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Member States competitiveness performance and policies

Accompanying document to the

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

An integrated Industrial Policy for the Globalisation Era
Putting Competitiveness and Sustainability at Front Stage

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1. INTRODUCTION

1.1. Background and Conceptual Framework

The Communication on the Europe 2020 Strategy[1], formally adopted by the European Council in June 2010, puts forward as a key priority for the Union the promotion of a more resource efficient, greener and *more competitive* economy. More specifically, the Strategy proposes seven flagship initiatives, four of which – "Innovation Union", "A Resource Efficient Europe", "An Industrial Policy for the Globalisation Era" and "An Agenda for New Skills and Jobs" – relate directly to industrial competitiveness.

The main objective of the present report is to analyse industrial competitiveness across the Union and to present the measures Member States carry out to improve their competitiveness and, by implication, the competitiveness of Europe as a whole. It aims to provide an information basis for a process of dissemination of best practice and policy advice regarding competitiveness in the context of Europe 2020. The report is factual in nature and is published as part of the Industrial Policy package. The key messages drawn from the report and proposals on a framework for annual Member State monitoring and for the exchange of best practice are presented in the Communication on the new Industrial Policy.

The report starts with a discussion of the analytical approach and some stylised facts. The following horizontal section gives an overview on progress by broad policy area: innovation, transition to a sustainable economy, business environment, and entrepreneurship policies. The third section consists of country chapters, which give a more detailed picture of the situation in individual Member States. A technical annex provides more detailed information on indicators, concepts and sources used.

The report is based on article 173 of the Treaty on the Functioning of the European Union (TFEU) which provides for regular monitoring of Member State actions. The economic and financial crisis forcefully demonstrated the interdependence of our economies, and the need for stronger economic policy coordination has been recognised by the Heads of State or Government. The Commission will use the full range of available instruments to strengthen policy coordination, and this across a wide range of existing Community policies.

Conceptual Approach: How competitiveness is understood in the present report

Article 173 TFEU stipulates that "[t]he Union and the Member States shall ensure that the conditions necessary for the competitiveness of the Union's industry exist." Article 173 further specifies a number of objectives concurring to this end, such as speeding up the adjustment of industry to structural changes, a favourable business environment, particularly for SMEs, and fostering better exploitation of the industrial potential of policies of innovation, research and technological development. The Commission is invited to take any useful initiative to promote coordination, in particular initiatives aiming at the establishment of guidelines and indicators, the organisation of exchange of best practice, and the preparation of the necessary elements for periodic monitoring and evaluation. Article 173 further specifies

[1] Communication from the Commission, Europe 2020 – A strategy for smart, sustainable, and inclusive growth, COM(2010) 2020 from 3 March 2010.

that the action by the Union and the Member States shall be undertaken in accordance with a system of open and competitive markets.

Article 173 TFEU acknowledges that industrial competitiveness is a multifaceted concept. As such, it touches for instance upon the ability to adjust to structural changes or on the framework conditions for innovation. This suggests already that a single indicator does not suffice to measure competitiveness in a comprehensive and operational manner, but that the various dimensions of competitiveness alluded to in Article 173 have to be captured by separate and distinctive means. This is the approach which the present report has adopted. However, to allow for the identification of a suitable set of competitiveness measures and indicators, the notion of competitiveness has to be further clarified.

For this purpose, competitiveness has to be understood in a way, which remains economically meaningful for that a sector of activity and which is closely related to the policies designed to improve its performance. In other words, competitiveness so conceived should be responsive to policy action with a view to guide the design of policies and to allow their ex-post evaluation. Accordingly, a *macroeconomic* approach focusing as it does on output-variables such as GDP growth may be *too broad* and hence may provide little added value if the performance of, and policies for, a specific sector such as industry are to be assessed. Moreover, the financial and economic crisis has shown that high growth rates can, at least temporarily, go hand in hand with decreasing shares on foreign markets and increasing external deficits. Hence, from this perspective too, GDP growth is poorly suited to serve as a proxy for competitiveness.

At the same time, there are reasons to suggest that a sub-sector-based *microeconomic* notion of competitiveness such as Revealed Comparative Advantage (defined as a measure of the share of a given industry's exports relative to the average exports in the rest of the world) is in turn *too narrow* since, by construction, RCA cannot be applied to industry as a whole. Therefore, RCA cannot capture, in particular in the context of EMU, the underlying determinants of sector-wide competitiveness concerns and, ultimately, economy-wide imbalances. Such determinants may for instance result from the institutional set-up and the functioning of the labour market. They are then likely to affect a sector horizontally without being rooted in that sector and thus without being in the purview of traditional industrial policy for that matter. In addition, the concept cannot be applied for industry as a whole because an improvement for one industrial sub-sector must be mirrored by a deterioration for another sub-sector. That is, if the (relative) share of sub-sector *i* increases then the (relative) share of at least one sub-sector has to decline to compensate for the increase. Note moreover that export-shares are also influenced by, for instance, exchange rate-misalignments. RCA may therefore give a distorted picture of an industry's competitive position.

In a globalised economic setting where markets often span over continents and where the division of labour has reached unprecedented levels, Europe's future welfare and growth depend crucially on its capacity to compete successfully on these markets and on its aptness to participate profitably in the international division of labour. On this background, then, Europe's industrial competitiveness will be understood in the present report more concretely as the ability of its industrial sector to maintain and strengthen its competitive position in the world market relative to that of other countries, focusing on price and cost developments of production and other parameters potentially affecting the growth performance, market shares, and investment and location decisions of firms in the industrial sector.

Obviously, it is essential for Europe to draw on its strengths and to build on the advantages which are at the root of the current pattern of industrial specialisation and which have helped Europe to erect its impressive industrial base. Therefore, these have to be captured appropriately. Yet it is equally important to recognise that comparative advantages do not only stem from different factor endowments as in traditional trade theory. They follow from a variety of sources, many of which can be summarised under the heading of framework conditions and many of which are novel in the sense that they are motivated by, and conditioned upon, the economic and environmental challenges Europe is currently facing.

No less significant is the removal of bottlenecks to broad-based innovation and entrepreneurship. Innovation is crucial in order to create high added value and spearhead the development of new markets. Yet Europe often failed in the past to turn excellent ideas into marketable products and thus create new markets. This suggest the need to have a comprehensive approach to innovation which covers all steps from the first inspiration to the final product, from knowledge foundations and breakthrough ideas to access to finance and the creation of a single innovation market.

Last but not least, the transition towards a low carbon and resource efficient economy is crucial for raising Europe's competitiveness, as increasingly scarce resources present greater risks of political and economic shocks to their supply. It is significant challenge for the EU economy and, in particular, industrial sectors which, for technological reasons, will remain energy intensive.

Another clarification regards the notion of industry used throughout this report. While the primary focus is on manufacturing as a main engine for productivity growth and innovation, the framework conditions that determine its competitiveness also apply to the service sector, which grows faster and provides the overwhelming majority of jobs and incomes in modern economies. Moreover, the competitiveness of business services is an important determinant of the competitiveness of the industry. Subsequently, the presentation of policy measures and the discussion on challenges that follow cover in fact the whole of the (private) enterprise sector.

The report reviews the competitive position of the Member States' industry based on statistics (external performance and specialisation) and a graphic presentation of a common set of indicators. In the light of the foregoing considerations, two considerations have inspired the final selection of indicators.

First, macroeconomic variables such as unit labour costs or the real effective exchange rate have to be included in order to put industrial competitiveness developments into perspective. Although these variables are not within the purview of traditional industrial policy, they are crucial for determining price competitiveness and hence the degrees to which comparative advantages are translated into lower prices for specific goods. Moreover, unit labour costs are in the absence of exchange rates a key reason for prices differences within EMU and thus can contribute to the emergence of imbalances.

Second, indicators should give a comprehensive picture of the determinants of price and non-price competitiveness and of the policies that try to foster them. That is why indicators have been selected with a view to shed light on important features of the business environment and the framework conditions under which European enterprises operate. In addition to the set of indicators, the present report will draw on both qualitative and quantitative information from various sources within and without the Commission. Key among these are the *European Innovation Scoreboard*, the *National Energy Efficiency Action Plans (NEEAPs),* the *SBA Fact*

Sheets and the MICREF data base which has been developed in order to monitor reform policies in Member States[2].

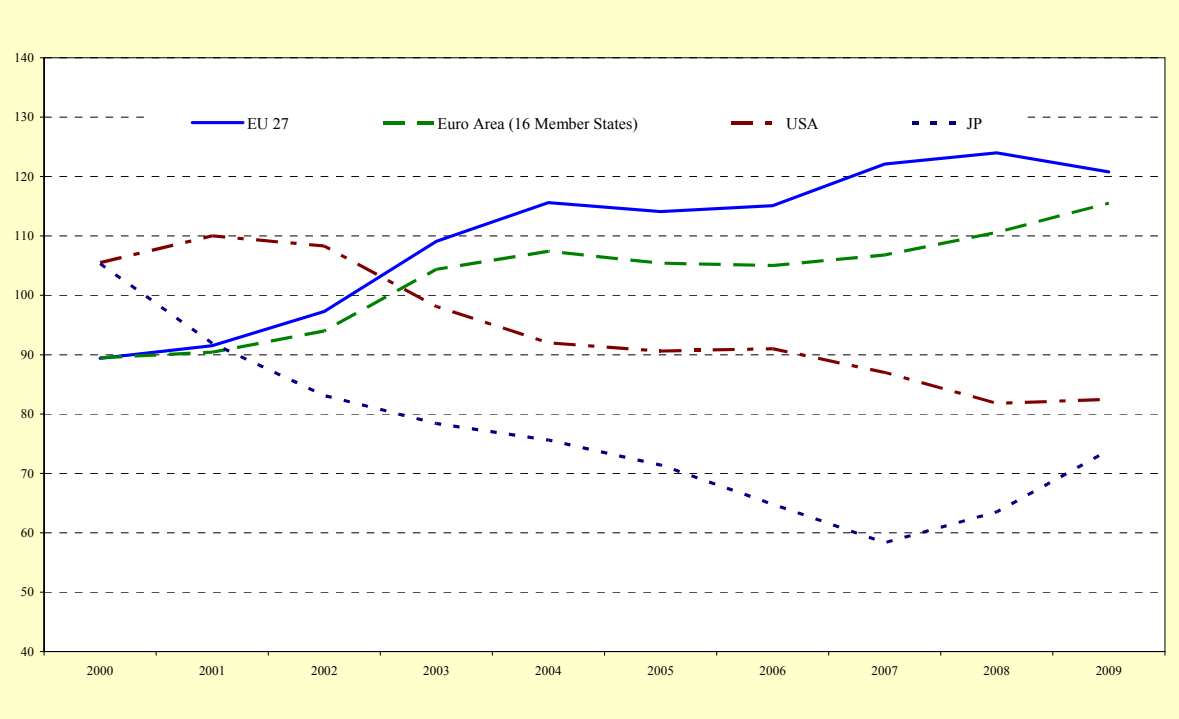
The natural starting point for assessing competitiveness performance and policies is to look at what other Member States are doing and how well they perform – either as a group or individually. That is why this report will mostly use the EU27 average as a first benchmark. Evidently, however, the global challenges and the tasks Europe is confronted with cannot be met successfully if Europe does not aspire to more than improving the performance of those countries that are trailing behind. Hence, where data allows, Europe should compare itself with those countries that are world leaders no matter whether they are located within or outside the Union.

1.2. Key trends regarding macroeconomic variables related to competitiveness

The development of some key macroeconomic variables at EU level, also in relation to trends in other industrialised countries, is instructive for putting Europe's industrial competitiveness into perspective. The real effective exchange rate of the EU (REER) (Graph I) appreciated by about 25 percentage points between 2000 and 2005 while appreciating much slower thereafter and even depreciating slightly in 2009. Overall, this implies a net deterioration of EU's price competitiveness against its main trading partners. To some extent, a mirror image of this development is the depreciation of the REER of both the US and Japan during the same decade. Thus, both countries have gained in price competitiveness, not least vis-à-vis Europe. Switzerland's REER by contrast has only shown a slight upward trend implying that its price competitiveness has not deteriorated significantly.

[2] For a detailed presentation of main sources please refer to the Technical Annex of this report.

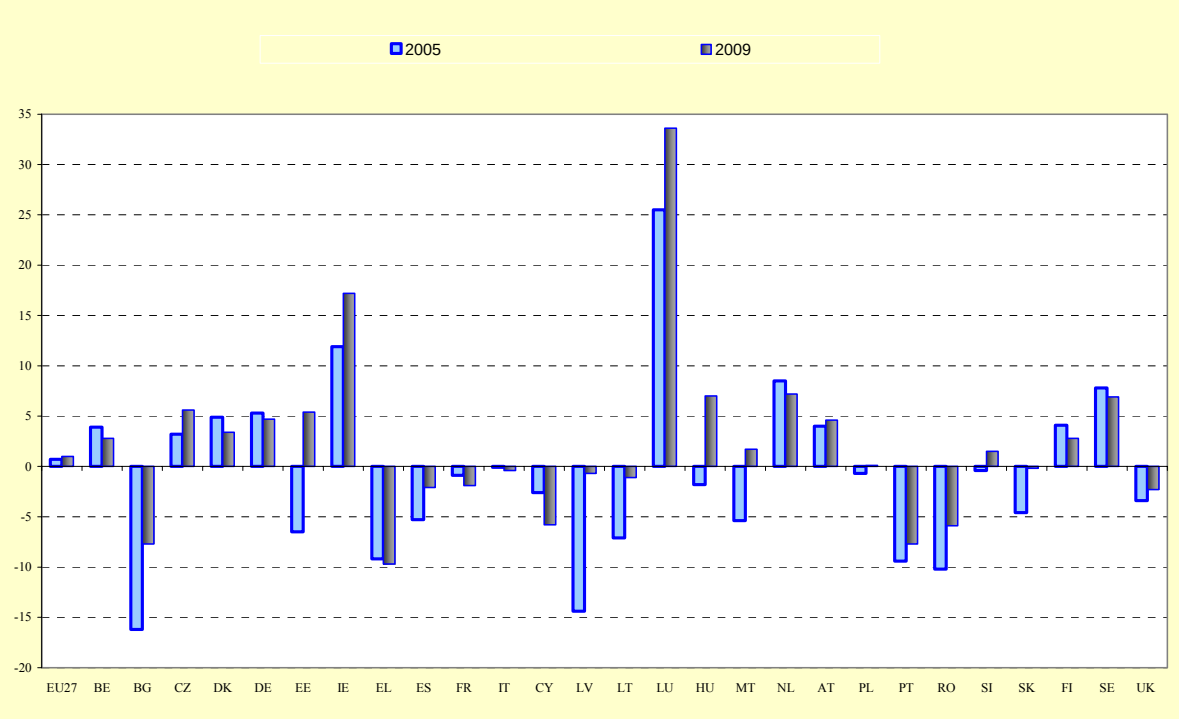
Graph I: Real effective exchanges rates deflated by nominal unit labour costs (total economy) against a panel of 36 countries (1999=100)



Source: European Commission, Directorate-General for Economic and Financial Affaires, 2010

Despite the appreciation of EU's REER, overall trade performance, as measured by the trade balance, has remained virtually unchanged since 2005 (Graph II). This is in stark contrast to the considerable US deficit and the sizable surplus of China and suggests that the EU has been able to compensate for the appreciation of its REER by relying increasingly on elements of non-price competitiveness.

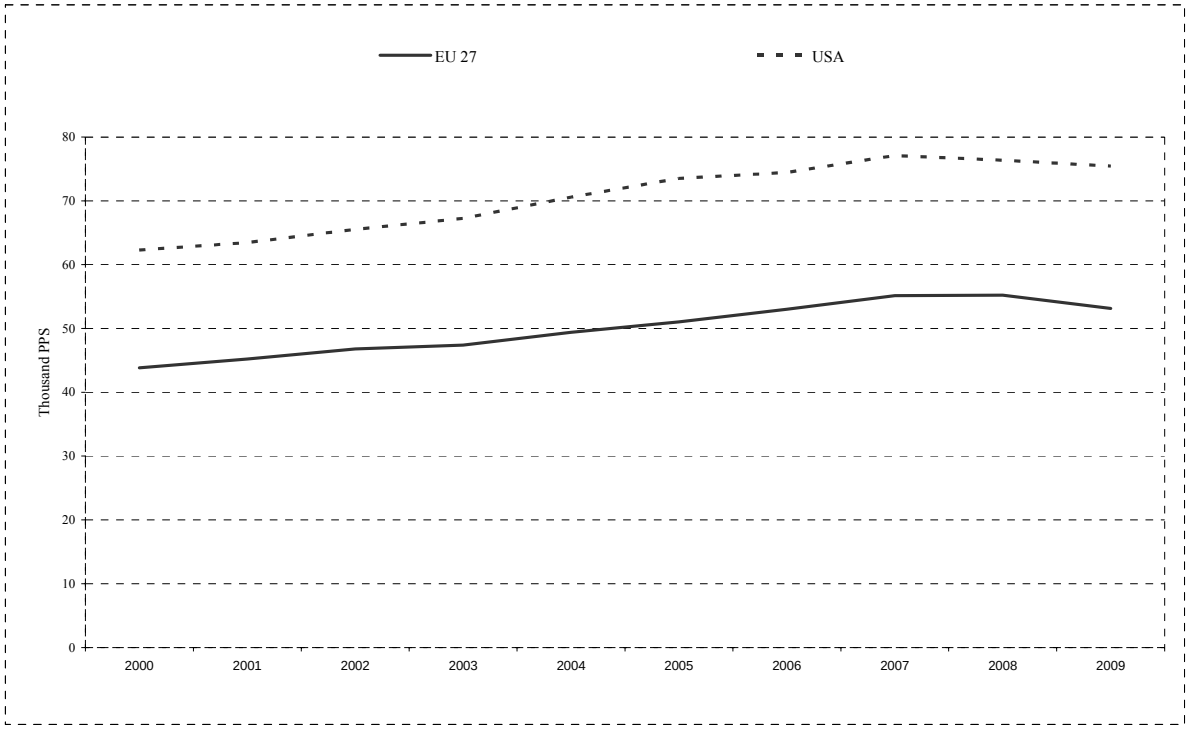
Graph II: Trade balance of goods and services as a % of GDP



Source: Eurostat, 2009

While the real effective exchange rate (REER) is influenced by a number of factors such as exogenous exchange rate movements, which are by and large beyond the purview of economic policy, it is the combination into a single indicator of labour cost and productivity, which is commonly seen as an important target of economic policy making. Via its impact on unit labour costs, labour productivity influences international price competitiveness. Over the last decade, European labour productivity has increased steadily up until 2007/2008 when the economic crisis led even to an absolute decline (Graph III), most likely due to labour hoarding in the wake of mounting overcapacities during the financial crisis. However, the initial increase did not suffice to close the gap with the US, which remains the benchmark in this respect.

