCronos (theme3/training/cvts/cvts2).

Table 3.4.4 provides an overview concerning the volume of hours spent in CVT courses by field of training; the data are expressed as a proportion of the total number of hours spent in CVT courses. For most enterprises in the candidate countries, training in the fields of engineering and manufacturing were particularly important. This result differs considerably from that recorded in the EU, where computer science was the most often attended training course. By far the least popular field of training among those studied was skills in office work; this observation held true in both the candidate countries and the EU. In most of the fields of training there were no considerable size class differences apparent. However, in the field of accounting and finance, a

higher proportion of employees from small enterprises (compared to large enterprises) received training. Sales and marketing and services were other areas where a higher proportion of employees followed a training course within small enterprises. In contrast, in the field of personal skills/development, large enterprises provided, on average, more hours of training to their employees.

CVT in work situations and CVT at conferences, workshops, lectures and seminars were by far the most frequent types of training provided by enterprises who engaged in training (see table 3.4.5). This was also reflected across enterprises of all size classes.

Table 3.4.5: Types of training undertaken, 1999 (% of enterprises engaged in type of training)

	EU-15	CZ	EE	CY	LV	LT	HU	MT	PL	SI	SK	BG	RO	TR
Continued training at conferences, workshops, lectures and seminars														
Average	69	84	86	:	77	83	72	:	72	93	:	62	45	:
Small	65	81	85	:	74	78	69	:	66	92	:	58	34	:
Medium	76	89	87	:	81	90	78	:	89	94	:	65	47	:
Large	88	94	91	:	89	94	86	:	100	92	:	74	65	:
Job rotation, exchanges or secondments														
Average	30	8	20	:	8	5	15	:	34	19	:	19	28	:
Small	29	6	18	:	6	4	14	:	37	10	:	19	24	:
Medium	32	11	22	:	12	5	15	:	24	25	:	18	34	:
Large	46	18	41	:	17	14	25	:	27	35	:	23	27	:
Learning/quality circles														
Average	23	10	17	:	14	10	12	:	4	31	:	27	27	:
Small	21	6	14	:	12	11	9	:	4	12	:	25	26	:
Medium	29	15	27	:	18	8	14	:	3	44	:	25	27	:
Large	38	23	43	:	27	15	25	:	11	61	:	46	28	:
Self-learning														
Average	29	30	26	:	28	18	20	:	20	23	:	32	26	:
Small	26	26	25	:	26	17	18	:	21	24	:	32	28	:
Medium	33	35	29	:	32	17	21	:	18	21	:	28	23	:
Large	48	45	37	:	48	27	30	:	23	24	:	38	25	:
Continued vocational training in work situation														
Average	71	49	43	:	61	38	54	:	56	53	:	65	59	:
Small	68	43	39	:	58	36	52	:	57	42	:	61	47	:
Medium	78	54	54	:	67	38	54	:	46	62	:	68	66	:
Large	82	76	70	:	85	62	70	:	69	71	:	80	73	:

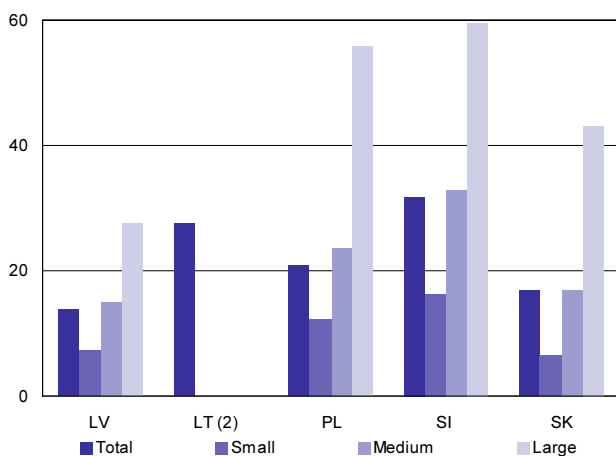
Source: Eurostat, NewCronos (theme3/training/cvts/cvts2).

3.5: INNOVATION AND PATENTS

Having presented an analysis of the human resources used and available to enterprises in terms of labour force characteristics, as well as education and training levels, this subchapter deals with two further areas which are important determinants of the competitiveness of an economy; namely, innovation and patents. The analysis concludes with a case study with respect to innovation activity in Estonia.

Note that in the majority of the candidate countries, R&D and innovation have only recently emerged as policy concerns and that statistical surveys in this field are often still in the process of being set-up and developed. Within the EU the collection of innovation statistics is carried out every four years by means of a Community Innovation Survey. The third Community Innovation Survey (CIS3) was carried out in 2001 and refers to reference year 2000.