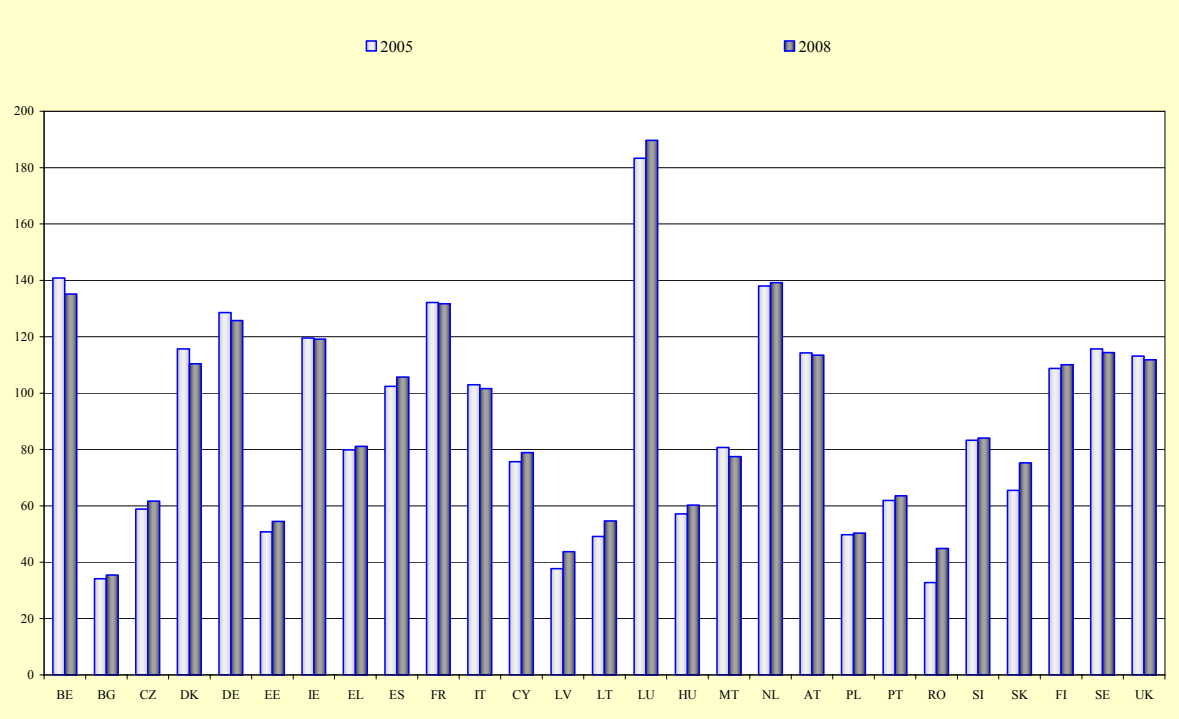
Graph III: Labour productivity per person employed in Purchasing Power Standards (PPS)



Source: Eurostat, 2010

However, these observations should not be taken to suggest that Europe's macroeconomic landscape is flat and that macroeconomic developments within the European Union do not raise significant issues. Regarding labour productivity per hour worked (Graph IV), there are still huge differences between Member States, ranging from less than 40% of the EU27 average to almost 140% of the EU average in Belgium and the Netherlands and even more than 180% of the EU average in Luxembourg. However, as Graph IV illustrates labour productivity has improved measurably in virtually all the new Member States also relative to the EU average, which is bound to increase, while labour productivity in many old Member States has declined relative to the EU average. This means that the productivity gap between old and new Member States is closing, albeit not across the board.

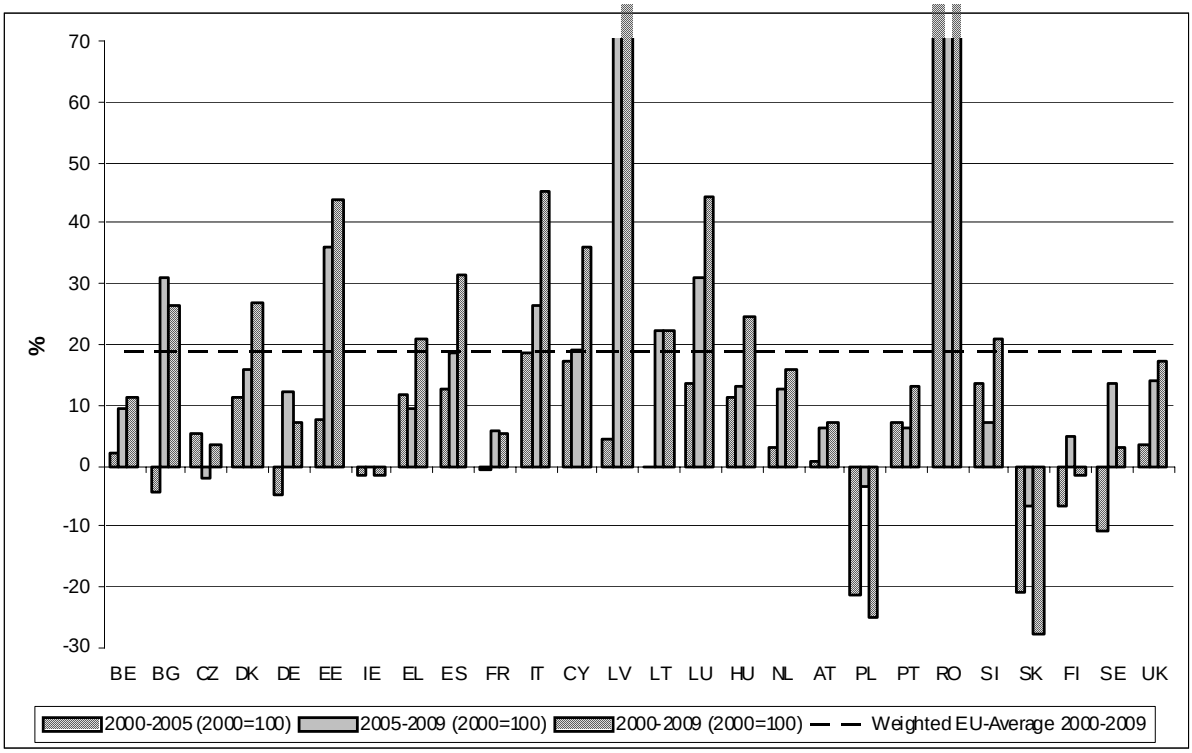
Graph IV: Labour productivity per hour worked (EU27=100)



Source: Eurostat, 2010
Note: The second columns for Bulgaria and France relate to 2007 (not to 2008).

In particular in the context of the Economic and Monetary Union and in the absence of flexible exchange rates between Member States, nominal unit labour costs impact prices and thus price competitiveness. Significantly diverging nominal unit labour costs may therefore contribute to macroeconomic imbalances. Nominal unit labour costs in manufacturing are of particular relevance in this context (Graph V) since manufactured goods are mostly tradables while many services are not.

Graph V: Change in Nominal Unit Labour Costs in Manufacturing



Source: European Commission (2000-2005) and OECD (2005-2009)

Graph V indicates that nominal unit labour cost trends diverged significantly across the Member States during the last decade, both within and outside the euro zone. While the highest increases could be observed in several new Member States, nominal unit labour cost growth went also markedly beyond the weighted EU average (which is slightly below the ECB inflation target of 2% p.a.) in some of the old Member States. By contrast, nominal unit labour costs grew at rates significantly below the EU average in Germany, France, Ireland, Sweden, Austria Finland and the Czech Republic and even substantially decreased in some of the new Member States (Poland, Slovakia). These countries therefore experienced an improvement of their price competitiveness. Although the analysis does not hold across the board, some of the trade surpluses and deficits depicted in Graph II can therefore be attributed to diverging nominal unit labour costs and their impact on price competitiveness. Moreover, unit labour costs in the EU as a whole increased by almost 20 % over the last decade, thereby contributing also to an appreciation of Europe's REER.

2. OVERVIEW OF PROGRESS BY BROAD POLICY AREA

Reform profiles of individual Member States (calculated as share of reforms in a specific policy area) differed considerably during the last five years (Table I)[3]. In most Member

[3] Table I and graph VI are based on data from MICREF, a data-base that the Commission has developed to provide a systematic record of the actual implementation of

States, reforms aimed predominantly at improving the business environment and at fostering R&D and innovation. The only exception was Greece where reforms in sector specific regulation took prominence with more than 30% of all reforms.

Table I: Reform Profiles by Country (date of adoption 2005-2009)

	Improving the (small) business environment	Start-up conditions	R&D and Innovation	Education	Competition policy	Market integration	Sector specific regulation
AT	40%	2%	34%	4%	8%	10%	2%
BE	31%	8%	40%	6%	3%	0%	13%
BG	42%	3%	24%	24%	3%	0%	3%
CY	22%	6%	34%	20%	4%	8%	6%
CZ	25%	14%	35%	16%	0%	2%	8%
DE	43%	10%	18%	4%	4%	5%	15%
DK	6%	6%	36%	17%	2%	11%	21%
EE	16%	14%	30%	32%	3%	0%	5%
EL	23%	5%	15%	15%	5%	5%	31%
ES	34%	10%	23%	14%	3%	3%	14%
FI	31%	8%	42%	12%	0%	6%	2%
FR	42%	19%	11%	13%	3%	0%	13%
HU	28%	7%	29%	13%	1%	5%	16%
IE	26%	6%	27%	5%	5%	11%	19%
IT	26%	8%	33%	6%	3%	7%	18%
LT	30%	3%	33%	30%	0%	5%	0%
LU	24%	7%	45%	7%	0%	10%	7%
LV	19%	11%	40%	13%	4%	4%	9%
MT	22%	4%	27%	22%	4%	0%	22%
NL	15%	6%	60%	10%	2%	2%	6%
PL	46%	9%	18%	0%	2%	3%	22%
PT	15%	5%	30%	28%	3%	3%	15%
RO	29%	6%	25%	10%	8%	0%	23%
SE	33%	2%	31%	13%	4%	9%	9%
SI	27%	7%	23%	11%	1%	4%	27%
SK	34%	7%	29%	17%	2%	2%	7%
UK	61%	10%	14%	12%	0%	0%	3%
Average	29%	7%	30%	14%	3%	4%	12%

Source: MICREF

On average (calculated as the unweighted average of the percentage shares), almost 60% of Member States' reforms aimed at improving the business environment and at fostering R&D and innovation. Sector specific regulation and education came next with 12% and 13% respectively. Reform profiles did not differ significantly between "old" and "new" Member States.

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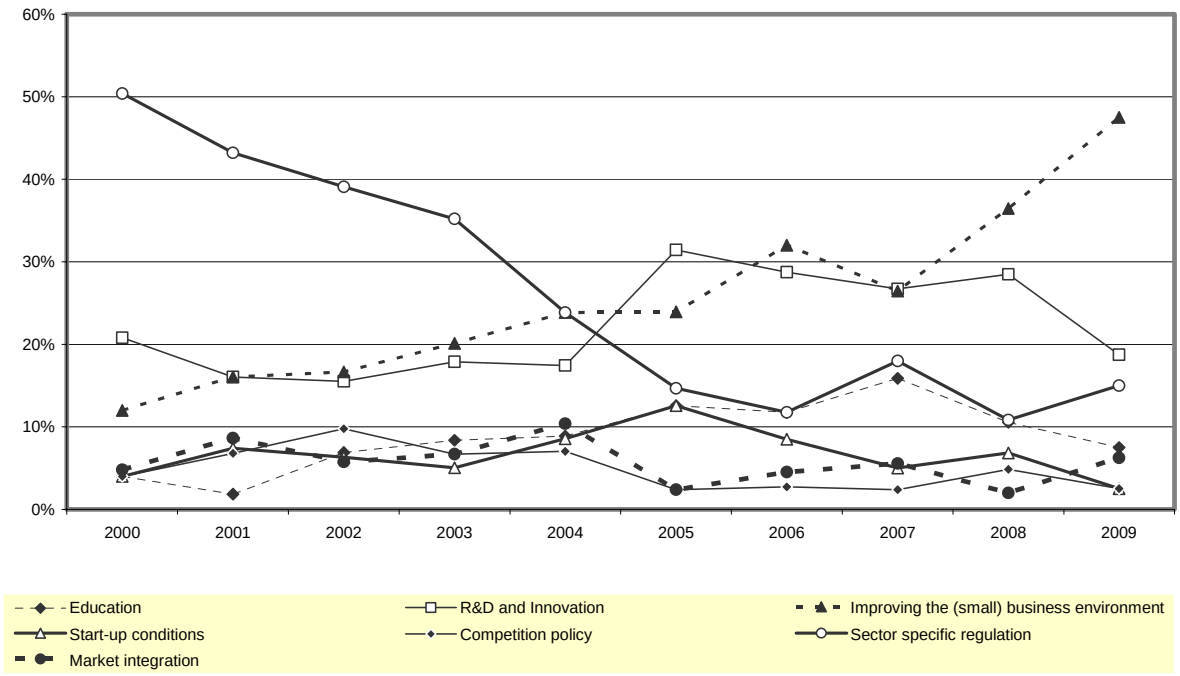
microeconomic reform measures in the EU. MICREF covers microeconomic reform measures in the 27 EU Member States which were implemented between 2004 and 2009 (EU15: 2000-2009). The database also provides information on the design and scope of reforms undertaken.

The evolution of reforms over time in the EU shows several interesting aspects (Graph VI). First, the share of reforms addressing sector specific regulation decreased considerably during the first half of the last decade from an initial share of 50% to roughly 15%. This clearly reflects the results of market opening initiatives. By contrast, the share of reforms that aim at improving the business environment has increased trendwise from slightly above 10% in 2000 to almost 50% in 2010. The share of R&D increased in the mid 2000s and then remained at a somewhat higher level for several years. For the remaining policy areas, reform shares have not changed much over time.

Graph VI: Reform profile over time (date of adoption of the measure)



Source: MICREF

2.1. Towards an innovative industry

The main instrument for measuring Member States' innovation performance, the European Innovation Scoreboard (EIS) 2009, includes innovation indicators and trend analyses for the EU Member States. On this base, four groups of countries emerge: Innovation Leaders, Innovation Followers, Moderate Innovators, and Catching-up Countries.

Denmark, Finland, Germany, Sweden and the UK are the Innovation Leaders, with innovation performance well above the EU27 average. Of these countries, Germany and Finland are improving their performance fastest while Denmark and the UK show less progress.

Austria, Belgium, Cyprus, Estonia, France, Ireland, Luxembourg, the Netherlands and Slovenia are the Innovation Followers, with innovation performance below those of the Innovation leaders but close to or above that of the EU27 average. Cyprus, Estonia and Slovenia have shown a strong improvement compared to 2008, providing an explanation why

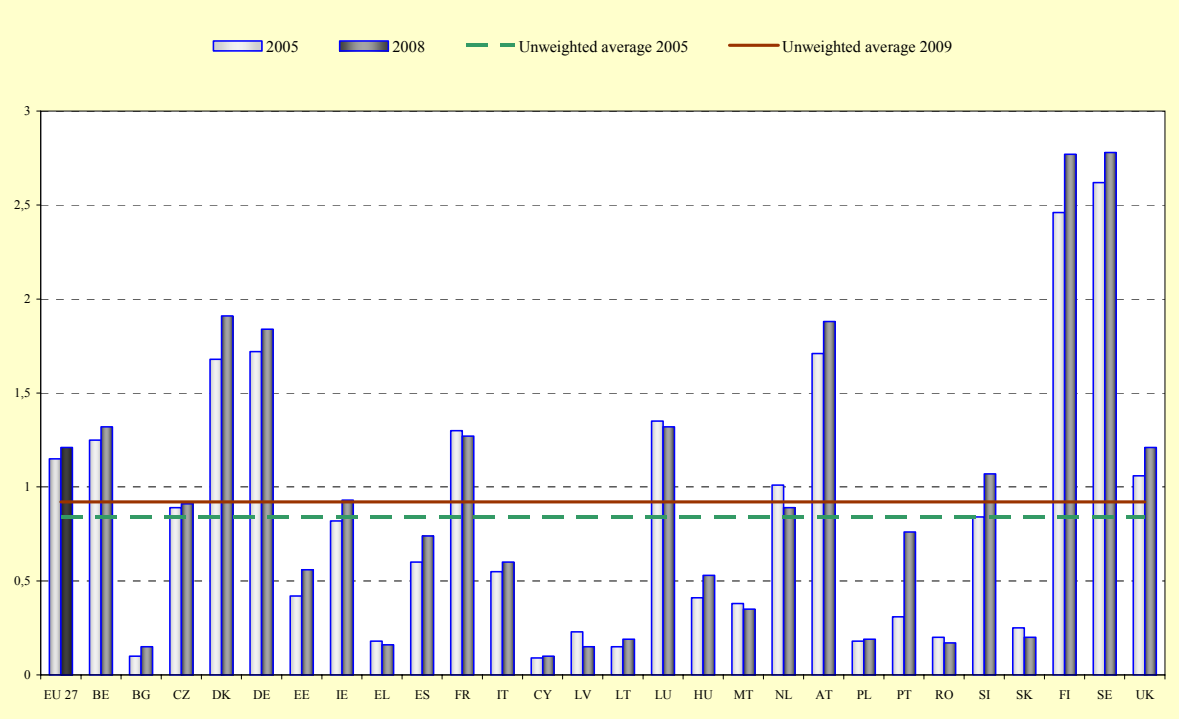
these countries have moved from the Moderate Innovators in the EIS 2008 to the Innovation Followers.

Czech Republic, Greece, Hungary, Italy, Lithuania, Malta, Poland, Portugal, Slovakia and Spain are the Moderate Innovators, with innovation performance below the EU27 average. The EIS 2009 Moderate innovators are a mix of five Member States which were Moderate innovators in the EIS 2008 and five Member States which were Catching-up Countries in the EIS 2008.

Bulgaria, Latvia and Romania are the Catching-up Countries with innovation performance well below the EU27 average. All three countries are rapidly closing their gap to the average performance level of the EU27, and Bulgaria and Romania have been improving their performance the fastest of all Member States.

The economic and financial crisis led companies and entire sectors to face declining demand both in domestic and global markets. R&D spending by businesses had increased in almost all Member States in the period preceding the crisis (Graph VII). The most common effects of the crisis was the severe decline in economic activity further aggravated by difficulties in access to external private finance in almost all the sectors across Europe. Financing of R&D and innovation activities has hence become more difficult. Preliminary evidence does not seem to suggest a massive decline of innovation expenditure s a result of the crisis. In some cases virtually no crisis impact has been noted (e.g. Finnish ICT sector or biotechnology and pharmaceuticals in Hungary and Ireland). However, firms' investment in R&D generally displays a lag with respect to the business cycle and therefore a further decline in business R&D cannot be excluded.

Graph VII: Business R&D expenditure (% of GDP)



Source: Eurostat, 2010

Member States reacted to the challenge of preventing a decline in private R&D and innovation expenditure in various ways, spanning from a forward-looking and proactive approach to a short-term defensive approach. The European Innovation Progress Report 2009[4] identified four types of Member States' anti-crisis responses in terms of type and speed.

Finland, Germany, Luxembourg and the Netherlands form the group of proactive and forward-looking countries. Their crisis response comprised not only the present access to finance challenge but also potential or future challenges across various areas (e.g. eco-innovation).

Adequate and timely responses were recorded in Belgium, Cyprus, the Czech Republic, Denmark, France, Ireland, Italy, Malta, Poland, Spain, Sweden and the UK. These Member States implemented crisis measures in a timely manner albeit less focused on innovation than the first group of countries.

4 It should be kept in mind that the conclusions of The European Innovation Progress Report 2009 are drawn from country reports covering a limited time period (mid-2008 to mid-2009) and that it is certainly too early to draw any definite conclusions about effectiveness and efficiency of the introduced policy measures, or estimations about innovation performance following the crisis.

The reaction of the third Member State group was defensive and often delayed. The anti-crisis interventions in Austria, Bulgaria, Estonia, Greece, Hungary, Portugal and Slovakia contained only a few additional innovation-specific initiatives or reinforcements of existing instruments.

The remaining Member States Latvia, Lithuania, Romania and Slovenia did not introduce innovation-specific measures to mitigate the effects of the crisis on R&D and innovation spending.

According to the preliminary conclusions of the European Innovation Progress Report 2009, it is not surprising that Member States which are classified as Innovation Leaders and Followers have in general reacted in a proactive or timely manner to the challenges of the effects of the economic and financial crisis in the innovation field. In contrast, Moderate Innovators and Catching-up Countries largely reacted defensively or even failed to address innovation problems resulting of the crisis. The way in which Member States reacted may induce a reopening of the funding gap between the Innovation Leaders and the Catching-up Countries that has recently narrowed to some extent.

Access to finance and funding of innovation is, however, only one element of a successful innovation policy. The European Innovation Progress report concludes, based on a decade of monitoring of innovation policies across Europe that sustained good innovation performance is based also on a good governance structure. Good governance includes certain common elements of a policy cycle including coordination, priority setting, stakeholder involvement and evaluation. Most Member States demonstrate increasing efforts to follow such principles; changes are however slow and evolutionary due to path dependency.

The current financial crisis is likely to be only a prologue of a need for greater policy innovation with climate change, finite natural resources, demographic change or globalisation as much larger societal challenges ahead.

2.2. Towards a sustainable industry

The policy response of the majority of Member States in making their industries more sustainable is generally framed by two main instruments: the National Energy Efficiency Action Plan (NEEAP)[5] and some sort of a broader sustainable development strategy to turn the challenges related to climate change and degradation of environmental assets into business opportunities. Almost all Member States have introduced energy savings targets of 9% for 2016 as part of their NEEAPs, whilst some have committed to higher ones. For a number of Member States, the NEEAPs form part of their strategy to reach the 20% reduction in primary energy demand by 2020, including Austria, Ireland and Sweden.

The NEEAPs of Hungary, Malta and the Slovak Republic place a strong focus on energy efficiency in industry, and expect the highest share of savings to come from industry measures. A number of NEEAPs introduce subsidised energy audit schemes in the industrial

[5] Member States are required to submit the National Energy Efficiency Action Plans in accordance with Article 14(2) of the Directive 2006/32/EC on energy end-use efficiency and energy services. The NEEAP is the EU-wide instrument to improve energy efficiency in sectors outside the EU Emissions Trading Scheme while the national allocation plans (NAPs) promote resource efficiency and climate change mitigation within the heavy industry of Member States.

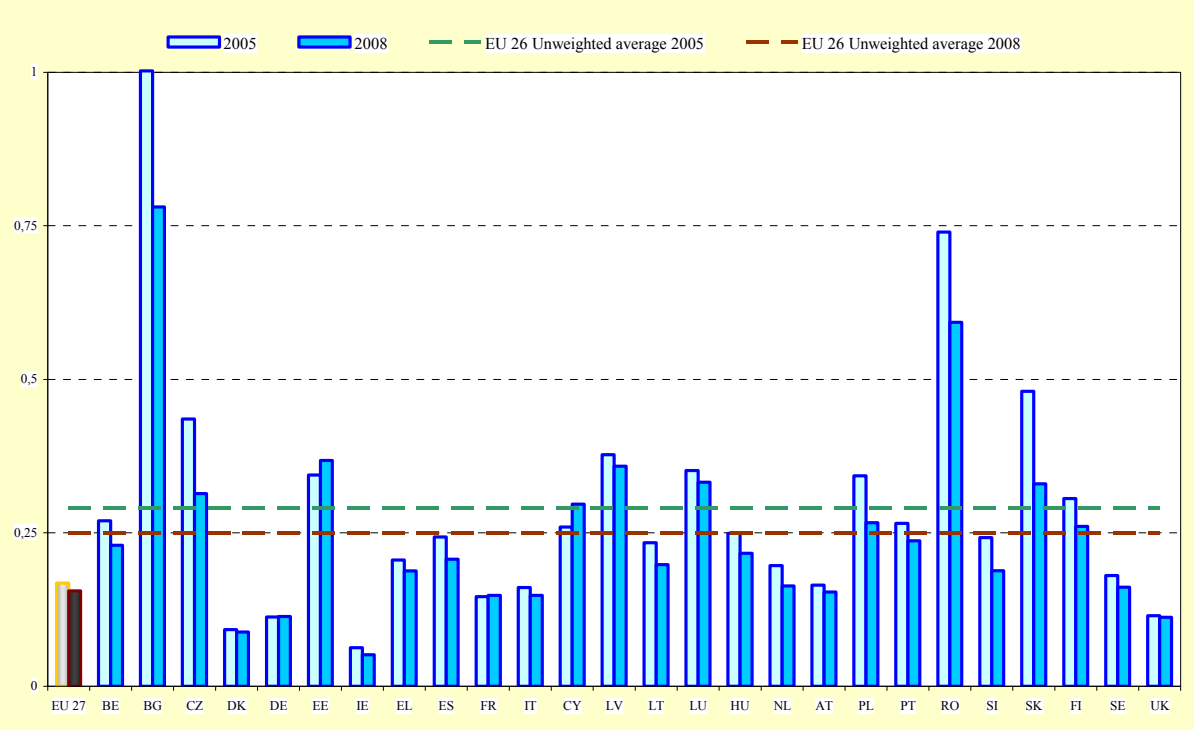
sector, including Bulgaria, the region of Flanders (audit covenant scheme), Finland, Germany (SMEs), Portugal (mandatory audits for large users) and Slovakia (SMEs). In the Czech Republic, mandatory audits combined with support for the preparation of projects that lead to energy services are an example of a well-integrated initiative in the industrial sector. Mandatory energy audits are also featured in Portugal where they are related to a plan for rational use of energy where biannual implementation and progress reports are required.

Voluntary agreements (VAs) with industries are a key policy instrument used in Denmark, Finland, Greece, the Netherlands, Portugal, Slovenia, Sweden, and the UK. Both Finland and the Netherlands have a long tradition of using VAs, gradually extending their coverage. Some Member States envisage making use of energy management measures and standards, as well as energy reporting and benchmarking in industry (e.g. Ireland, Denmark, Greece and Hungary).

The UK combines voluntary agreements (Vas) and tax breaks in its Climate Change Agreements (CCAs) introduced as part of the Climate Change Levy package. Similarly, Slovenia grants exemptions from its CO_2 tax to industrial installations that enter into VAs to reduce their total annual emissions. Portugal provides tax incentives and audit subsidies for industrial operators under VAs. The UK has also notified a so-called Carbon Reduction Commitment – a mandatory emission trading scheme for the large non-energy intensive sectors, covering both the private and the public sector. France has introduced an innovative system of state-issued carbon credits to encourage the reduction of greenhouse gas emissions, particularly through reducing the domestic use of fossil fuels. Any project in the non-ETS sectors that saves carbon compared with a reference baseline may benefit from credit system.

In most Member States, energy intensity in industry had decreased before the crisis (Graph VIII). More recently, almost all Member States implemented measures to enhance energy efficiency also as part of their anti-crisis plans. In most cases, the anti-crisis measures aimed at improving the energy efficiency of buildings (private, business or public), with their main aim was to support the construction sector rather than improve the general energy performance of industry. Some of these programmes were particularly successful. For example, it was estimated that the funding of €100 million through low-interest loans in Austria led to a seven-fold increase in total investment and to a reduction of 5.3 million tons of CO_2 emissions. Other initiatives comprised acceleration of EU-funded projects to increase energy efficiency (e.g. Estonia) and installation of intelligent metering (e.g. Portugal).

Graph VIII: Energy intensity in industry in kg of oil equivalent per euro of gross value-added at constant prices



Source: Eurostat, 2009

Many Member States aimed specifically at the development of renewable energy sources, mainly solar (e.g. Italy, Malta and Portugal), wind (e.g. Denmark, Estonia, Finland, Hungary and the UK) or biomass (Slovakia). Practically all the Member States have recently increased public investments in infrastructure, also often in the context of the greening the economy. For example, Denmark frontloaded 5% of its long-term Green Transport Infrastructure Investment Plan (2009-2020).

Most recovery plans included measures to encourage eco-innovation, e.g. to promote fuel efficiency or electrical and hybrid cars via the specific design of temporary car scrapping schemes. Finally, more than half of the Member States have come forward with new fiscal instruments, including taxes on environmentally harmful activities and fiscal incentives for "green" behaviour. At the same time, very few Member States have promoted "green" public procurement.

Decreasing further the energy intensity of industry, as well as increasing the share of renewable energy sources and ensuring their successful integration into the existing energy systems remain the two principal challenges facing the EU. Many measures outlined in the NEEAPs are still awaiting implementation, with their latest status to be reported in the second generation of the NEEAPs expected by 30 June 2011. The new NEEAPs are also expected to set out plans for further steps in increasing energy efficiency. According to a study on the

competitiveness of the EU eco-industry[6], the EU12 are lagging behind the EU15 in terms of development of the various subsectors of the eco-industry. However, the EU12 market is expected to develop strongly and provide many investment opportunities. As the consequence, the availability of financing for investment in industrial sustainability is getting more important.

2.3. The business environment

2.3.1. Introduction

Despite progress made over the last decade, companies that operate in the EU still perceive weaknesses in the business environment, such as fragmentation of the internal market[7], unnecessarily high administrative burdens and burdensome procedures for dealing with public administrations. Such weaknesses can lead to unnecessarily high costs to businesses or even inhibit business activity. They also reduce the attractiveness of the EU as a location for international investment.

Existing studies[8] point to large differences among the Member States in terms of the quality of the business environment and the modernisation of public administrations. The cross-country differences suggest that there is scope for further improvements in many areas.

The Europe 2020 strategy contains two flagship initiatives which directly concern the business environment: "An Industrial Policy for the Globalisation Era" and "An Agenda for New Skills and Jobs". The latter draws attention to the fact that the availability of a well-educated and well-skilled workforce is an essential element of a favourable business environment. Both initiatives foresee actions at the EU level, but also increased efforts at the national level to promote a good business environment. For the business environment the new Broad Economic Policy Guidelines[9], this guideline foresees that Member States should ensure that markets work for businesses, put in place predictable framework conditions and ensure well-functioning, open and competitive markets for goods and services. In particular, Member States should develop the necessary physical infrastructure, also with a view of reducing regional disparities, modernize public administrations, eliminate unnecessary administrative burdens and avoid unnecessary new burdens by applying smart regulation instruments, including by developing further inter-operable e-government services, support small and medium-sized enterprises (SMEs), improving their access to the Single Market in line with the 'Small Business Act for Europe' and the 'Think Small First' principle, remove remaining barriers to the internal market, facilitate access to finance, and support the internationalisation

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6 Study on the Competitiveness of the EU eco-industry, ECORYS, October 9, 2009.

7 Commission Communication on a Single Market Act COM(2010) 608.

8 European Commission, e.g. SEC(2010) 114 – http://ec.europa.eu/archives/growthandjobs_2009/pdf/lisbon_strategy_evaluation_en.pdf of 2.2.2010 COM(2009) 680 – http://ec.europa.eu/enterprise/policies/sme/small-business-act/implementation/files/sba_imp_en.pdf
World Bank, Doing Business - http://www.doingbusiness.org
OECD, Better Regulation in Europe - The EU 15 project

9 http://register.consilium.europa.eu/pdf/en/10/st11/st11646.en10.pdf

of SMEs. A further reference point for Member States' action on the business environment is the Small Business Act for Europe (SBA)[10], which is discussed below.

2.3.2. Overview of the situation and of policy measures in Member States 2009/2010

Infrastructure

The quality and availability of infrastructure varies significantly across the EU, and major new investments are still needed in particular in the Southern and Eastern Member States. Maintenance projects need to be financed also in the current front-runner countries. Moreover, energy grids with neighbouring countries could be reinforced in many Member States.

Reducing administrative burden and improving the quality of legislation

Ernst & Young estimated in 2010 that: "Western Europe is still perceived as the second most popular destination for FDI but in 2010 investors rank China the world's most attractive FDI destination, repeating its 2008 distinction. […] China has proved that political stability, advancing infrastructure and a vast internal market can co-exist with rapid growth, earning it .an attractiveness rating of 39%, a point ahead of Western Europe. […] In the past three years, international investors responded to trends in the global marketplace, recognizing that their return on investment could be as stable — and possibly more profitable — in emerging — or high growth markets, while their risks there could be made manageable. This partly explains why Western Europe's appeal as the most attractive destination for FDI collapsed from 68% of votes in 2006 to 38% in 2010. Enthusiasm for North America fell from 48% to 22% over the same period, while China's attractiveness ranking hovered at 40% and India's grew steadily during the years 2006-2010."[11]

Setting a target for the reduction of administrative burdens can act as a driver for reform in this sector. All Member States have adopted national targets for reducing administrative burden, normally by about 25% between 2008 and 2012. But not all Member States have effectively started to measure the current administrative burden which is needed as a baseline against which its reduction can be monitored. The Netherlands is an interesting example of successful reduction of administrative burden; the Dutch model has been replicated in other countries. Denmark but also other Nordic counties are also implementing ambitious programmes of reduction of administrative burdens.

Almost all Member States have administrative simplification programmes in place. An interesting example is Belgium where citizens and companies can submit ideas for simplification to a "Kafka contact point". The Czech Republic concentrates on the ten most burdensome legal acts. In Italy, a promising motto is "cutting laws, cutting burdens and cutting organisational bodies"; it will be important to follow its implementation closely.

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[10] COM(2008) 394 - http://ec.europa.eu/enterprise/entrepreneurship/sba_en.htm of 26.06.2008

[11] Ernst & Young: Waking up to the new Economy, European Attractiveness Survey 2010, http://www.ey.com/Publication/vwLUAssets/Attractiveness_survey_2010_EU/$FILE/Attractiveness_survey_2010_EU.pdf, pages 5-12.

Substantive progress has been made in the implementation of the Services Directive (Directive 2006/123/EC), which lead Member States to take a broad range of simplification measures, such as the reduction and lightening of authorisation schemes, the abolishment of excessive formalities (such as certified translations and certified copies), the removal of discriminatory or disproportionate conditions and the setting-up of Points of Single Contact (see below). Good progress has been made in most Member States but work still needs to be finalised in those countries that have accumulated delays in the implementation of the Directive.

Use of impact assessment in preparing legislation can also be an important tool in preventing that new legislation complicates conditions in the business environment. However, progress in developing and implementing impact assessment systems remains limited. Impact assessments for new legislative proposals are mandatory in a number of Member States; however, they are often only partial and superficial. Full impact assessments to analyse all significant economic, social and environmental impacts should be carried out. France has now enshrined impact assessments into its constitution. Some more countries (e.g. Spain) have recently made significant progress in making their assessments more relevant. Transparency can be further improved by making all impact assessments publicly available, which is currently the case only in a few Member States (e.g. Czech Republic, Denmark, France, and United Kingdom).

The role of stakeholders in designing legislation is equally important For consultation to have a significant impact on the quality of new legislation, early involvement of stakeholders remains crucial. A formal requirement to consult stakeholders exists in almost all Member States; however, implementation modes differ. Member States still not consulting interested parties on a regular basis would gain from introducing minimum consultation requirements for major policy proposals.

Modernising public administration

A highly performing and innovative public sector, enabling the delivery of sustainable, modern and quality public services, is a prerequisite for economic competitiveness. Given the deteriorating public finances, many Member States see only limited room for manoeuvre in delivering good public services. At the same time, public services need to respond to changing citizens' and businesses' needs in an evolving society. Thus, improving the efficiency and effectiveness of public spending has to feature high on the political agenda.

High-quality, reliable public services and legal certainty were historically a major pre-condition for the economic success of today’s front-runner countries. An interesting example for considerable progress in the quality of legislation and administrative burden reduction over the last decade is Estonia which now scores considerably above the EU average in these two categories.

The general reform of public administration is high on the agenda of several Member States (e.g. Bulgaria, Greece, Hungary, Portugal, Romania) for which weak administrative and judicial capacity as well as legal uncertainty constitute key impediments in addressing economic development challenges.