Figure 3.5.1: Propensity to innovate in the manufacturing sector, broken down by size class (%) (1)



(1) LV, LT, SI, 1998; SK, 1999; PL, 2000.

(2) Data for small, medium-sized and large enterprises, not available.

Source: Eurostat, NewCronos (theme9/rd_cec).

INNOVATION

The proportion of enterprises with innovation activity is only available for a limited set of five candidate countries: Latvia, Lithuania, Poland, Slovenia and Slovakia. Data cover the manufacturing sector, where there was a fairly wide range in innovation propensities, rising from 13.7 % of all manufacturing enterprises in Latvia to 31.9 % in Slovenia (see figure 3.5.1).

Generally, during the period 1998 to 2000 (reference years change according to the country being studied), the proportion of enterprises with innovation activity tended to grow as a function of enterprise size. When comparing to the results from CIS3 in the EU, a similar pattern was observed, with innovation activity generally rising with the average size of the enterprise. Indeed, the proportion of enterprises with innovation activity in medium-sized enterprises in the candidate countries (for which data are available) was generally twice as high as it was for small enterprises, while in turn, among large enterprises it was often double that of medium-sized enterprises.

There were proportionally more small manufacturing enterprises with innovation activity in Slovenia than in any of the other candidate countries for which data are available, and the same was true for medium-sized and large enterprises. The lowest proportion of enterprises with innovation activity among small manufacturing enterprises was registered in Slovakia, whereas Latvia recorded the lowest proportions for medium-sized and large manufacturing enterprises.

PATENTS

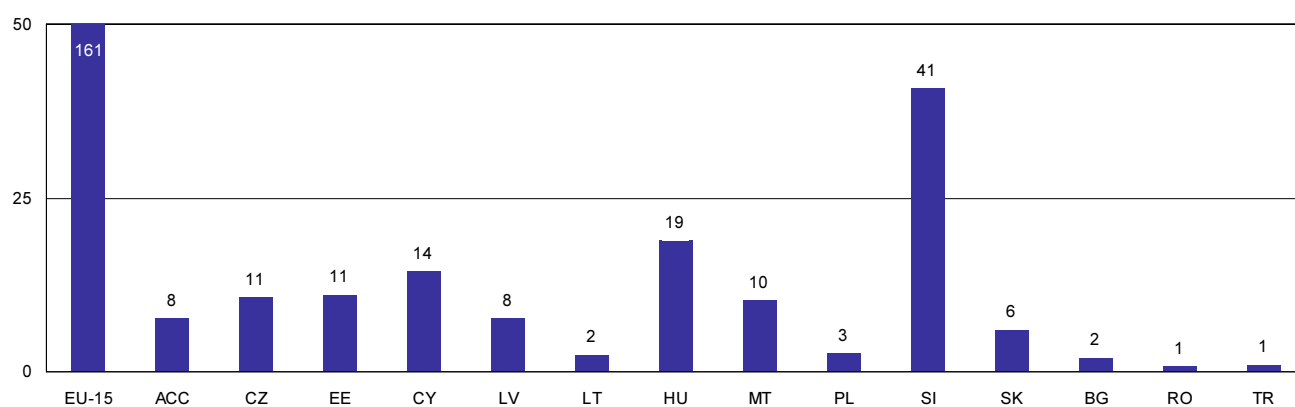
Patent applications to the European Patent Office (EPO) are shown in figure 3.5.2. Patent applications can be viewed as a measure of innovation output, with respect to the protection of intellectual property rights. Note that the data presented refer only to patent applications made to the EPO and that applications to National Patent Offices are not included.

In 2001 there were approximately 7.6 patent applications per million inhabitants across the 10 acceding countries, compared to an average of 161 applications within the EU. Slovenia was the main exception among the candidate countries, as it reported applications at a much higher level than the remaining countries, some 40.7 applications per million inhabitants. The second highest rate was recorded in Hungary, at half the level of Slovenia. The lowest patent application rates were recorded in Poland, Lithuania, Bulgaria, Turkey and Romania, where 3.0 or less patent application were made, on average, for each million inhabitants.

It is also worth considering that there are widespread fluctuations for this indicator, as a result of national identity and character. Not all inventions are patented and enterprises have a number of alternative means to protect the results of their invention or innovation activity, for example, through industrial secrecy or rapid product launches.

As such, the data on innovation, where Slovenia was identified as the candidate country with the highest propensity to innovate (irrespective of the size-class being studied), was reinforced by the data on patents, where Slovenia again reported figures that were more closely aligned to EU averages than to the other candidate countries. Otherwise, in the remaining candidate countries for which data are available, the use of patents and the proportion of enterprises with innovation activity were considerably lower than in the EU.

Figure 3.5.2: Patents applications to the EPO per million inhabitants, 2001



Source: Eurostat, NewCronos (theme9/patents).