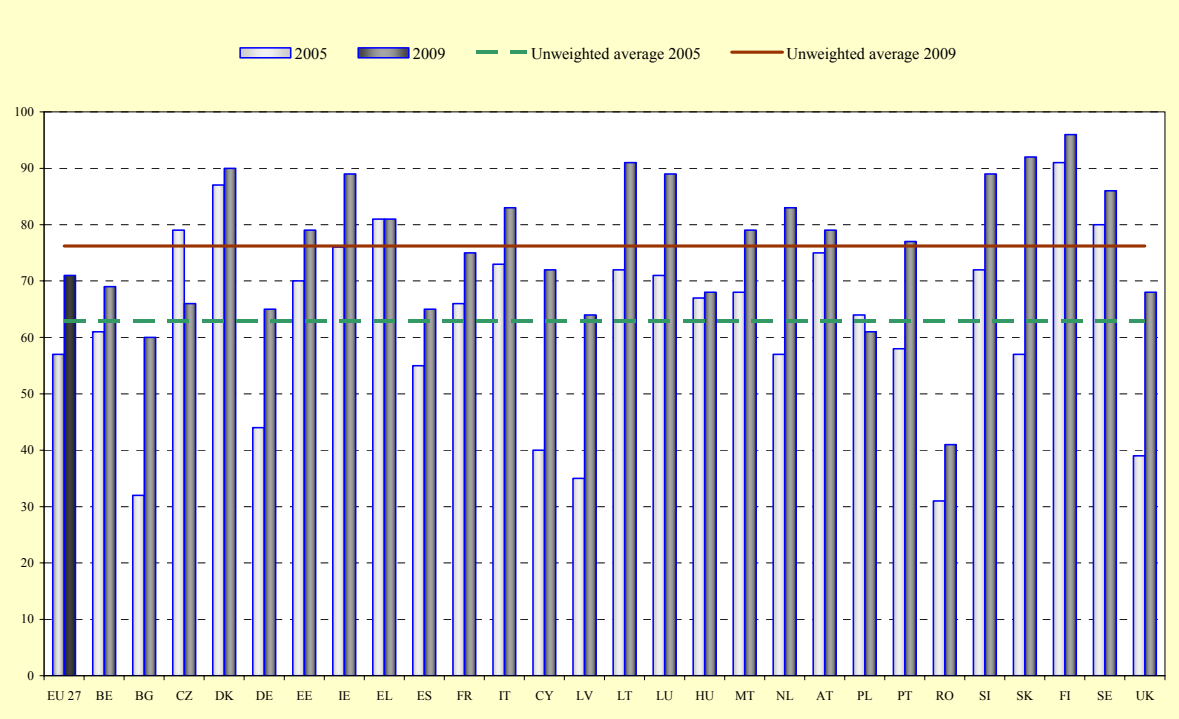
Electronic commerce offers new EU-wide business opportunities for SMEs, especially with the electronic payment market's integration into a Single Euro Payment Area (SEPA) and the resulting potential for innovation at European level in areas such as electronic invoicing or

internet payments. Yet e-commerce figures demonstrate that these opportunities are not yet fully exploited. Also, further developing e-government could permit SMEs spending less time on administrative procedures and gain new business opportunities. In particular, fully implementing EU legislation on e-procurement, practical e-Identification and e-Authentication for cross-border services would open up numerous new business opportunities across borders.

Usage of fully available online e-government basic services[12] by businesses was 71% in 2009 for the EU-27 (up from 57% in 2005; Graph IX). Usage by business was above 60% in all Member States, with the exception of Romania (41%). Almost half of the Member States have usage rates above 80%, while some of them approach saturation (Denmark, Finland, Lithuania and Slovakia), with rates above 90%.

In order to implement the Services Directive all Member States had to set up "Points of Single Contact" (PSCs), which are e-government portals allowing businesses to get all relevant information and complete procedures online. Such portals are now operational in 22 Member States. In 17 MS it is already possible to complete procedures online. Availability and user-friendliness of the PSCs will need to be improved in the future (in particular aspects such as cross-border accessibility and translation of information content).

Graph IX: E-government usage by enterprises (%)



Source: Eurostat, 2010

Note: The second column for Belgium relates to 2008 (not to 2009).

12 Source: Smarter, Faster, Better eGovernment: 8th Benchmark Measurement', Capgemini, 2009

Market functioning and competition policy

A well functioning Internal Market results in increased opportunities for business and ultimately improves competitiveness of European industry. In order to exploit the Internal Market's full potential the legislation needs to be timely and correctly transposed into national law and properly applied by all Member States.

In May 2010, the EU average transposition deficit of Internal Market directives stood at 0.9%, which is still in line with but very close to the interim target of 1% set by Heads of State and Government. 18 Member States achieved the 1% target. Belgium, Denmark, Italy, Malta, Slovakia, Finland and the U.K made the strongest progress in reducing their deficits. Most of the outstanding directives were in the areas transport and environment.

The number of infringement procedures remains high. Belgium records the highest number of infringement procedures (111 open procedures) in the EU, increasing its number of cases by 68% since November 2007. Greece, Belgium, Italy and Spain have more than 80 infringement procedures each, which compares to the EU average of 47 pending cases.

The level and quality of state aid granted by national governments has a significant impact on the functioning of the Internal Market. State aid should not distort competition and trade inside the Internal Market. To this end, Member States committed to reduce the general level of state aid and to shift the emphasis from supporting individual companies or sectors towards tackling horizontal objectives, environment, SMEs or training.

Between 2002 and 2007, the level of state aid to industry and services decreased annually on average by 2% and stood at 0.5% of EU GDP in 2007. The economic and financial crisis abruptly ended low levels of state aid. The overall level of State aid almost quintupled in 2008 compared to 2007 and increased to 2.2% of GDP because of aid granted to the financial sector. Crisis aid to the real economy granted through the Temporary State Aid Framework started only in 2009 and data are not yet available for all Member States. When excluding crisis measures, the largest grantors of aid to industry and services in 2008 are Germany, France, Italy and Spain. In relative terms, Hungary, Malta and Portugal grant the highest shares of state aid to industry and services in relation to their GDP in the EU.

2.4. Entrepreneurship and SME policy

Many Member States have introduced entrepreneurship programmes to make young people aware of the possibility to start an enterprise, either by integrating it into school and university curricula or by setting up extra projects. Interesting examples are Slovenia, Lithuania and Sweden where all stages of the educational system are covered and teachers receive extra training. In Latvia, hundreds of students can submit business plans annually in the context of a competition. The Netherlands established a programme for young entrepreneurs to do networking in the United States. Some countries are involved in programmes encouraging female entrepreneurship (e.g. Cyprus, Denmark, Greece, Finland, France, Germany, Iceland, Ireland, Italy, Norway, Poland, Slovakia and Sweden). Several Member States use considerable amounts of the Structural Funds for these programmes.

In all Member States, although with considerable variation[13]access to finance became more difficult during the financial and economic crisis. SMEs in particular experienced tightening credit conditions. Most governments have therefore introduced or expanded public guarantee schemes or provided direct state aid. In the meantime, the situation has slightly improved, but access to finance remains a critical bottleneck for future growth.

Most Member States benefited from the temporary framework for State aid measures[14] to support access to finance in the current financial and economic crisis increase in allowed state aid during the crisis to provide considerable financial support to business. These measures will need to be phased out again[15].

The April 2010 Bank Lending Survey of the European Central Bank indicated that the net tightening of credit standards on loans to SMEs in the euro zone remained almost unchanged, since 83% of surveyed banks kept their tight conditions. The survey also pointed to a weaker net demand for loans in the first quarter of 2010. Net demand for loans to enterprises was negative (-13%, as against -8% in the fourth quarter of 2009).

Some governments have permanently reduced or abolished the minimum capital requirements to set up a company (e.g. Germany, Netherlands, Latvia, Luxembourg), others relaxed the rules for business angels (e.g. Netherlands). Germany is an interesting example because it now allows a limited company to be set up with very small start capital. Many simplifications in legislation (including on issues such as legal form requirements, fixed tariffs or territorial restrictions) were made as a result of implementing the Services Directive.

Generally, not much progress has been made to reduce late payments (Graph XI). The situation only improved for Portugal and, to a lesser extent, Italy; both remain on a very high level. Worryingly, payment delays increased in several Member States, particularly in Spain and Germany. The shortening of payment terms and delays remains of particular importance for SMEs active in Greece, Italy, Portugal and Spain. These Member States have the largest scope for improvement in terms of payment period by public authorities (about 140 days on average).

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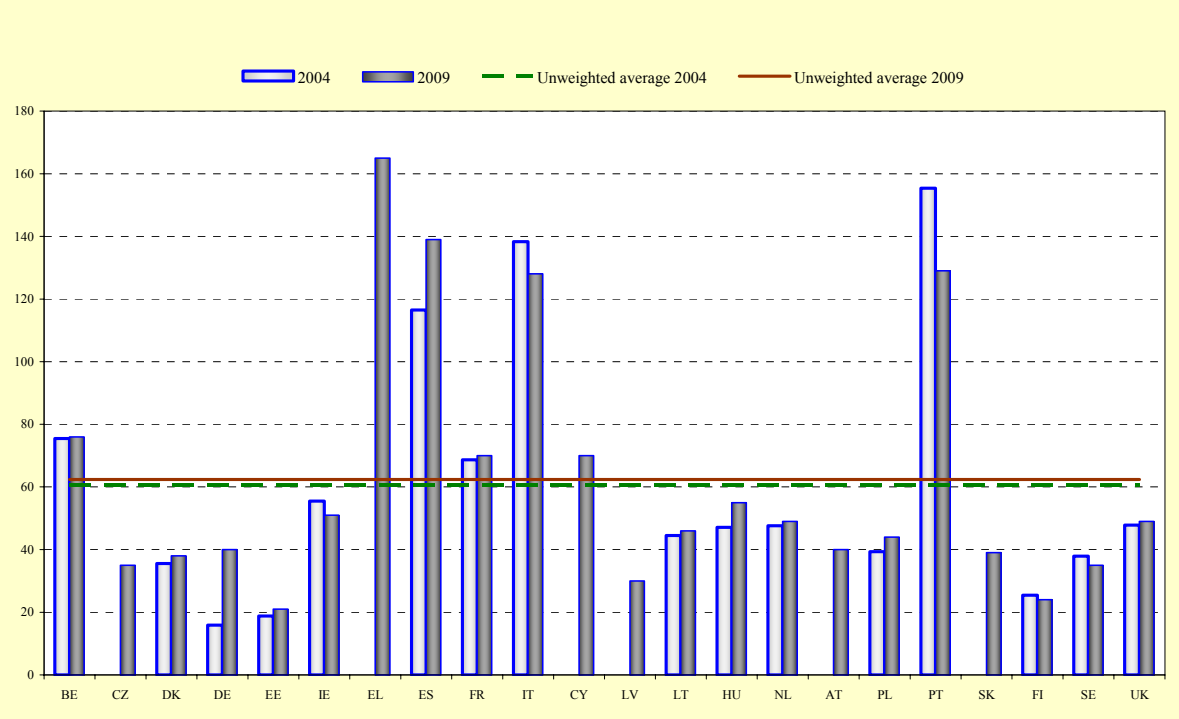
13 Comparing the change in stock of outstanding loans to non-financial companies by Member State before and after the beginning of the crisis reveals that some countries have been more seriously hit than others.

14 OJ C 83, 7.4.2009, p.1

15 The Temporary Framework has been extended until 2011, with reinforced conditions.

Graph XI: Duration of payments by public authorities (days)



Source: Eurostat, 2010

Many governments support the internationalisation of SMEs, e.g. by financial support for export promotion, market access strategies, participation in trade fairs, etc. (e.g. Belgium, Bulgaria, Czech Republic, Estonia, Italy, Hungary, Lithuania, Austria, Portugal and Sweden). Some of them (e.g. Denmark, Slovenia) focus on high-growth companies willing to internationalise, some others have established new export promotion agencies (e.g. Luxembourg). Others have stepped up efforts to increase foreign direct investment to disadvantaged regions (e.g. Hungary).

As part of their recovery measures a majority of Member States reinforced their export credit schemes (Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Luxembourg, Latvia, Lithuania, the Netherlands, Austria, Poland, Portugal and Sweden).

Implementing the Small Business Act (SBA)

The Small Business Act (SBA) was adopted by the Heads of State and Government in 2008. It consists of ten principles which should guide the conception and implementation of policies both at EU and national level. The aim is to create a level playing field for SMEs throughout the EU and to improve the administrative and legal environment so that these enterprises can realize their full potential.

All Member States have acknowledged the importance of a rapid implementation of actions agreed in the Small Business Act (SBA) at the end of 2008, but the approaches taken and the results achieved vary considerably between Member States. The overall assessment by major

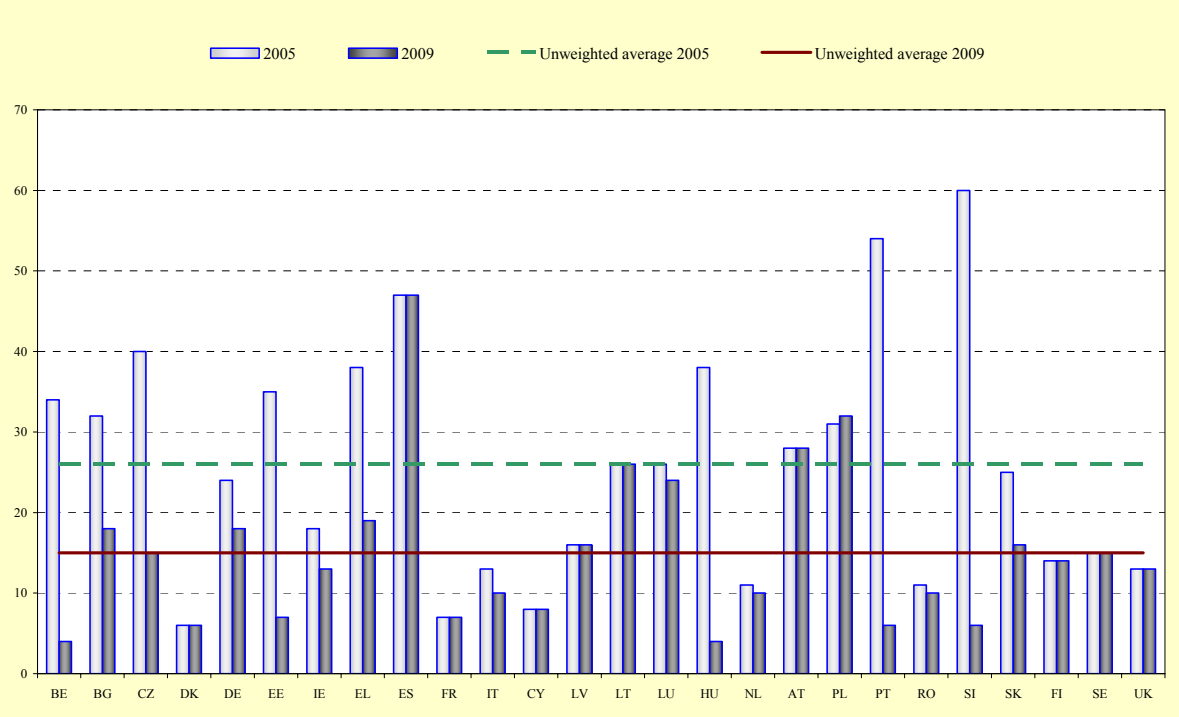
SME stakeholder organisations points to a slow uptake of the SBA in a number of Member States[16].

Member States are increasingly integrating the "Think Small First" principle in policy-making. Only few Member States (e.g. Belgium, Denmark, Finland, Germany, Slovenia and Sweden) have integrated an SME Test into their national decision making approach.

Several Member States consult SMEs representatives, in some cases in the framework of SME councils or fora (e.g. Spain, Estonia, Hungary, Ireland and Lithuania). Specific bodies such as SME agencies have been established to promote SME interests e.g. in Portugal and Bulgaria.

Considerable progress has been made to reduce the average time and cost to start up a company (Graph X). The average time to start-up a company was 15 days in 2009 according to the World Bank[17].

Graph X: Time needed to start a business (days)



Source: World Bank Doing business, 2010

Some twenty Member States have set up an operational physical one-stop-shop which is able to serve the creation of private limited companies and has developed pre-defined procedures

16 COM(2009) 680 – http://ec.europa.eu/enterprise/policies/sme/small-business-act/implementation/files/sba_imp_en.pdf

17 Word Bank, Doing Business project, see http://www.doingbusiness.org/

(company registration, tax registration, etc). Denmark is a good example, may provide one of the best services. At the same time, only a few countries (e.g. Cyprus, Netherlands, Spain, Malta) have a one-stop-shop system that can take care of recruitments (especially concerning the first employee). A few countries have procedures that are so simple that only one contact with a public administration is required (e.g. France, Ireland, Latvia, Sweden, Belgium). Some Member States aim at a zero-stop shop with a simple online registration (e.g. Poland). Another good example is Hungary where online registration of a company is now possible within one hour.

There is still scope to shorten the time needed to wind up a business in case of non-fraudulent bankruptcy. So far, only a few countries (e.g. Belgium, Estonia, Finland, Ireland, Latvia, Spain and the United Kingdom), have approached this issue. Estonia aims at a procedure that can be concluded within 3 months. Some countries have taken measures to facilitate restructuring instead of winding up companies (e.g. Czech Republic).

A "European Code of Best Practices" to facilitate SMEs' access to public procurement contracts was adopted as a part of the SBA; some of the countries which have started to promote it effectively are France, Hungary, Ireland, Lithuania, Poland and Sweden. In the overwhelming majority of Member States, SMEs' access to public procurement is not subject to a specific strategy or policy. The most widespread SME friendly measures remain cutting tenders into lots and facilitating access to information through centralised websites, interactive web pages, and other e-procurement developments. An important measure to encourage the participation of innovative SMEs is to define technical specifications in terms of performance or functional requirements. Some countries (e.g. the Netherlands) provide specific training and support for public officials drafting innovative tender documents.

Some Member States have explicitly reported on how they are implementing the SBA in their 2009 National Progress Reports for growth and jobs (e.g. Belgium, Finland, France, Ireland, the Netherlands, Romania and the United Kingdom). However, several Member States (i.e. Germany, Italy and Sweden) have already started separate SBA monitoring exercises and others may follow. To avoid fragmentation, it would be preferable to closely coordinate the regular monitoring of the SBA implementation with the National Reform Programmes under the Europe 2020 strategy.

2.5. Summary

Member States' industries are recovering, at various speeds, from their worst post war crisis. The national economic recovery measures taken in 2008-2009 have been effective in stabilising the situation. One can expect an acceleration of structural change because of the crisis but measuring and describing the main features of the changes will take more time, especially since the effects of the crisis are still felt acutely, particularly as concerns access to finance. Indeed, with very few exceptions, conditions for business bank loans remain tight and constitute a bottleneck on the way to faster recovery.

Only a limited number of Member States is not facing notable and identifiable challenges regarding their business environment especially for SMEs. Clearly, efforts to reduce administrative burden, to introduce better regulation and e-government, to apply the *think small first* principle and to simplify support schemes could be more systematic and more intense. This is an area where exchange of best practice can make the difference more efficiently as it provides the real life demonstration that the same objectives can be achieved in less burdensome ways.

Business environment has more aspects than lengthy and cumbersome procedures. In many Member States, increasing competition in the services sector (mainly retail and professional services but also network industries in some instances) remains a challenge, even if its visibility has become lower due to the crisis. Infrastructures (mainly road transport but also energy interconnections and generation) and public administration constitute important bottlenecks to growth in a limited number of cases.

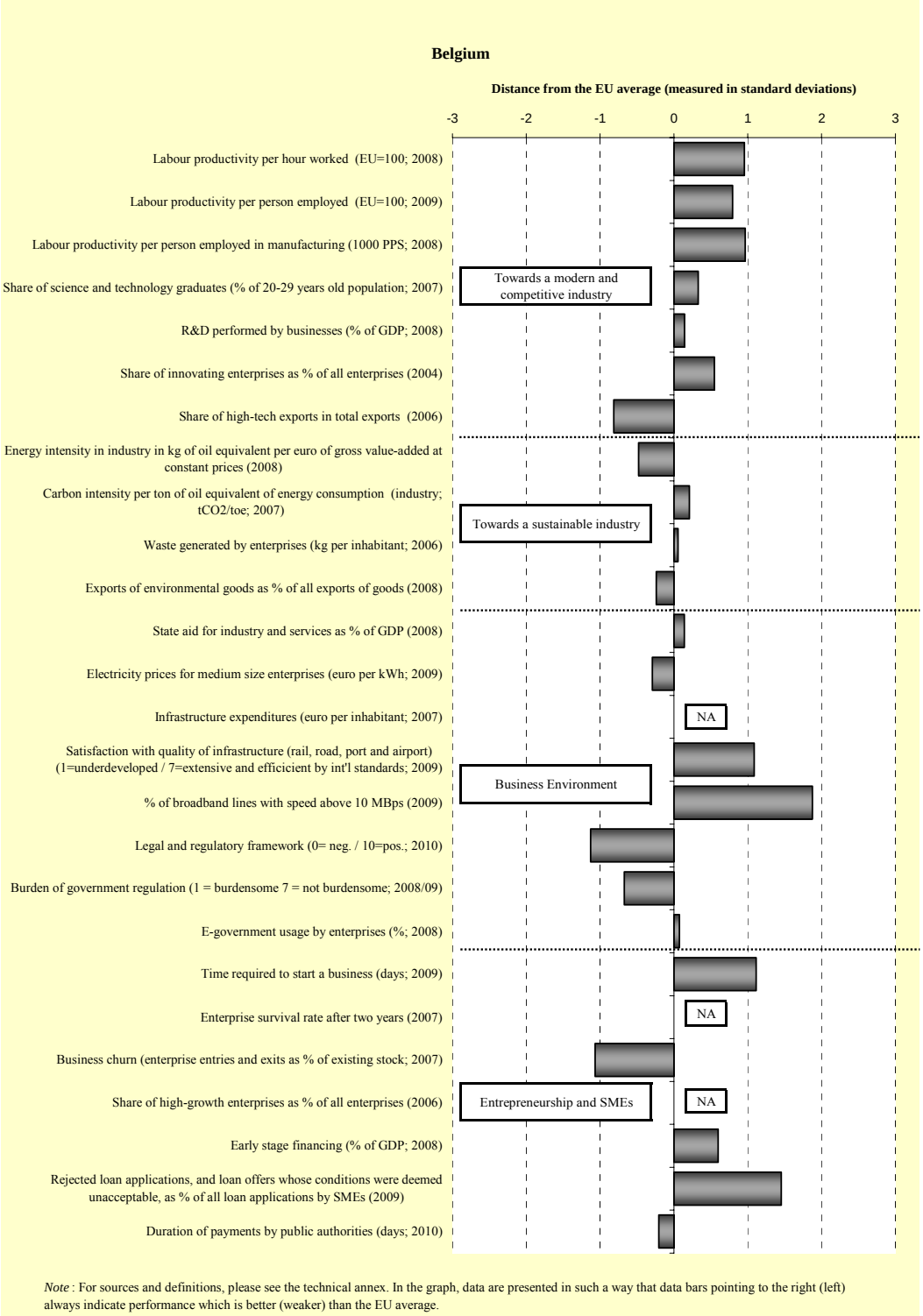
A striking finding is that the innovation leaders and their immediate followers reacted in a positive and proactive way to the crisis by adding new temporary actions encouraging research and innovation to those already existing. This is not generally the case for the countries below the EU average, indicating the possibility of a widening gap. Yet, the need to strengthen the structures of their production basis by increasing the share of technology- and skill-intensive activities is even more compelling in their case. Access to finance is an important bottleneck also with respect to innovation but is often combined with a lack of complementary skills. Many countries face additional challenges of a more institutional nature such as rethinking their strategy and priorities (not trying to do everything at the same time) and simplifying and consolidating their support-delivery mechanisms.

Above average energy intensity can be explained to some degree by the specialisation of the country's manufacturing sector, but not entirely; room for improvement generally exists. It represents a potential risk factor by exposing these sectors to sudden energy and CO_2 price variations. At policy level, whilst actions to assist enterprises in reducing their energy intensity exist everywhere, the same cannot be said for measures improving the efficiency of other resource use. Explicit strategies, together with corresponding concrete action plans, aiming at greening existing industries and encouraging the development of eco-industries are not numerous; in many cases, actions are isolated or fragmented.

3. COUNTRY CHAPTERS

3.1. Belgium

3.1.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.1.2. Introduction[18]

Belgium's labour productivity, measured either per person occupied or per hour worked, is significantly above the EU average. Belgium's real effective exchange rate appreciated moderately since 1999, albeit less than for most other EU countries, indicating a slightly decreased competitiveness. In parallel, nominal unit labour costs in Belgian manufacturing increased by 11% between 2000 and 2009 with a remarkable acceleration during the second half of the decade. However, the overall increase remained below the EU average of 19%.

Belgium is specialised in sectors demanding high skills and, decreasingly, in high-intermediate skill sectors. The role of low-intermediate skill sectors has been stable on a below average level from 1995 to 2005 while low skill sectors lost ground from an already low level. Nevertheless, Belgium shows a decreasing specialisation towards sectors with medium high technology intensity and an increase for medium low-technology sectors. There is a moderate specialisation towards sectors with above average growth in the EU.

Manufacturing plays a similar role for Belgium than for the EU in total (16% vs. 17% of value added in 2008). The only sub-sectors with clear above EU average importance are chemicals and refined petroleum. There is some specialisation in the service sector for education as well as for transport and communication and, in earlier years for financial intermediation. Employment figures also show the slowly decreasing importance of manufacturing over time and a growing importance of "real estate and business activities". Forecasts until 2020 expect an increase in employment in business and other services by some 9% while employment in manufacturing might drop further by some 12%.

Belgium's balance in the trade of goods showed, relative to the total volume of exports, a moderate surplus in 2005 and 2009. The trade surplus in manufacturing mainly resulted from surpluses in chemicals, basic metal products and food/drinks/tobacco while mainly electrical and optical equipment, transport equipment and other manufacturing showed noteworthy trade deficits. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Belgium in 2008 in chemicals and refined petroleum.

Exit from the crisis

In Belgium production in manufacturing sectors decreased by more than 20% as a result of the economic crisis; in June 2010, it reached again 87% of the pre-crisis level.

In response to the economic and financial crisis Belgium set up a major guarantee scheme under the Temporary State aid Framework with a total budget of EUR 1.5 billion. The use of the scheme by businesses was, however, not very intensive. The Belgium state also made export credits available with a total budget of EUR 300 million. For this purpose a new complementary export credit insurance scheme (Belgacap) has been introduced to secure inter-enterprise credit and help companies in their business transactions. It will remain into force until the end of 2010. On top of this, the 9.25% tax on insurance contracts covering commercial and country risks linked to exports has been suppressed.

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[18] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

The Federal Government introduced a reduction of the VAT rate for residential construction to soften the impact of the crisis on the construction sector. Although it was initially planned only to remain in force until the end of 2009, it was later extended to the end of 2010. The budgetary cost of this measure is estimated at EUR 300 million in 2009 (0.1% of GDP) and EUR 150 million in 2010 (less than 0.1% of GDP)[19].

Moreover companies were allowed to postpone certain tax payments during 2009, in particular VAT and income tax, to ease their liquidity constraints.

3.1.3. Towards an innovative industry

Belgium's research and innovation performance is characterised by high investments by the business sector, off-setting a relative under-investment by the public sector. These investments are precarious due to the dominance of a few large and foreign firms in the total expenditure. Belgium has a relatively well-educated population but is losing ground in the area of new science and technology (S&T) graduates; a situation worsened by the uncompetitive net wages paid to researchers and engineers. Finally, the low propensity to become an entrepreneur remains a cause for concern.

The extensive Belgian public support systems offer a large variety of measures focusing on R&D cooperation and promoting entrepreneurship and can be considered as complete. The structuring of public-private research efforts in the form of strategic research centres, competitiveness poles etc. is attractive for large, foreign R&D players. The high tax burden and relatively high labour costs remain, nonetheless, a negative element for conducting research in Belgium. Federal tax incentives are meant to decrease the burden, but are not at such a level that total costs for R&D are lower than in neighbouring countries with lower tax levels.

Industrial Policy is mainly implemented at the regional level through clusters and technology centres: In Flanders, after an evaluation of existing initiatives in 2008–2009, two new technological centres have been set up. In the Walloon region, networking between the 14 existing clusters is promoted (73% of the participating enterprises are SMEs) and greening the general orientation of the clusters and "pôles de compétitivité" is intended.

As regards the Belgian innovation system in particular, among the three major challenges is, first, the innovation skills mismatch. There is a low share of new S&T graduates, as well as a growing under-utilisation of lifelong learning. These two elements are essential to maintain an upsurge of skills and qualifications and, thus, to enhance the country's competitiveness. Second, creating and growing knowledge-intensive enterprises is essential. To achieve this, there is a need to boost the attractiveness of starting up innovative businesses, and to foster new businesses. The reliance on a few large and foreign firms is a risk, especially in the current economic context, and finally it seems necessary to create a favourable environment for the exploitation of research results in Belgium. R&D and innovation efforts do not yet bring sufficient results that ensure economic development.

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[19] The legality of this measure is questioned by the European Commission.

3.1.4. Towards a sustainable industry

The main policy orientations concern increased energy efficiency in buildings (with financial public incentives) and research activities (new clusters on materials, buildings, eco innovation, renewable energies). Green investments in the federal Recovery Plan represented 0.3% of GDP. The Federal Government has introduced a system of "Eco cheques" that has been included in the 2009-2010 general salary agreement allowing the purchase of green consumer products.

There is a wide variety of actions put forward by the three Belgian regions. Flanders encourages existing enterprise reducing their environmental impact through investment grants (reinforced for SMEs) allocated through an annual call for projects scheme. In addition, there is public support for the establishment of collaborative networks around eco-innovation themes that can generate concrete proposals and pilot experiments. Their utility resides in identifying opportunities and barriers of new business models and policy concepts. In parallel, after an evaluation of existing initiatives in 2008 – 2009, two new technological centres have been set up in Flanders: Flanders Synergy and Flanders Plastic Vision. In the light of the Opel crisis, the scope of the Flanders Drive cluster has been extended to cover all aspects of the "car of the future".

Investment grants, networking, covering environmental issues in R&D and innovation support are also used in the Walloon region. In addition, the region pursues sectoral agreements (commitments to reduce CO_2 emissions against various advantages) and intends to use systematically environmental clauses in regional public procurement. The Region also supports the greening of industry via clustering policy: a dedicated call in 2008 focused on projects in relation with sustainable development and climate change, and the creation of a 6th competitiveness pole in the field of eco-technologies is planned in 2010.

The Brussels region uses as well investment grants, networking facilitation and support to research and innovation to promote environmental objectives (e.g. the implementation of a strategic plan for developing environmental value chains, the Brussels Greenbiz business incubator, Bruxelles-Ecopôle etc).

The higher energy intensity is to some extent explained by the industrial structure of the country. Nevertheless it represents a potential disadvantage due to overexposure to energy and CO_2 price volatility.

3.1.5. The business environment

Belgium presents a mixed picture regarding the business environment as negative perceptions about the legal and regulatory framework and administrative burden coincide with rather good performance on specific issues such as regulation of business start-up. Infrastructure has a positive contribution to the business environment.

Belgium has pursued a range of initiatives in recent years to consolidate or simplify the regulatory stock, to reduce administrative burdens for businesses and to promote eGovernment and impact assessment. Policies range from projects shared between the federal and regional levels, to projects specific to each level within its area of competence, but these initiatives are not explicitly developed within the framework of an overarching policy strategy for Better Regulation. Shared projects include initiatives such as the *Kafka* contact point where citizens, businesses and public servants can propose ideas for cutting red tape and the

Business Cross Roads Bank, which is a register of business identification aimed at connecting different databanks of the administration and allowing re-use of data across administration.

Different approaches have been engaged to reduce administrative burdens: the federal government, the Walloon Region and, since 2009, the Brussels Capital Region have used a selective approach, based on testing and favouring a gradual evolution; the Flemish Region has taken a more systematic approach. Belgium has adopted in 2009 the target of 25% reduction of the administrative burden by 2012. The biannual surveys of the Federal Planning Bureau indicate that administrative burdens on business decreased from an estimated 3.5% of GDP in 2000 to 1.72% of GDP in 2010.

Belgium has taken steps to integrate *ex ante* impact assessment in the development of new regulations. At the Federal level, two tests exist: the *Kafka Test* to assess administrative burdens in new regulation (obligatory since October 2004) and the *Sustainable Development Impact Assessment* (SDIA, introduced in 2007). The Flemish Region introduced guidelines for regulatory impact assessments (RIA), including consultation. The Walloon Region focuses on the Kafka test (since May 2007) and pursues a general approach to encourage self-regulation. Consultation of stakeholders on new regulations is comprehensive in coverage and is based on institutionalised bodies per policy area.]

eGovernment in Belgium is an instrument helping the back office coordination and integration of different levels of governments and departments. It supports a range of Better Regulation initiatives, including databases on the stock of regulations and specific data banks such as the Cross Roads Bank for Enterprises, the Cross Roads Bank of Social Security, the data bank on vehicles (DIV), the data bank for VAT and Tax on the web. An e-ID for every Belgian has been introduced to simplify and modernise interaction with the administration for businesses and citizens. However, the business utilisation of public services online stands below the EU average. Belgium has a non-mandatory public eProcurement platform, that serves as a knowledge base for all public procurement related aspects and which is also the point of entrance towards e-Procurement tools such as e-Notification and e-Catalogue for public administration.

The one-stop-shop to start-up an enterprise (Guichet d'entreprises agréés) is fully operational.

Belgium scores above the EU average concerning the availability of high-speed broadband lines. However, electricity prices for medium size industry over the past years rose faster than in neighbouring countries and were higher than EU average in 2009 for the first time, indicating that the competition framework may not be strong enough. The market share of the dominant players is eroding slowly.

Belgium's business environment is characterized by a high administrative burden at different levels of administration. In spite of sustained efforts in this area, the reduction of burden of government regulation remains a challenge.

3.1.6. Entrepreneurship and SME policy

The SME sector in Belgium has a similar structure to that of the EU: the percentages of micro, small and medium sized enterprises and their contributions to employment and value added are on a par with the European averages. Concerning general SME policy, the federal government adopted in 2008 an action plan inspired by the European "Small Business Act" comprising 40 measures. An "SME test" is also in preparation.

In 2009, at federal level, a new legal entity for start-ups was introduced: the BVBA-starter. A Flemish Agency for Entrepreneurship was created in 2009. In 2007, the Walloon government introduced a program for entrepreneurship aimed at making young people aware of the possibility to start an enterprise. It followed a similar 'Ondernemend Onderwijs' plan that the Flemish government approved in 2006.

Concerning access to credits, in particular for SMEs, federal and regional governments have taken measures to reinforce the capital of SMEs and other structural or short-term measures: for instance creation of a credit ombudsman, the export guaranty scheme Belgacap and a reduction of public payment delays.

The Regions support private investments through the Participatie Maatschappij in Flanders and the SOWALFIN ("Coupole wallonne des PME"). Public investments projects, in particular for transport, energy or telecoms infrastructures, are ongoing.

3.1.7. Conclusions

Apart from the short-term concerns related to the economic crisis, such as getting easier access to bank financing, the main challenge facing industry is the Belgium's business environment which is characterized by high administrative burden and heavy legal and regulatory framework.

Moreover, the innovation system which has a low share of new science and technology graduates and a low share of high-tech exports in total exports, needs structural improvements, for example better international orientation of clusters and poles – general support measures for private research, in particular for SMEs.

3.2. Bulgaria

3.2.1. Indicators graph

Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.2.2. Introduction[20]

Bulgaria's labour productivity did not improve significantly since 2005. It was quite stable and did only reach some 40% of the EU average in 2008/9, measured per hour and per person. Bulgaria's real effective exchange rate depreciated slightly from its 1999 level to 2005 but appreciated very strong from 2005 to 2009, indicating significantly decreased competitiveness. Concomitantly, nominal unit labour costs in Bulgarian manufacturing decreased between 2000 and 2005 and then sharply increased resulting in an overall increase of 26%, which was significantly above the EU average of 19%.