INNOVATION IN ESTONIA

Estonia took part in the third Community Innovation Survey (CIS3) on a voluntary basis, collecting data for the reference period 1998 to 2000. The data presented in this box come from the publication 'Innovation in Estonian enterprises 1998-2000', which was published by the Estonian National Statistical Office⁽¹⁾.

The innovation survey in Estonia was based on the following enterprise size classes: small, medium-sized and large enterprises. When available, data for micro enterprises (defined as 3 to 9 employees) were also provided. No data were collected for enterprises with 1 or 2 persons employed. Note that the enterprise size classes differ to the standard definitions employed elsewhere in this publication and that these size classes are also different to those employed in the 15 Member States who also conducted CIS3 (where only enterprises with 10 or more employees were surveyed). Micro enterprises were defined in the Estonian survey as having 3-9 employees, while the small and medium-sized size classes were each broken up into two sub-sets.

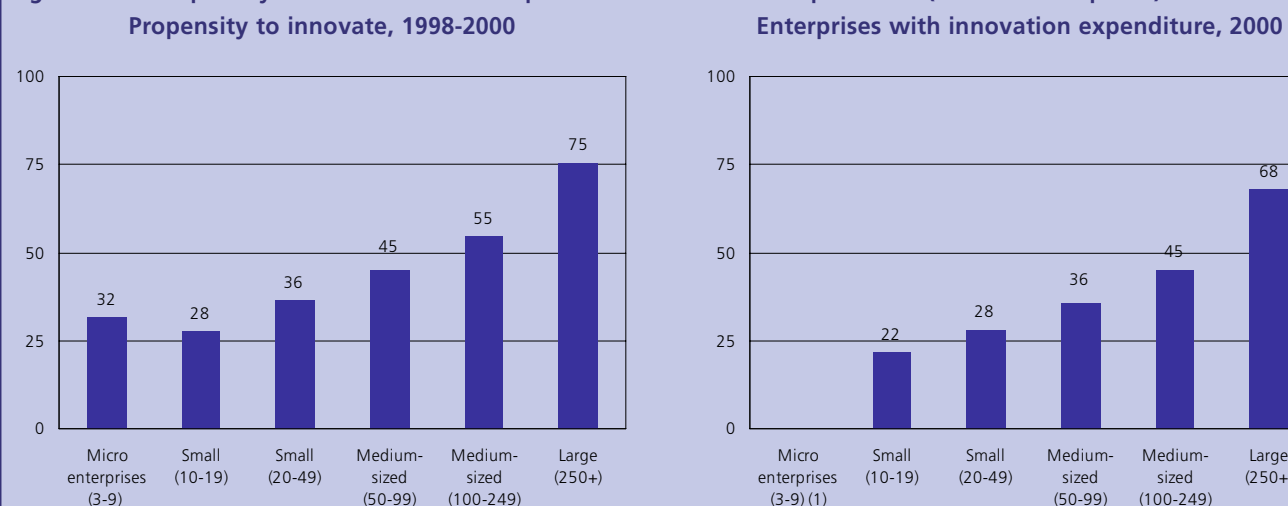
The proportion of enterprises with innovation activity in the Estonian business economy tended to increase as a function of the enterprise size class being considered. While 75 % of large enterprises (with 250 or more employees) in Estonia had some form of innovation activity, the corresponding proportion among medium-sized enterprises with between 50 and 99 employees was 45 %, falling to 28 % among small enterprises with between 10 and 19 employees. The pattern of a growing proportion of enterprises with innovation activity as a function of the size of an enterprise was also generally valid when looking at a breakdown between the manufacturing and services sectors.

(1) Publication available on the web-site of the Statistical Office of Estonia, at: <http://www.stat.ee>

Table 3.5.1: Types of innovators, 1998-2000 (%)

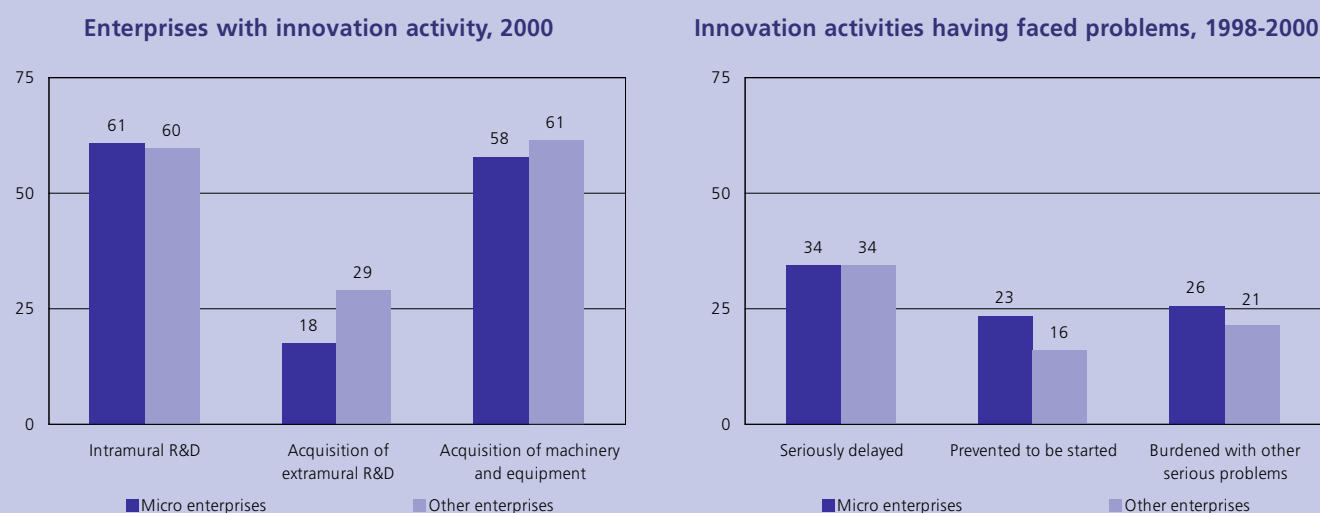
	Micro enterprises (3 to 9 employees)	Other enterprises (more than 9 employees)
Enterprises with innovation activity	31.8	47.1
Product innovators		
Propensity to innovate	23.4	36.9
Who developed these products:		
Mainly the enterprise	63.9	59.8
Enterprise group	5.2	11.8
In co-operation with other enterprises or institutions	22.6	20.1
Mainly other enterprises or institutions	8.3	8.3
Process innovators		
Propensity to innovate	19.2	31.8
Who developed these products:		
Mainly the enterprise	42.6	54.3
Enterprise group	3.1	11.1
In co-operation with other enterprises or institutions	26.1	23.2
Mainly other enterprises or institutions	28.1	11.5

Source: Innovation in Estonian enterprises 1998-2000, Estonian National Statistical Office.

Figure 3.5.3: Propensity to innovate and enterprises with innovation expenditure (% of all enterprises)


(1) Number of enterprises with innovation expenditure, not available.
Source: Innovation in Estonian enterprises 1998-2000, Estonian National Statistical Office.

Figure 3.5.4: Innovation activity (% of enterprises with innovation activity)



Source: Innovation in Estonian enterprises 1998-2000, Estonian National Statistical Office.

A similar pattern was also observed when looking at the share of enterprises that made some form of innovation expenditure in 2000, as the share rose from small to medium-sized to large enterprises (see figure 3.5.3). When innovating, enterprises in Estonia with innovation activity found their main sources of information for innovation within the enterprise itself. A higher proportion of large enterprises, compared to small or medium-sized enterprises, tended to use internal sources of information for innovation during the period 1998 to 2000. Suppliers, clients or customers were also highly important sources of innovation information, for all enterprise size classes.

Innovation activity in Estonia was mainly conducted within the enterprise itself, as was the case for more than half of the enterprises surveyed, independent of their size class (see table 3.5.1). When enterprises with innovation activity did not develop their innovation activity within the enterprise, they tended to do so in co-operation with other enterprises or institutions.

For manufacturing enterprises with innovation activity, the main effect of their innovation activity was to improve the quality of the goods and services being provided; this held true for enterprise from all size classes. For a relatively high proportion of small enterprises, innovation permitted an increase in the range of goods or services being offered. Among medium-sized enterprises in Estonia's manufacturing sector, increased production capacity was the most important effect of innovation, while an important share of large enterprises cited all three of these effects as being highly important (see table 3.5.2). In the services sector, enterprises from all size classes increased their range of goods and services, and their quality, as a result of innovation activity.

Table 3.5.2: Sources and effects of innovation, 1998-2000 (% of enterprises with innovation activity)

	Small	Medium	Large
Manufacturing: sources for innovation			
<i>Within enterprise</i>	32	34	36
<i>Suppliers of equipment, materials, components or software</i>	20	30	34
<i>Clients or customers</i>	22	28	24
Manufacturing: effects of innovation			
<i>Improved quality in goods and services</i>	29	32	26
<i>Increased range on goods and services</i>	24	26	27
<i>Increased production capacity</i>	20	28	27
Manufacturing: hampering factors (all enterprises)			
<i>High innovation costs</i>	25	26	18
<i>Lack of appropriate sources of finance</i>	34	30	19
<i>Lack of information on technology</i>	4	3	10
Services: sources for innovation			
<i>Within enterprise</i>	39	46	48
<i>Suppliers of equipment, materials, components or software</i>	25	21	48
<i>Clients or customers</i>	27	21	28
Services: effects of innovation			
<i>Improved quality in goods and services</i>	28	29	24
<i>Increased range on goods and services</i>	29	22	28
Services: hampering factors (all enterprises)			
<i>High innovation costs</i>	20	19	18
<i>Lack of appropriate sources of finance</i>	25	16	19
<i>Lack of information on technology</i>	3	1	5

Source: Innovation in Estonian enterprises 1998-2000, Estonian National Statistical Office.