Bulgaria had a deficit in the trade of goods in 2005 and 2009. After the significant economic slowdown in 2009, the currently expanding share of exports is a sign of a slight improvement of the Bulgarian competitiveness position.

Manufacturing plays a slightly bigger role for Bulgaria than for the EU in total (19% versus 17% of value added in 2008). This is mainly due to specialisation in textiles and clothing, refined petroleum, non-metallic mineral products and leather and footwear. In the service sector, only "transport and communication" and "electricity, gas and water supply" have an above EU average weight. The primary sector is larger than for the EU in whole due to the highest share of agriculture. In general, the Bulgarian economy is dominated by sectors with low and medium-low technology intensity. Sectors, with a total negative growth rate for the EU, play a strong and growing role in Bulgaria. Export growth is high in industries specialised in labour-intensive manufacturing, processing of natural resources and agriculture.

Employment figures show a low level of productivity in agriculture. Forecasts until 2020 expect an increase in employment in business and other services by some 40% while employment in the primary sector and in manufacturing might decrease by 25 to 30%.

Exit from the crisis

Bulgaria was confronted with one of the biggest drops of manufacturing output in the European Union. It fell by almost 35%, but regained 17% up to July 2010. Bulgaria did not introduce specific business and financial support measures under the Temporary State Aid Framework until 2010.

In reaction to the economic and financial crisis, Bulgaria introduced a limited number of other measures. The measures to support product markets mainly aim to improve the business environment (e.g. reduction of the initial capital required for the establishment of a company to 1 EUR, accelerated reimbursement of VAT), facilitate market entry, and enhance effective competition through strengthening the powers of the regulatory authorities. The effective implementation of the Energy Efficiency Act of 2007 will promote the use of energy saving technologies and higher energy efficiency in both production and consumption.

To ease access to financing for SMEs, the capital of the state-owned Bulgarian Development Bank was increased (0.75% of GDP) as well as that of the FLAG (Fund for Local Authorities and Governments) fund to support municipalities to absorb EU funding. Moreover, raising the

[20] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

credit limit of the Bulgarian Export Insurance Agency is expected to boost private sector exports.

3.2.3. Towards an innovative industry

According to the European Innovation Scoreboard (EIS) 2008, Bulgaria is one of the catching-up countries with an innovation performance well below the EU average. The relative strengths are in human resources, while the relative weaknesses are in entrepreneurship. Although research and development (R&D) expenditures in Bulgaria are increasing, they are still much lower than the EU average level. The structure of R&D expenditure remains strongly imbalanced. The share of public sector financing is double that of businesses. The percentage of SMEs with innovation activities and the share of innovative SMEs co-operating with others are below the EU average.

Measures have been proposed within the framework of the National Innovation Strategy in 2008 and 2009 aimed at strengthening the links between research and business (technology transfer centres), building the innovation infrastructure, strengthening the skills in entrepreneurship and innovation (entrepreneurship centres in universities), supporting existing clusters, developing new financial support schemes for innovation (Bulgarian Development Bank, business angels), etc. The Innovation Strategy is complemented by one major instrument – the Operational Programme "Competitiveness 2007-2013" funded by the European Regional Development Fund. However, only 2% of EU funding is dedicated to innovation and R&D.

Despite the above mentioned measures, no substantial changes took place in 2008 and 2009 in the research and innovation policy of the country. The lack of clear priorities at the highest levels of governance continues to be the major problem in the implementation of Bulgaria's innovation policy. The development of innovation policy is not accompanied by discussion between policy-makers and society and there is no monitoring and assessment of the measures which have been implemented. A prerequisite for the success of investments in new technologies is the implementation of a coordinated national policy in science, technology and innovation. The currently fragmented and uncoordinated policy support system is unsuited to the implementation of the unified research, technological and innovation policy that is needed.

3.2.4. Towards a sustainable industry

The robust economic growth in Bulgaria during the past decade is mainly explained by the investment boom in construction, real estate and the financial sector. Although, sustainability indicators are continually improving in the past years, the Bulgarian industry still remains several times more energy-intensive than the EU average. It also lags behind the EU average in terms of carbon intensity, waste generation by enterprises and exports of environmental goods.

Bulgaria has set an ambitious target of improving energy efficiency by 50% by 2020. The National Energy Efficiency Action Plan will need to be reinforced to meet this target. Legislation has been revised in view of encouraging introduction of energy-saving technologies in manufacturing and households. Increased energy efficiency is the main priority of the government, with the aim to reduce the energy intensity by 20% by the end of its mandate. Various possibilities for supporting these policies, including financial stimuli and regulatory measures will be sought. A second priority is to increase the share of local

renewable energy sources (RES) to 12% of total final energy consumption by the end of its mandate, and to at least 16% by 2020. In this regard, projections are being analysed to put forward an optimal RES technologies mix at the lowest public cost for achieving the objectives, as well as the necessary mechanisms and financial stimuli.

The absence of clearly defined national strategies in key areas such as resource efficiency, access to raw materials and development of environmental industries, constitutes a weakness in this area. The Operational Program "Environment 2007-2013" provides important funding resources for the development of "environmental" infrastructure. Timely implementation and the design of quality projects may prove challenging but they are essential for fostering the development of related industries, mainly in the field of water and waste management.

The Energy Strategy 2020 sets ambitious goals, whose completion will be very demanding in terms of new legislation, increased private investment and public acceptance. This implies the development and the adoption of a detailed plan for R&D, infrastructure and energy market regulation in light with EU developments in the field.

3.2.5. The business environment

Financing of SMEs and credit conditions have deteriorated during the past two years due to the financial crisis. But, despite the crisis, Bulgaria managed to leave tax rates at low levels (below the EU average). Bulgaria performs clearly better the EU average concerning electricity prices for medium size enterprises and the take-up of high-speed broadband lines, but it performs worse concerning infrastructure expenditures and satisfaction with the quality of infrastructure.

Bulgaria adopted in 2008 its Better Regulation Programme 2008-2010 with concrete objectives as regards simplification of more than 30 regulations, new centralised *ex-ante* impact assessments system for new laws, new more comprehensive scheme for consultation with stakeholders and screening of local authority regulations to eliminate non-legal municipal regulations and trade licence fees. Bulgaria adopted in 2009 the target of reduction of administrative burdens by 20% until 2012. The Action Plan for the implementation of the national target was finalised in April 2010 and includes 136 reduction proposals of information obligations such as submission of data and documents electronically and data collection by state authorities rather than business. If implemented, these measures could generate savings for businesses of up to EUR 13 million.

All eGovernment activities are now coordinated by the Ministry of Transport, Information Technology and Communications and have been developed within the framework of the Information society strategy (2008) and the Law on eGovernance (2008). In 2009, the usage by enterprises of eGovernment services still stands below the EU average, despite significant progress since 2005. Bulgaria introduced a web-based Public Procurement Register where contracting authorities are obliged to publish their tender notices (alongside with the Bulgarian State Gazette and the European Journal). The one stop shop to start-up a company is also fully operational.

In April 2010, the Government adopted a Strategy for development of transport system in Bulgaria by 2020. It defines the main priorities and measures that need to be implemented by 2020 in order to transform the transport system into a modern, safe, and secure system highly integrated into the European transport system. The current efforts to accelerate the construction of important infrastructural projects (e.g. Trakia highway, Sofia subway) will

have positive effects on the business environment in terms of putting in place new key transport infrastructure and an anti-crisis measure stimulating local businesses.

A major challenge for Bulgaria is to undertake important reforms to improve the business environment in the country. The actions, in the spheres of improving the functioning of the judicial system and fighting against corruption and organised crime, could be strengthened further.

Meanwhile, providing stability and predictability in the policy and regulatory environment is essential for the investment plans and business development of the enterprises operating in Bulgaria. It will also be an important challenge to take steps to encourage further competition, simplify licensing and authorisation procedures, optimise tax administration and develop professional skills/competency in the workforce as well as in the administration.

After implementing the law on Protection of Competition in 2009, the Commission on Protection of Competition needs to continue improving its supervision on the functioning of national markets. It has to effectively prevent concerted practices, abuses of monopoly position, and harmful concentrations which negatively affect the business environment (e.g. energy sector).

The modernisation of the transport infrastructure is a major challenge after years of underinvestment in important core areas such as highways, ports, and rail. The better usage of European structural funds will be a prerequisite for the successful completion of these projects as Bulgarian public funding is limited. The development and effective management of public-private partnerships could accelerate and attract the investment needed.

3.2.6. Entrepreneurship and SME policy

The contribution of SMEs to the overall economy, as measured by the value added, is somewhat lower in Bulgaria than in the EU (54 vs. 58%). However, in the period 2002-2008, employment growth of Bulgarian SMEs showed an overall increase of 41%, which is well above the EU average (12%).

In 2009, a National Export Strategy was developed. It includes measures to increase the efficiency of the SMEs' export through activities in the field of marketing, information, and promotion and through support for SMEs' participation in international exhibitions and fairs, organisations of business fora and missions.

The Operational Programme "Competitiveness 2007-2013" envisages special support to export oriented SMEs. The support includes encouragement of SMEs to benefit from the growth of the markets, support for participation in international economic, trade, investment and innovation events, creation of electronic portals and increase of export training.

Regarding entrepreneurship, in 2008/2009, Bulgaria supported young entrepreneurs from universities willing to start their own businesses. The project, named 'Technostart', had a budget of EUR 100 000.

Weaknesses exist in contract enforcement and lengthy administrative procedures. SMEs face severe credit conditions with excessive interest rates and requirements for collateral. Moreover, the number of government unpaid obligations to SMEs is a concern.

Concerning the field of innovation in SMEs, the available figures show that Bulgaria performs significantly below the EU average. This is a serious challenge for the Bulgarian SME policy as the overall result is mainly due to the relatively small share of SMEs that have new products or income from new products (37% as opposed to 64% of EU SMEs on average).

3.2.7. Conclusions

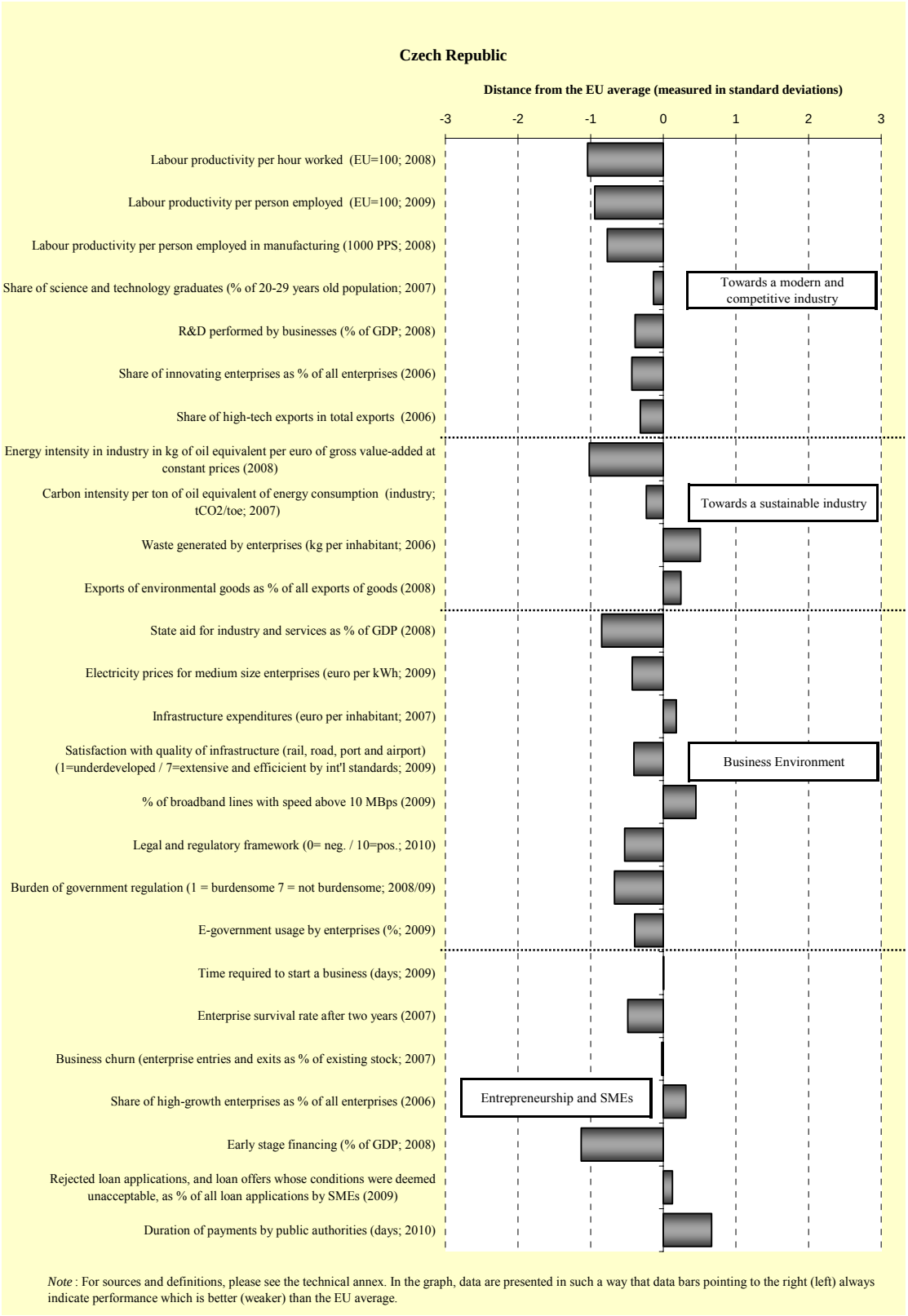
Bulgaria has to undertake important structural reforms to improve its competitiveness such as: cutting red tape at different levels of the state and local authorities, fostering innovation in view of increasing productivity, improving the energy efficiency across all sectors of the economy and developing the transport infrastructure. In the short term, absorption of structural funds which is crucial in supporting these undertakings remains dramatically low. Hence, it has been urgent to ensure the proper mechanism for management and control of the funds.

There are still weak cooperation and coordination between research institutions and business. Attribution of patents is rather slow and the same applies to the implementation of the measures being part of the existing innovation and R&D programmes. Bulgaria needs to improve its administrative capacity and simplify existing rules and procedures in order to accelerate the absorption of funding in all sectors.

In the short term, excessive interest rates, required collateral and securities and government arrears remain a significant burden to business.

3.3. Czech Republic

3.3.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.3.2. Introduction[21]

The Czech Republic's labour productivity was, measured per hour, at around 60% of the EU average in 2005 and 2008; measured per person, labour productivity reached some 70% of the EU average in 2009. Nominal unit labour costs in Czech manufacturing remained broadly stable between 2000 and 2009, underlying a solid competitiveness position of the Czech manufacturing sector. At the same time, the Czech Republic showed one of the strongest appreciations in the real effective exchange rate from its 1999 level to 2005 and 2009.

The Czech Republic remains specialised mainly in sectors demanding low and low-intermediate skills. The importance of high-intermediate skill sectors has been stable at the average level from 1997 to 2007 and high skill sectors are clearly underrepresented. This picture is supported by a rather low and declining share of high technology sectors, while there is a clear specialisation in medium low technology categories. Sectors with a negative growth rate for the EU in total are still important, although medium-high growth sectors are becoming more prominent.

Manufacturing plays a much bigger role for the Czech Republic than for the EU in total (25% vs. 17% of value added in 2008). This is mainly due to specialisation on transport equipment, electrical and optical equipment, non-metallic minerals, basic metal products, rubber and plastics and wood products. In the service sector, only the "transport and communication" has an above average weight. The primary sector is larger than for the EU in total due to agriculture and to mining and quarrying. Employment figures show a low level of productivity in agriculture and manufacturing and a slow shift to services over time. Forecasts until 2020 expect an increase in employment in business and other services and in non-market services by almost 10% while employment in manufacturing might decrease moderately.

The Czech Republic's shows a small trade surplus. The positive trade balance in manufacturing mainly resulted from a surplus in transport equipment while only chemicals showed a noteworthy trade deficit. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for the Czech Republic in 2008 in non-metallic mineral products, electrical and optical equipment and rubber and plastics.

Exit from the crisis

Czech manufacturing output fell by 23% but it stands in July 2010 again at 85% of pre-crisis level. The crisis hit the Czech Republic relatively late and economic recovery is expected within the next two years. Its speed will depend on the recovery abroad and particularly of the main trading partners[22].The government adopted various temporary measures to ease financial constraints in the business sector, SMEs and exporters in particular, presented more in detail in the SME section.

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[21] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

[22] 2009 Analysis of the Czech Economy and Sectors: http://www.mpo.cz/dokument66054.html

3.3.3. Towards an innovative industry

The innovation performance of the Czech Republic has been improving and it is slowly but steadily converging to the EU-27 average. The strong inflows of FDI led to an important technology and knowledge transfer, in particular in the manufacturing and automotive sector.

Regarding research and innovation policy in general, a revision of the law on support for R&D from public funds became effective as of 1 July 2009. Based on this law, the Czech Technological Agency was established with the task of allocating most of the public funds for the support of applied research and innovation. This should result in a significantly simpler and more transparent system of public support for research and innovation.

Another milestone was the approval of the new 'National Policy of Research, Development and Innovation of the CR for 2009-15' in June 2009. This policy focuses on nine areas of the national innovation system for which it sets partial targets and a set of associated measures.

Its main objectives are: to implement strategic management at all levels; to focus public support on sustainable development; to enhance effectiveness of the system of public support for R&D; to use R&D results in innovation and improve the cooperation of public and private sector in R&D; to improve the participation of the Czech Republic in international cooperation in research and innovation; to ensure quality human resources for research and innovation; to create in the Czech Republic an environment stimulating research and innovation; to ensure links to other policies; and finally to thoroughly evaluate the research and innovation system.

A specific programme supporting industrial R&D, called "TIP"[23], is operational since 2009. Its budget for the 5-years period reaches up to 11 billion CZK (EUR 433 million in 2009 exchange rates).

A number of challenges can be identified: first, cooperation between research sector and industry could be strengthened to tackle insufficient linkages in the process of creation, transfer and utilization of new knowledge; second, researchers and S&E graduates are lacking, which can negatively influence the further development of a knowledge-based economy in the Czech Republic. The lack of qualified research staff has already become an essential limiting factor in further development of industrial R&D. Third, IPR are insufficiently protected, which hinders the commercialisation of R&D results and transformation of new knowledge into innovation. And fourth, there is a persistent lack of financial resources in the form of venture capital or other forms of risk capital.

3.3.4. Towards a sustainable industry

The Czech industry is one of the most energy intensive ones in the EU. On the other hand, the share of environmental goods in the exports of Czech enterprises is high and they generate a relatively low volume of waste.

Sustainable industrial development is defined as a horizontal priority in the Operational Programme Enterprise and Innovation (OPEI), co-financed by the Structural Funds, in the current period 2007 - 2013. In manufacturing, the emphasis lies on material and energy-intensive segments, as well as on preferential use of secondary raw materials.

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[23] http://www.mpo.cz/dokument73229.html

An update of the State Programme in Support of Energy Savings and the Usage of Renewable Energy Sources, the EFECT Programme, was adopted in July 2009. The aim of the programme is to support energy saving and renewable energy as well as further development and commercial use of technological innovations.

As of 2010, the Czech Republic is involved in the pilot project of the Environmental Technologies Verification system (ETV). Its aim is to verify the effectiveness and potential impact of new technologies on the environment.

In June 2010, he Government adopted 'Rules of the application of environmental criteria in public procurement and purchases of government and public administration'. These rules contain a binding procedure for two selected product groups (office and computer equipment and office furniture) and five product groups for which the requirement to use the procedure is binding by 30 June 2011. For another 12 product groups the procedure will be used in response to developments at the international level.

The increase of energy efficiency and the use of renewable energy remains the main challenge. The level of ambition of the ongoing revision of the waste management policy will be a decisive factor stimulating reduction and recycling of the produced industrial waste. Implementation of the new 'green' public procurement rules will require close scrutiny.

3.3.5. The business environment

Although the Czech Republic scores above the EU average concerning the take-up of high-speed broadband lines, only 78% of business have broadband fixed access compared to the 83% of EU average. The Czech Republic provides relatively higher levels of state aid and has higher electricity prices for medium-size enterprises than the EU average. The score concerning the legal and regulatory framework as well as the burden of government regulation is also below EU average, as well as the usage of eGovernment services by enterprises.

The Czech Republic has made significant progress in bringing the better regulation agenda forward over the period 2007-2009. Several initiatives were launched, in particular the adoption of the Smart Administration Strategy, the Action Plan for Reducing Red Tape and guidance documents on impact assessments and consultation of stakeholders.

In 2007, the Czech Republic adopted the target to reduce the administrative burdens by 20% until 2010. The Action Plan for the reduction of administrative burden for entrepreneurs was launched in 2008. Until the end of 2008, approximately 8% reduction was already achieved (this corresponds to some CZK[24] 6.1 billion – EUR 0.24 billion in 2009 exchange rates). The Report on the implementation of the 2010 Action Plan published in 2009 proposed inter alia to speed up the whole process by focusing on 10 acts generating the highest administrative burden (CZK 55 billion/EUR 2.2 billion in 2009 exchange rates each year). By the end of 2010 the reduction of administrative burden is expected to reach 20.05%.

A comprehensive review of the impact assessment system conducted in 2009 resulted in several proposals as regards reducing assessments' formalism, extending its scope also to strategic and concept documents, promoting its application to non-Governmental draft

[24] 1 EUR = 25,42 CZK

regulation and its possible application during the phase of formulating national positions on EC legislation under preparation.

The Czech Republic has an ambitious eGovernment strategy but its implementation is being delayed. The data boxes (electronic delivery system destined for the sending and receiving of documents relating to the public authorities) were launched on 1 November 2009 and are still in a start phase. The system of electronic national registries is yet to be launched. The number of Czech POINTs (public administration contact points) reached 6000 in June 2010. The national eProcurement platform is mandatory for the publication of tenders above the national threshold, which remains rather high and does not bring about the desired transparency of the public procurement system.

A revision and simplification of the existing regulatory framework will be needed to create conditions conducive to economic growth. In this respect, full implementation of the administrative burden reduction programme and its continuation is a key for further progress. Similarly, recommendations on the improvement of the impact assessment are still awaiting implementation. Launch of the e-government remains slow and rather limited and awareness is low. Full benefits of the eProcurement platform are still to be reaped, also depending on its future scope.

3.3.6. Entrepreneurship and SME policy

The Czech Republic has adopted several measures recently to support entrepreneurship and its SMEs. For example, curricula in general secondary education include economic background education and essential competences for entrepreneurship since 2009. The approach is to introduce entrepreneurship education into the school curriculum via General Education Programmes (GEPs) within the overall framework of the national Lifelong Learning Strategy, which is designed to establish a "new approach to education". Entrepreneurial activities are included as components of the new key competences within the National Curriculum. Other measures concern financing conditions where the Czech Republic scores clearly above the EU average concerning the payments duration by public authorities, but below concerning early stage financing.

The Marketing Programme is focused on the development of the activities of Czech exporters on foreign markets and on increasing the exploitation of export opportunities that exist on the global market. This Programme is also part of the Operational Programme Enterprise and Innovation 2007-2013, co-financed by the Structural Funds. Measures included are e.g. acquisition of marketing information, conducting studies of entry into these markets, presentations and participation of companies at trade fairs and exhibitions abroad and the creation of promotional materials.

Regarding access to finance, the Operational Programme includes new measures focusing on the use of venture capital funds and business angels to support innovative projects of young and high growth enterprises. In addition, financial support for SMEs is foreseen in the form of interest-free and advantageous subordinated loans.

Several temporary measures to support businesses, in particular by easing the financial constraints during the crisis and stimulating investment, were implemented in the course of 2009. These include faster write-offs of investment goods, faster VAT refunds and cancellation of advance payments of personal and corporate income tax for small businesses with up to 5 employees.

Guarantee and support schemes for lending to SMEs amounting to CZK 2.1 billion (0.05% of GDP, EUR 83 million in 2009 exchange rates) were provided in 2009 to ease the access to finance during the crisis period. Additional funds from the state budget were provided to the Czech-Moravian Guarantee and Development Bank as a one-off measure. The Bank used the resources to provide additional credit and guarantees for SMEs.

In order to facilitate trade and export financing, the Czech authorities decided to provide a one-off increase in capital of the Czech Export Bank, the Export Guarantee and Insurance Corporation (EGAP) and the Czech-Moravian Guarantee and Development Bank. Overall, the capital injections amounted to more than CZK 3 billion/EUR 118 million in 2009 exchange rates (0.1% of GDP). Additional capital was aimed at increasing the capacity to provide credits to Czech exporters in a situation when commercial banks tightened conditions for export credits. At the same time, the EGAP decided to temporary increase insurance cover of risks related to export credits, Letters of Credits and bank guarantees.

The Act on Insolvency and its Resolution was amended with the aim to ease the restructuration rather than the bankruptcy of insolvent companies.

Access to finance remains extremely difficult for small and medium sized enterprises. The situation has considerably deteriorated during the economic crisis. The impact of anti-crisis measures is still to be evaluated and the most efficient measures identified. On this basis, follow-up measures of a more structural nature will need to be designed in a comprehensive manner.

3.3.7. Conclusions

Despite the relatively low labour costs which have been clearly below the EU average in 2005 and 2009 and strong inflows of FDI bringing about an important technology and knowledge transfer, the Czech Republic faces one of the strongest appreciations of its real effective exchange rate. Moreover, the Czech Republic remains mainly specialised in sectors demanding low and low-intermediate skills and its business regulatory environment is still relatively burdensome. In the light of these trends, a number of challenges will need to be addressed to facilitate a transition of the Czech economy to an innovation-driven economy.

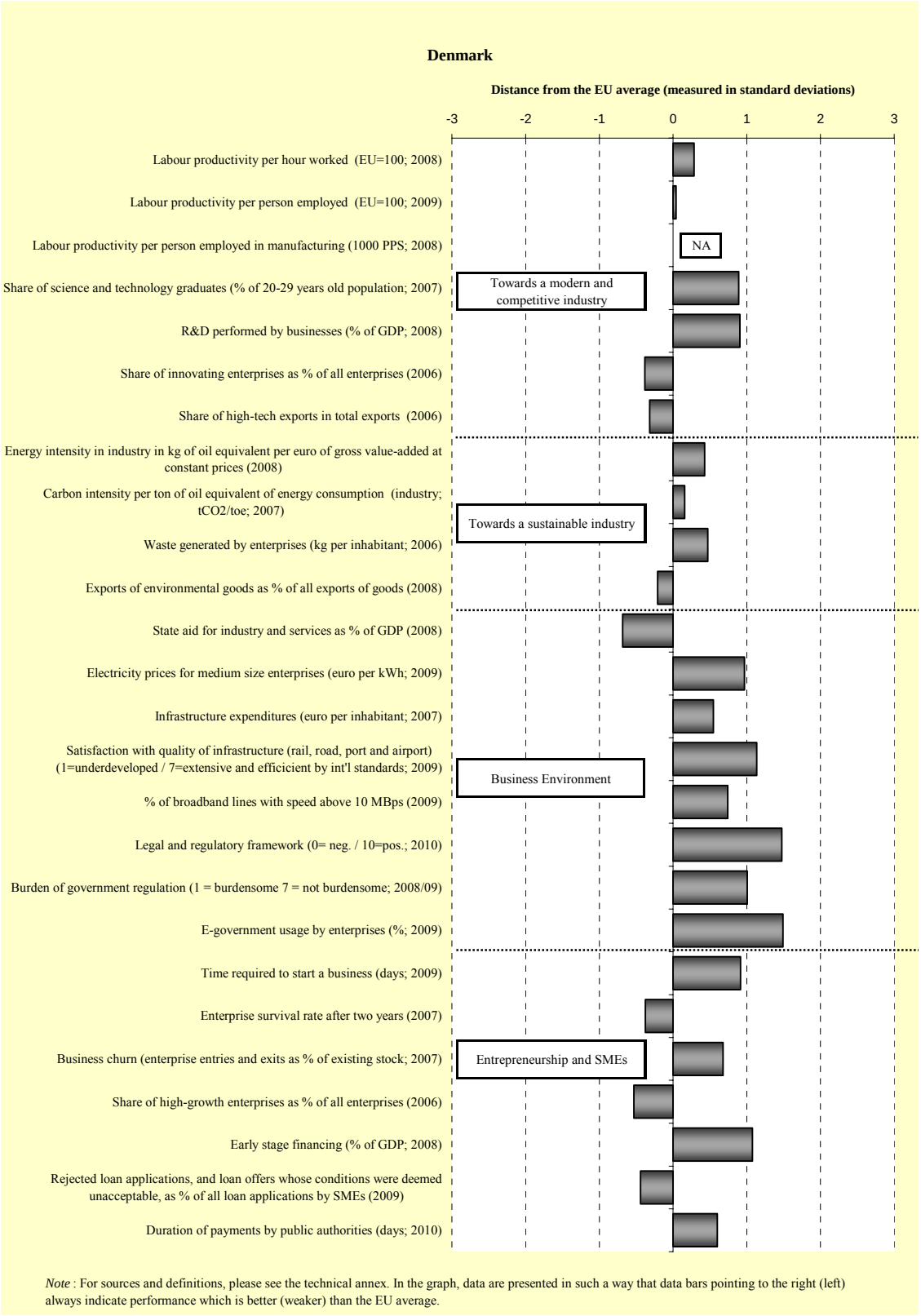
The lack of cooperation between research sector and industry hinders the process of creation, transfer and utilization of new knowledge. Moreover, the lack of qualified research staff has already become an essential limiting factor in further development of industrial R&D. Positive developments of 2009 in this regard are the establishment of the Czech Technological Agency and the launch of the programme supporting industrial R&D. There is a considerable potential for the increase of energy efficiency and the use of renewable energy.

The existing regulatory framework does not sufficiently create conditions conducive to economic growth and its revision and simplification has become a necessity. In this respect, continuation of the administrative burden reduction programme implementation is a key.

E-government services and e-procurement are yet to be widely disseminated and extended. Access to finance remains extremely difficult for small and medium sized enterprises.

3.4. Denmark

3.4.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.4.2. Introduction[25]

Denmark's labour productivity was, measured per hour, clearly above the EU average in 2005 and 2008 and approaching the average from above measured per person. However, Danish labour productivity growth has lagged behind most OECD countries for a decade and a half and labour costs have increased more than in the main trading partner countries, leading to a deterioration of the competitive position, particularly accentuated in the years after 2004. Denmark's real effective exchange rate appreciated since 1999, indicating decreased competitiveness. Concomitantly, nominal unit labour costs in Danish manufacturing increased by 27% between 2000 and 2009, thus 8 percentage points faster than the EU average of 19%. However, during the first half of 2010 the real exchange rate of the DKK has depreciated.

Manufacturing plays a smaller role for Denmark than for the EU in total (15% vs. 17% of value added in 2008). Denmark is specialised in sectors demanding high-intermediate skills. While specialisation on high and low-intermediate skill sectors remained stable at the EU average, low skill sectors gained some ground at a low level. Denmark tends to be specialised on sectors that have a growth rate below the average for the EU in total.

Compared to the EU, the Danish manufacturing sector is specialised to some degree in other machinery and in other manufacturing (notably furniture). Regarding services industries Denmark is specialised in services providing transport and communication, and health and social work. In the primary sector, Denmark shows a strong specialisation in mining and quarrying and fishing.

Denmark's balance in the trade of goods shows a surplus; relative to the total volume of exports it was the third-largest in the EU in 2009. The positive trade balance mainly resulted from surpluses in mining and quarrying for the primary sector, and from food, drinks and tobacco for manufacturing. The manufacturing industries producing chemicals, including pharmaceuticals, and other machinery also generated significant trade surpluses. Imports of transport equipment, basic metals and metal products were considerably larger than exports of these products, generating significant trade deficits. High technology manufacturing industries accounted for 50% of both exports and imports. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Denmark in 2008 in foods, drinks and tobacco, other manufacturing and textiles and clothing.

Exit from the crisis

Relative to the peak before the crises, Danish manufacturing output at the trough had dropped by 26%. In July 2010, 16% were regained which means that output remains at 90% of the pre-crisis level. In reaction to the economic and financial crisis the Danish Export Credit Fund (*Eksport Kredit Fonden,* EKF) was significantly increased. Funding for the EKF was increased by DKK 20 billion (EUR 2.7 billion) and EKF has been given the possibility to provide re-insurance agreements of up to DKK 10 billion pr. year with private insurance companies.

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[25] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

Although interest rates are at a five year low a substantial number of companies face difficulties in access to finance. Bottlenecks also remain in short term credit insurance markets.

3.4.3. Towards an innovative industry

The European Innovation Scoreboard (EIS) indicators continue to place Denmark among the top performing EU countries with an innovation performance well above the EU average. Furthermore, the country has been labelled an 'innovation leader' in the EIS 2008 along with Sweden, Switzerland, Finland, Germany, and UK. However, together with Sweden and UK, Denmark is in the sub group of 'slow growers' on innovation performance. The Danish Government's *Globalisation Strategy* and corresponding and matching national policies in areas including innovation, education, energy and the environment, indicate how Denmark aims at being a country with industries able to be highly competitive.

The Danish government has reformed and reorganised more or less all aspects of the innovation system over the last eight years. The most important reforms have targeted universities, public research institutions, the technology service system, the advisory and funding structures and the regional innovation system. At the same time, new strategies and action plans have been formulated regarding national and regional growth, collaboration between the public and private spheres, knowledge development, strategic research, etc.

It seems there is no reason for dramatic or radical changes to the Danish innovation policy system. A number of challenges nevertheless remain. Indeed, despite the growth-friendly business environment, there are concerns about the relatively limited innovation capacity and relatively high price levels, especially in the service sector and especially the sectors not exposed to international competition. This is partly due to insufficient competition which discourages the uptake of new technologies and productivity. In the medium term, further expansion of R&D is at risk of being limited by increased scarcity of science and technology graduates.

3.4.4. Towards a sustainable industry

On the basis of existing indicators the performance of the Danish industry can be characterised as rather strong. This relates to, for example, the relatively low energy and carbon intensity in the industry.

The Government has set a target of additional 1.5% in annual savings in the end use of energy, with energy companies expected to deliver considerable proportion of these savings. A climate commission has been set up to devise comprehensive policy proposals for significantly reducing greenhouse gas emissions, and eventually make the Danish energy systems independent from fossil fuels. In March 2009, the Government published its new strategy on sustainable development. It forms the basis of strategic nature and environment policy by focusing on targets and resources to be promoted. The strategy also deals with ways in which environmental, economic and social targets can support each other in an integrated strategy for sustainability. In April 2009, new catalogues have been published on grants and funding possibilities, and the competencies of the various Danish research institutions in the environment sector. In June 2009, the Government agreed on a 'Green Growth' initiative, which includes a strategy for a green agriculture and food production industry.

In October 2009, the Government launched a Business Strategy on Climate Change with the aim of transforming the challenges of climate change into opportunities for Danish companies for new business, exports and jobs. The green part of the Danish tax reform in the Spring Package 2.0 will contribute to reducing emissions of greenhouse gases. The reform will account for almost two percentage points of the total Danish reduction target of 20 per cent up to 2020 for sectors outside the EU emission trading system (ETS). A Secretariat for Eco-efficient Technologies was established in the Environmental Protection Agency to offer advice to businesses and entrepreneurs on environment focus areas, upcoming legislation and finance opportunities. A new website was also launched (www.ecoinnovation.dk) to follow development in environmental technology.

Based on an analysis of 639 COMEXT trade codes, Danish exports of energy technology and energy equipment grew by 400% between 1995 and 2008 compared with 200% for EU as a whole. Looking at export trends in specific sub-areas of energy technology and energy equipment, Denmark has a clear position of strength in the field of wind-turbine components and insulation materials.

3.4.5. The business environment

Denmark scores clearly above the EU average in all indicator categories with the exception of the level of state aid. Denmark ranks among Member States with the lowest burden of government regulation, with a legal and regulatory environment that highly encourages the competitiveness of enterprises.

Regulatory reform has been on the agenda of the Danish government for over two decades with the aim of modernising the public sector and promoting an efficient business environment. Denmark has launched a range of initiatives to ensure continued focus on better regulation, multi-level regulatory governance, reduction of administrative burden for business and strengthening impact assessment procedures.