It seems that the most common problem faced by Estonian enterprises trying to innovate was delayed projects; around one third, irrespective of their size, had innovation projects delayed. A higher proportion of micro enterprises than other enterprises could not even start their innovation projects. Innovation costs and a lack of appropriate sources of finance were important hampering factors for innovation among small and medium-sized enterprises in Estonia.

4.

METHODOLOGY AND SOURCES

4.1 METHODOLOGY

The main source of data is an annual survey of enterprises. In some countries small enterprises are not surveyed, or alternatively the data for the number of enterprises is derived from the business register, while other variables are taken from other surveys or administrative sources (which may lead to inconsistencies). The number of enterprises is defined as 'a count of the the number of enterprises registered to the population concerned in the business register corrected for errors, in particular frame errors. Dormant units are excluded. This statistic should include all units active during at least part of the reference period'.

STRUCTURAL BUSINESS STATISTICS (SBS)

The most frequently used data source in this publication is the Structural Business Statistics (SBS) database. The data is collected within the legal framework of Council Regulation (EC, EURATOM) No. 58/97 of December 1996 concerning structural business statistics⁽¹⁾.

The statistical unit used in SBS is the enterprise. The following economic activities were included in the target population: NACE Sections C to I and K, covering what is referred to here

(1) Council Regulation (EC, Euratom) No 58/97 of 20 December 1996, on structural business statistics (OJ L 14 of 17.1.97, p.1), available at: <http://www.forum.europa.eu.int/irc/dsis/bmethods/info/data/new/legislation/sbs.html>

Table SBS1: Standard size class breakdowns

Activity	NACE	Size classes	NACE detail
INDUSTRY	Sections C, D & E	Number of persons employed broken down into the following groups: 1-9, 10-19, 20-49, 50-99, 100-249, 250-499, 500-999, 1000+	3-digit level
CONSTRUCTION	Section F	Number of persons employed broken down into the following groups: 1-9, 10-19, 20-49, 50-99, 100-249, 250-499, 500-999, 1000+	3-digit level
DISTRIBUTIVE TRADES	Section G	Number of persons employed broken down into the following groups: 1, 2-4, 5-9, 10-19, 20-49, 50-99, 100-249, 250-499, 500-999, 1000+	3-digit level
DISTRIBUTIVE TRADES	Section G	Annual turnover in EUR million broken down into the following groups: 0 to <1, 1 to < 2, 2 to <5, 5 to <10, 10 to <20, 20 to <50, 50 to <200, 200 and more	3-digit level
OTHER SERVICES	Sections H, I & K	Number of persons employed broken down into the following groups: 1-4, 5-9, 10-19, 20-49, 50-99, 100-249, 250-499, 500-999, 1000+	NACE aggregates as defined in the SBS Regulation for a limited number of indicators

Table SBS2: Main deviations from the standard statistical unit, as laid down in the SBS Regulation (an enterprise with one person employed or more)

	Population covered
INDUSTRY Hungary	Data for 1-9 persons employed refers to enterprises with 5-9 persons employed Data for all enterprises refers to enterprises with 5 persons employed and more Number of persons employed from the Business Register, other variables from other surveys; inconsistencies may be found
CONSTRUCTION Hungary	Data for 1-9 persons employed refers to enterprises with 5-9 persons employed Data for all enterprises refers to enterprises with 5 persons employed and more Number of persons employed from the Business Register, other variables from other surveys; inconsistencies may be found
DISTRIBUTIVE TRADES Hungary	Data for 1-9 persons employed refers to enterprises with 5-9 persons employed Data for all enterprises refers to enterprises with 5 persons employed and more Number of persons employed from the Business Register, other variables from other surveys; inconsistencies may be found
OTHER SERVICES Hungary	Data for 1-9 persons employed refers to enterprises with 5-9 persons employed Data for all enterprises refers to enterprises with 5 persons employed and more Number of persons employed from the Business Register, other variables from other surveys; inconsistencies may be found

as the business economy (excluding the activity of financial intermediation, Section J).

The data contained in the SBS database provides a number of important indicators for analysing the structure and activity of various economic sectors, of which the most important include the number of enterprises, value added, production value, turnover, employment, personnel costs and investment.

The National Statistical Institutes (NSIs) generally collect SBS data through statistical surveys, the business register or administrative sources. While the EU Member States have collected data from 1995 onwards, data on the candidate countries is generally available from 1998 onwards, although for a number of countries there is data also available for earlier reference years. However, not all candidate countries have transmitted data to Eurostat. In addition, some data sets are incomplete, in particular with respect to the statistical unit and the various size classes. For example, some candidate countries can only provide data for units with employment above a certain size threshold, while others may provide data for the total of all enterprises, but cannot provide data for all detailed size class breakdowns.

The collection of size class data is based on five different subsets of information according to the economic activity being studied (industry, construction, distributive trades and other services) and the type of size class (employment and turnover, the latter being used only for distributive trades). Table SBS1 shows the size class data requested by the Regulation and table SBS2 summarises the main deviations from this with respect to the data provided by the candidate countries.

LABOUR COSTS SURVEY (LCS)

Data on the structure and level of earnings and labour costs is collected within the legal framework of Council Regulation (EC) No 530/1999 of 9 March 1999 concerning structural statistics on earnings and on labour costs. This Regulation foresees the collection of data on the level and composition of labour costs for calendar year 2000 and at four-yearly intervals thereafter. It also foresees statistics on the structure and distribution of earnings for calendar year 2002 and for a representative month in that year, as well as at four-yearly intervals thereafter.

LCS data are available for 14 of the Member States (Belgium, not available), for Iceland and for Norway, as well as for 11 of the candidate countries (Malta and Turkey, not available). For most candidate countries, the 2000 survey was the first of this kind that they had carried out.

Countries provide a breakdown of total labour costs, with information available down to the 2-digit NACE Division level. There are a number of different size class thresholds, determined as a function of the number of employees for which data are requested, these may be summarised as: 10-49, 50-249, 250-499, 500-999, 1 000 or more employees.

For the 2000 survey, the Regulation requires that Member States cover economic activities in NACE Sections C to K; there were however a few exceptions to this (due to derogations), most notably, Germany (Sections I and K) and Ireland (Section H). As a result, totals for services (Sections G to K) and the business economy (Sections C to K) also exclude these activities in Germany and Ireland. In addition EU totals for Sections H, I and K and services (Sections G to K) and the business economy (Sections C to K) also exclude this German and Irish data. Some countries additionally provided data for Sections L to O, while others also provided data for micro enterprises (with less than 10 employees).

Some of the main indicators collected by the survey may be defined as follows:

Total annual labour cost: the sum of wages and salaries, employer's social contributions and other labour costs. More precisely, labour costs are equal to the sum of expenditure borne by employers in order to employ their staff. They include the compensation of employees with wages and salaries in cash and in kind, employers' social contributions, vocational training costs, taxes relating to employment, other expenditures (such as recruitment costs or working clothes provided by the employer), less any subsidies received.

Monthly labour costs per employee: annual labour costs divided by 12 and by the average number of employees during the year (converted into full-time equivalent units).

Hourly labour costs: annual labour costs divided by the number of hours worked during the year.

LABOUR FORCE SURVEY (LFS)

This is a household survey which provides data on population (persons living in private households), the working population and the non-national population. The main emphasis is on employment, unemployment and economic inactivity. A detailed presentation of the information provided by the survey is given in Regulation (EC) No 1575/2000, which lays down the rules for applying Council Regulation No 577/98 regarding the organisation of the Labour Force Sample Survey in the Community from the year 2001 onwards.

The LFS is based upon a sample of the population and the results are therefore subject to the usual types of errors associated with sampling techniques. Eurostat implements basic guidelines intended to avoid the publication of figures which are statistically unreliable; these guidelines are based upon the sample size and design of the survey in the various Member States and candidate countries. As such, there may be a large number of cells that are hidden for this purpose, especially when several dimensions of the data set are simultaneously crossed with each other and detailed information is provided.

CONTINUING VOCATIONAL TRAINING SURVEY (CVTS)

The second European survey of continuing vocational training (CVTS2) was conducted in 2000/2001 in all the Member States, Norway and 9 of the candidate countries. CVTS2 was the first survey of continuing vocational training conducted across enterprises in Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland (only the Pomorskie region), Romania and Slovenia. The survey provides comparable statistical results on training and non-training enterprises in relation to:

- the supply of, and the demand for, vocational skills;
- the need for CVT and the forms, content and volume of CVT;
- the use of enterprises' own training resources and of external providers;
- the cost of CVT courses.

The survey covers enterprises with 10 or more employees and was conducted for the economic activities in NACE Sections C to K and Section O. The reference year for all data is 1999. For the purposes of this survey, the term 'employees' excludes apprentices and trainees.

INNOVATION AND PATENT STATISTICS

Research and development statistics for the candidate countries and the Russian Federation are provided in Eurostat's reference database, NewCronos. Data include innovation statistics and patent applications. Innovation data, where available, are based on surveys that are similar to the Community Innovation Survey (CIS) and many candidate countries have recently made the step to undertake their first innovation surveys. Data collected cover a set of main indicators that are broken down according to the type of enterprise (the most basic split being between those enterprises with and without innovation activity, although further breakdowns are usually made by type of innovator). As such, derived indicators cover a range of topics, including, the number of enterprises with innovation activity, the turnover derived from new or improved products, the level of innovation expenditure and the use of various innovation activities within the enterprise, as well as qualitative data on topics, such as, sources of information used for innovation, hampering factors preventing or delaying innovation, or the main effects of innovation on the enterprise.

The patents database provides data concerning patent applications made to the European Patent Office (EPO), as well as patents granted by the United States Patent and Trademark Office (USPTO). Every year, the EPO carries out an extraction from their internal database and provides data broken down according to the International Patent Classification (IPC). Data on patent applications to the EPO at the national level are available for Member States, EFTA countries, candidate countries and the Russian Federation. Aggregates for the EU, the euro-zone, the EEA and the acceding countries are also available.

NATIONAL ACCOUNTS

The national accounts database supplies data on the main aggregates on a quarterly and an annual basis. National accounts are compiled in accordance with the European System of Accounts (ESA 1995) adopted in the form of a Council Regulation dated 25 June 1996, No 2223/96⁽²⁾. Figures are available in current and constant prices, they are expressed in national currency, in euros and in PPS, supplemented by respective growth rates and ratios. Deflators and price indices are also available, as well as information on population and labour input. Geographical coverage includes the EU, the euro-zone, the Member States, candidate countries, as well as the main economic partners of the European Union.

DEMOGRAPHY

The demography database gives detailed figures on population and covers a number of other main indicators. Information is collected on an annual basis from the EU Member States, EFTA countries and other European countries (notably, Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, the former Yugoslav Republic of Macedonia, the Federal Republic of Yugoslavia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia). Data are currently collected on the basis of a gentleman's agreement.

EXTERNAL TRADE

The external trade database provides information on the external trade flows from/to the candidate countries, as well as EFTA countries. The data are produced by national administrations according to national concepts. Some of these concepts may differ from standard EU definitions, which are applied to external trade statistics for the EU Member States, as published by Eurostat in the COMEXT database. The database on external trade contains each flow (import, export), for monthly and annual data and also contains growth rates, with a product breakdown.

⁽²⁾ The ESA 1995 Regulation (Regulation 2223/96 of the Council) may be referred to for more specific explanations on methodology and is published in the Official Journal L310 of 30 November 1996.

4.2 GLOSSARY, ABBREVIATIONS, SYMBOLS

GLOSSARY

Apparent labour productivity: value added at factor cost/number of persons employed (expressed in thousand EUR per person employed); care should be taken in the interpretation of this ratio between different activities and countries because of the use of a simple head count for the labour input measure, as a proxy for the volume of work done; values may exceptionally be negative.

Average personnel costs: personnel costs/number of employees (expressed in thousand EUR per employee).

Employees: are defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind; employees include part-time workers, seasonal workers, persons on strike or on short-term leave, but exclude those persons on long-term leave and voluntary workers.

Enterprise: an enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources; an enterprise carries out one or more activities at one or more locations; an enterprise may be a sole legal unit.

Number of persons employed (employment): is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams); it includes persons absent for a short period (e.g. sick leave, paid leave or special leave), and also those on strike, but not those absent for an indefinite period; it also includes part-time workers who are regarded as such under the laws of the country concerned and who are on the pay-roll, as well as seasonal workers, apprentices and home workers on the pay-roll.

Personnel costs: the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period; personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

Purchases of goods and services: include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods the consumption of which is registered as consumption of fixed capital. The goods and services concerned may be either resold with or without further transformation, completely used up in the production process or, finally, be stocked. Included in these purchases are the materials that enter directly into the goods produced (raw materials, intermediary products, components), plus non-capitalised small tools and equipment. Also included are the value of ancillary materials (lubricants, water, packaging, maintenance and repair materials, office materials) as well as energy products. Services paid for during the reference period are also included regardless of whether they are industrial or non-industrial. Also included are payments made for non-industrial services such as legal and accountancy fees, patents and licence fees (where they are not capitalised), insurance premiums, costs of meetings of shareholders and governing bodies, contributions to business and professional associations, postal, telephone, electronic communication, telegraph and fax charges, transport services for goods and personnel, advertising costs, commissions (where they are not included in wages and salaries), rents, bank charges (excluding interest payments) and all other business services provided by third parties.

4. METHODOLOGY AND SOURCES

Turnover: comprises the totals invoiced by the observation unit during the reference period, corresponding to market sales of goods or services supplied to third parties; turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover; it also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice; reductions in prices, rebates and discounts as well as the value of returned packing must be deducted.

Value added at factor cost: can be calculated from turnover, plus capitalised production, plus other operating income, plus or minus the changes in stocks, minus the purchases of goods and services, minus other taxes on products which are linked to turnover but not deductible, minus the duties and taxes linked to production; alternatively it can be calculated from gross operating surplus by adding personnel costs; income and expenditure classified as financial or extra-ordinary in company accounts is excluded from value added.

ABBREVIATIONS

COUNTRIES

EU	European Union
EU-15	Fifteen Member States of the European Union
BE	Belgium
DK	Denmark
DE	Germany
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	the Netherlands
AT	Austria
PT	Portugal
FI	Finland
SE	Sweden
UK	the United Kingdom

CEECs	Central and Eastern European Countries
ACC	Ten acceding countries (CZ, EE, CY, LV, LT, HU, MT, PL, SI and SK), who should join the European Union as of 1 May 2004
CC	Candidate countries (the acceding countries and BG, RO and TR)
CC-13	Total or average for the thirteen candidate countries
CZ	Czech Republic
EE	Estonia
CY	Cyprus
LV	Latvia
LT	Lithuania
HU	Hungary
MT	Malta
PL	Poland
SI	Slovenia
SK	Slovakia
BG	Bulgaria
RO	Romania
TR	Turkey

CURRENCIES

EUR	Euro
BEF	Belgian Franc
DKK	Danish Krone
DEM	German Mark
GRD	Greek Drachma
ESP	Spanish Peseta
FRF	French Franc
IEP	Irish Pound
ITL	Italian Lira
LUF	Luxembourg Franc
NLG	Dutch Guilder
ATS	Austrian Schilling
PTE	Portuguese Escudo
FIM	Finnish Markka
SEK	Swedish Krone
GBP	Pound Sterling
NOK	Norwegian Krone
JPY	Japanese Yen
USD	US Dollar
CZK	Czech Koruna
EEK	Estonian Kroon
CYP	Cyprus Pound
LVL	Latvian Lats
LTL	Lithuanian Litas
HUF	Hungarian Forint
MTL	Maltese Lira
PLN	New Polish Zloty
SIT	Slovenian Tolar
SKK	Slovak Koruna
BGN	New Bulgarian Lev
ROL	Romanian Leu
TRL	Turkish Lira

OTHER ABBREVIATIONS

CIS	Community Innovation Survey
CVT	Continuing Vocational Training
CVTS	Continuing Vocational Training Survey
Comecon	Council for Mutual Economic Co-operation
EFTA	European Free Trade Association
EPO	European Patent Office
ESA	European System of Accounts
ETF	European Technology Facility
GDP	Gross domestic product
IPC	International Patent Classification
ISCED	International Standard Classification of Education
LCS	Labour Costs Survey
LFS	Labour Force Survey
NACE	Statistical Classification of economic activities in the European Community
n.e.c.	not elsewhere classified
NSI	National Statistical Institute
OECD	Organisation for Economic Co-operation and Development
OJ	Official Journal (of the European Communities)
R&D	Research and Development
SBS	Structural Business Statistics
SITC	Standard International Trade Classification
SME	Small and medium-sized enterprises
UNESCO	United Nations Educational, Scientific and Cultural Organization
USPTO	United States Patent and Trademark Office

SYMBOLS

: not available

4. METHODOLOGY AND SOURCES

NACE REV. 1

The following is a reduced list of NACE Rev. 1 activity codes and headings. Only ones that are used in this publication have been detailed in the list.

NACE Sections

Section C to I and K	Business economy (composed of industry, construction and services, but not financial intermediation)*
Sections C to F	Industry and construction*
Sections C to E	Industry*
Sections G to K	Services*
Sections G to I and K	Services, excluding financial intermediation*
Section A	Agriculture, hunting and forestry
Section B	Fishing
Section C	Mining and quarrying (extractive industries)
Section D	Manufacturing
Section E	Electricity, gas and water supply
Section F	Construction
Section G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
Section H	Hotels and restaurants
Section I	Transport, storage and communication
Section J	Financial intermediation
Section K	Real estate, renting and business activities
Section L	Public administration and defence; compulsory social security
Section M	Education
Section N	Health and social work
Section O	Other community, social and personal service activities
Section P	Private households with employed persons

* These are not official NACE levels, but aggregates that are used in this publication.