As regards the reduction of the administrative burdens for businesses, the Government's objective is to achieve the target of 25% reduction in 2010 relative to the 2001 level. Over the period 2001-2009, 20% of the 25% target has been achieved. If all of the 37 initiatives of the plan were implemented, the total administrative costs would be reduced by 25%.

The third strategic programme to develop eGovernment is focused on improving digital services, efficiency and collaboration across all levels of governments. It includes the ambitious objective of digitalising all relevant communication between government and business by 2012. In 2009, the online availability of public services was 100% for enterprises and eGovernment usage by business one of the highest in the EU.

Denmark is one of the best performing countries regarding the one-stop-shop (Danish Commerce and Companies Agency, DCCA) which is fully operational and web based. Denmark was the first Member State to implement the new public procurement directives. As far as public service contracts below the EU threshold value are concerned, Denmark also revised the Danish Public Tender Act, increasing competition and reducing the administrative burden.

3.4.6. Entrepreneurship and SME policy

The SME sector in Denmark contributes almost the same as in the EU in total employment (66% vs. 67.4%) but significantly more in terms of value added (67.8% vs. 57.9%). SMEs in Denmark tend to be larger, as the small and medium size classes are markedly larger. Denmark scores clearly above the EU average concerning time required to start a business, business churn, early stage financing and payments duration by public authorities. However, it performs below average concerning the share of high-growth enterprises and bank loan conditions.

Denmark launched a national strategy for education and training in entrepreneurship in 2009 with objectives for each education level for how supply pupils and students with the ability to think innovatively, see opportunities and turn ideas into value. To strengthen and create a coherent national commitment a Foundation for Entrepreneurship was established to become a national knowledge centre for education and training in entrepreneurship.

The Gazelle Growth Programme was set up in 2007 aiming at strengthening innovation and growth among growth-oriented SMEs. The programme is an action-orientated business development process that provides hands-on support and know-how to businesses with strong growth potential. 'Erhvervspakken' which was launched by the Government in the autumn of 2009 encompassed a number of initiatives aiming at supporting SMEs by increasing possibilities to get access to finance, financing export projects, and developing markets within the Danish welfare system, e.g. health-care services.

Two SME programmes, coordinated by the Trade Council of Denmark, support the export activities of SMEs. The programme 'export preparation' provides SMEs with individual concrete advice on export opportunities. Secondly, the programme 'export start' offers concrete information to SMEs on export markets, e.g. market studies, partner search, competitor analysis, etc. In addition, a closer coordination between the regional Business Links and the Trade Council of Denmark has been established. The aim is to provide specific advice to SMEs with growth potential on export opportunities and internationalization.

The Export Credit Fund (Eksport Kredit Fonden) finances export projects in uncertain markets. By the end of 2008, the overall engagement funded by this Fund was of EUR 494 million (DKK 31 billion). In September 2010 the Government extended the programme for financing export projects until 2011.

The low share of high-growth enterprises may have negative consequences for future growth of the Danish economy. Since the relatively high level of early stage financing does not constitute an obstacle, there might be other factors in play. Their identification should give hints as to the policy measures needed to address this issue.

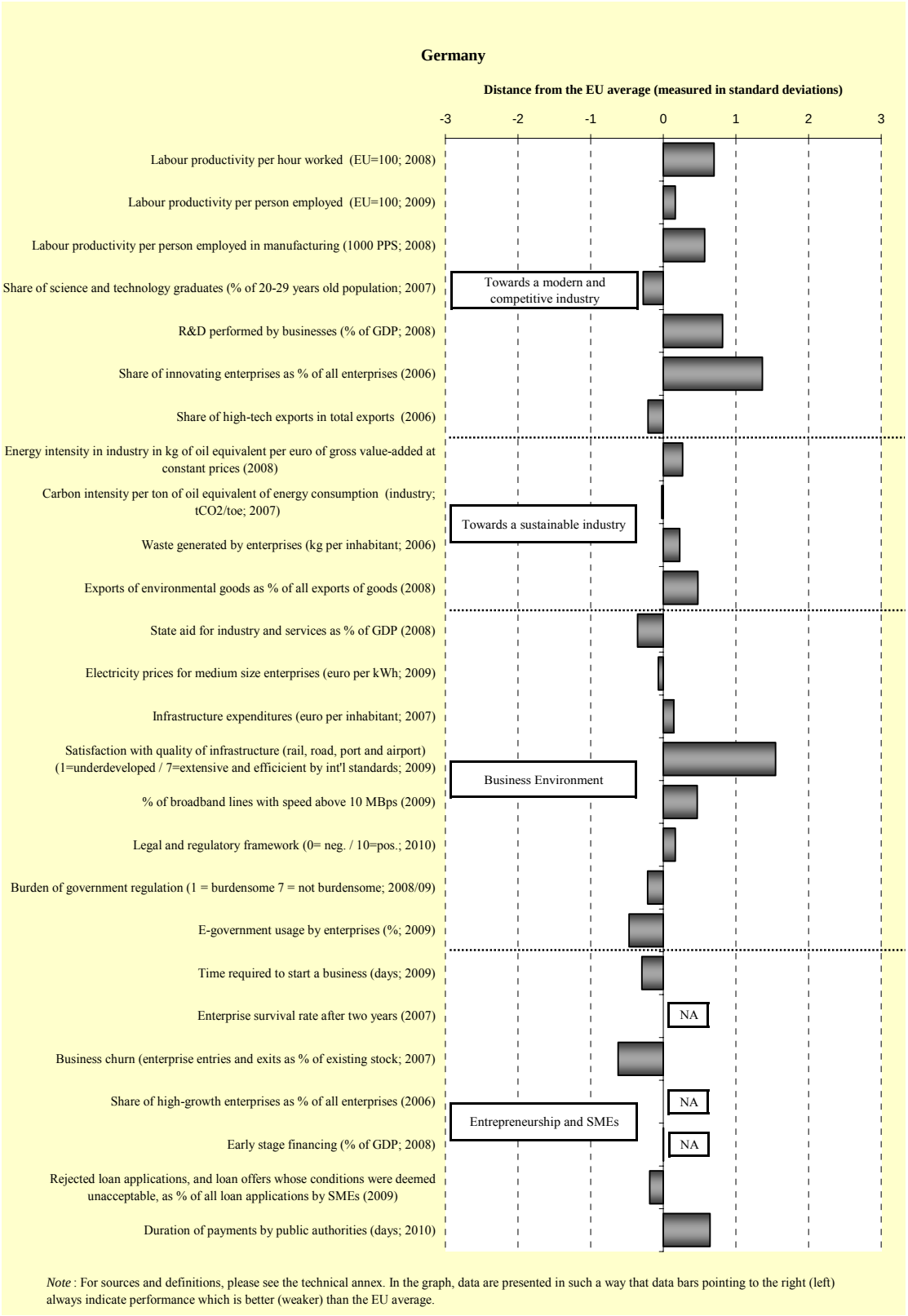
3.4.7. Conclusions

Apart from the short-term concerns related to the financial crisis, such as unfavourable bank loan conditions, the main challenges facing the Danish industry are the low shares of innovating enterprises, high-tech exports and high-growth enterprises. Despite impressive efforts to increase R&D and innovation, the results in terms of the variables mentioned above are below EU average. The limited innovation performance is partly due to weak competition especially in the services sector.

Further policy actions aiming at fostering competition could also spur innovation and increase the share of innovating enterprises. An especially important area is the services sector where there are a large number of SMEs who would benefit from more competitive service markets. Policies addressing the increasing shortage of science graduates could lower the risk of future lower R&D and high-growth firms.

3.5. Germany

3.5.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.5.2. Introduction[26]

Germany's labour productivity, measured either per hour worked or per person employed, is clearly above the EU average. Germany is one of the very few EU members where the real effective exchange rate depreciated between 1999 and 2009, indicating increased price and cost competitiveness. Concomitantly, nominal unit labour costs in German manufacturing first declined somewhat and then increased again, resulting in an overall increase of 7%, thus 12 percentage points below the EU average of 19%. The overall high competiveness (driven by productivity, price and cost, quality and specialisation factors) is reflected in the high surplus in the trade of goods.

Germany is increasingly specialised in high-intermediate and low skill sectors. While the importance of high skill sectors has remained constant from 1997 to 2007, low-intermediate skill sectors are clearly losing ground. Germany is specialised in medium high technology, whereas specialisation in high technology has decreased significantly from 1997 to 2007. This picture is completed by a clear trend towards sectors with a growth rate above the EU average.

Manufacturing plays a much bigger role for Germany than for the EU in total (24% vs. 17% of value added in 2008). This is mainly due to specialisation on transport equipment[27], electrical and optical equipment and other machinery as well as, to a lesser extent, chemicals. In the service sector, only the (important) sector "real estate and business activities" and "other services" have an above average weight. The primary sector is much smaller than for the EU in total. Employment figures show the high level of productivity in manufacturing but also its decreasing importance over time. Forecasts until 2020 expect an increase in employment in business and other services by almost 10% while employment in manufacturing might drop by some 6%.

Germany's surplus in the trade of goods is, relative to the total volume of exports, the second-largest in the EU. The positive trade balance in manufacturing mainly resulted from surpluses in transport equipment, other machinery and chemicals while only textiles and to a lesser degree leather/footwear and refined petroleum showed a noteworthy trade deficit. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Germany in 2008 in transport equipment and other machinery.

Exit from the crisis

In the peak of the economic and financial crisis output in manufacturing dropped by almost 25%. In July 2010, output was still 10% below pre-crisis levels. In reaction to the crisis, Germany introduced a wide range of measures targeting the real economy. A car scrapping premium for private households with a total volume of EUR 5 billion ended in September 2009. Under the Temporary State aid Framework Germany set up guarantee, subsidised loans and export credit insurance programmes with a total amount of EUR 115 billion. The

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[26] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

[27] The sector transport equipment covers the manufacture of motor vehicles, shipbuilding, railway rolling stock, aerospace equipment, motorcycles and bicycles, and a residual category of other transport equipment.

programmes are operated by the Kreditanstalt für Wiederaufbau (KfW), with SMEs as major beneficiaries (EUR 90 billion). In addition, Germany temporarily introduced declining-balance depreciation rules for moveable fixed assets and a relaxation of VAT rules for small companies. The measures ensured access to finance. Nevertheless, credit conditions temporarily tightened and the availability of private equity clearly declined since the beginning of the crisis. In combination with a rising demand for financing in the face of economic recovery and a parallel downgrade in many companies' ratings based on their 2009 business figures, this might lead to increasing rejection rates. However, a credit crunch has not been observed and is not to be expected. Demand for insurance cover of exports is constantly high in the absence of private supply, in particular by SMEs..

3.5.3. Towards an innovative industry

Germany has a large and diversified science and knowledge base. It belongs to those world nations with the biggest research and development (R&D) capital stock. The output of R&D and innovation activities in terms of patents, new products and high productivity is remarkable. From a global perspective, however, Germany is only at the lower end of leading countries in terms of innovation performance. The availability of new science and technology graduates is below EU average.

Education and knowledge is the only area that has got increased budget allocations between 2007 and 2010 and which was not subject to budgetary cuts in the context of the budgetary consolidation package of the Federal Government presented in June 2010. Relevant policy developments to support innovation are notably taking place under the continued implementation of the "High-Tech Strategy", which is an overarching strategy to boost research and innovation until 2011 and focuses on 17 thematic areas. This includes the implementation of nine innovation alliances which constitute publicly supported strategic cooperation between industry and public research in key technology areas and lead markets (e.g. in the areas of ICT, mobility and climate protection). They have mobilised EUR 3 billion in private resources. The strategy also comprises the Top Cluster Programme which funds regional thematic clusters that bring together public research and enterprises to further develop high technologies in various areas. Finally, the strategy covers SME funding via the Central Innovation Programme for SMEs (ZIM), totalling EUR 2.4 billion for 2009 and 2010, and the programme Innovative SMEs which attempts to ease the access of SMEs to thematic R&D programmes by simplifying and accelerating application procedures. A renewed "High-Tech Strategy 2020" has been published in July 2010. Continuing the initiatives mentioned above, there will be stronger emphasis on the "major societal challenges", i.e. climate, health, mobility, security und communication. The Federal Government decided to invest an additional EUR 12 billion in education and R&D until 2013.

In the short-term, the main challenge will be to ensure the financing of innovation in the context of tight and potentially further tightening credit conditions. A timely limited and in substance restricted (e.g. to SMEs) continuation of the "*Wirtschaftsfonds Deutschland*" could constitute a remedy in this respect.

In the long-term, the main challenge is to avoid the shortage of high-skilled labour force in the context of the demographical challenge of the country (low birth rates and ageing society) and its relative low availability of new science and technology graduates. Germany's initiatives in this respect, such as the "*Exzellenzinitiative*" of the universities, go into the right direction, but might be complemented by further measures, if evaluations show that they do not suffice.

3.5.4. Towards a sustainable industry

The environmental performances of Germany's industry can be characterised as good. The energy intensity in manufacturing is below the EU average. The carbon intensity in the non-energy supplying industry is close to EU average and in terms of waste generated by enterprises and exports of environmental goods Germany scores better than the EU average. Additionally, the support to environmentally friendly technologies has been a focus of both Germany's structural reform agenda and its economic recovery packages.

Public funds for improving energy efficiency of buildings have been significantly increased (by ca. EUR 3 billion) in the period 2009-2011. As part of its comprehensive "*Integrated Energy and Climate Programme*", Germany is inter alia implementing: a support programme "Special Fund for Energy Efficiency in SMEs", covering up to 80% of costs for SMEs to receive professional advice in the area of energy efficiency and offering low-interest loans from the KfW to implement the recommended measures; an energy efficiency export initiative; the Eco-Design Directive for 19 product groups; various measures to implement Directive 2006/32/EC of 5 April 2006 on energy end-use efficiency and energy services; a funding programme for micro combined heat power plants; funding programme for commercial refrigeration systems; a national "Electric Mobility" development plan. Importantly, this energy and climate programme also includes the implementation of the "*Renewable Energy Law"*, whose aim is to contribute to the target of at least 30% electricity from renewable energy sources by 2020. The renewable energy law, amended in 2010, regulates the feed-in tariffs to be paid by network providers to producers of renewable energy. These tariffs are differentiated by type of renewable energy. The law also stipulates the tariffs for renewable energy which can be passed on to the final customers. In view of significant efficiency improvements of photovoltaic appliances, the recent amendment stipulates significant reductions in the level of the degressive feed-in tariffs for appliances with commissioning dates after June 2010, which will further decrease, if the market volume of photovoltaic electricity exceeds a certain threshold. However, since the feed-in tariffs for both old and new appliances are significantly above the average electricity prices and the photovoltaic electricity which is not inserted into electricity networks but directly used by households or small enterprises with photovoltaic appliances is similarly subsidised (via a "*Direktverbrauchsvergütung"*), the current contribution of final customers to financing photovoltaic electricity is significant and likely to increase. It is also noteworthy that the 2010 amendment of the "*Renewable Energy Law"* includes reduced renewable energy tariffs for electricity intensive enterprises and railway companies. The entire support system for renewable energy will be reviewed in the context of the next amendment of the law, foreseen for 2012.

Germany's interregional and international energy grids need to be developed to allow a wide distribution of energy produced with renewable sources. Several regulatory and non-regulatory measures, such as the "*Energieleitungsausbaugesetz*", are addressing this issue. An effective implementation is required to ensure the intended progress. Given the high importance of the automotive sector for Germany, progress regarding the promotion of electric mobility (which needs to be coupled with the use of renewable energy in order to have a significant positive environmental impact) will be crucial for the competitiveness of its industry.

3.5.5. The business environment

The quality of Germany's business environment is altogether average. It scores clearly above the EU average concerning the satisfaction with the quality of infrastructure and around average regarding the regulatory framework and administrative burden. The German public procurement system is still complex and lacks transparency. The degree of competition in services is relatively low, especially with regard to the energy market and regulated services including crafts. The current federal policy on Better Regulation is structured around the "Bureaucracy Reduction and Better Regulation Programme of the federal government" adopted in 2006 whose flagship initiatives are the programme to reduce administrative burdens for businesses and a range of initiatives to take forward eGovernment. In June 2010, the German government submitted an implementation plan listing the measures under way or planned for reaching the 25% net reduction target of administrative costs stemming from information obligations by the end of 2011. A full baseline measurement on information obligations embedded in federal legislation was carried out in September 2006, revealing administrative costs to business in Germany amounting to EUR 48 billion, out of which EUR 25 billion would result from EU legislation and EUR 23 billion from national legislation. A net reduction of more than EUR 6 billion has already been achieved so far. In this respect, the "*Drittes Mittelstandsentlastungsgesetz*", in force since March 2009, includes 23 measures reducing administrative burdens notably for SMEs, such as regarding statistical reporting. Furthermore, in selected legal fields and "areas of life", the total measurable effort necessary for fulfilling administrative requirements, i.e. the compliance costs, will be taken into account and additional possibilities for reducing this overall effort shall be identified. It is also intended to examine the total measurable effort of all new federal legislation. Other recent developments include pilot projects of the *Länder* to introduce the Standard Cost Model, which would also cover regulatory costs for citizens.

Ex ante impact assessments are mandatory for initiatives of the federal government, not for those emanating from *Bundestag* or *Bundesrat*, but the latter would rather be exceptions. The *Länder* use increasingly impact assessments. An SME specific impact assessment as part of the general impact assessment is foreseen at the federal level, to be verified together with the stakeholders and the Ministry of Economy (BMWi). The BMWi has also issued a supporting 'check list' that shall help federal ministries in their assessment of costs to business and prices. The *Länder* and local levels which have legal competency in many policy areas are not bound by these developments.

Public consultation by the federal government is formally regulated by the *Joint Rules of Procedures* which specifies that ministries must consult early with an extensive range of stakeholders, but there are no binding rules at federal level beyond the common rules of the *GGO*. Consultations take place in so-called *"Arbeitskreise"* (working groups) composed of representatives of the Ministries and stakeholders. Informal pre-consultation rounds involving the *Länder*, municipalities and associations are conducted at an early stage in the regulatory process. E-consultation, seen as a tool to increase the transparency of the decision-making process, is at an early stage of implementation.

Germany has a comprehensive eGovernment programme, which is evolving towards the new Web 2.0 for eParticipation and administrative innovation. The national eProcurement platform is not mandatory.

Given the *Länder* competencies, a federal unique one-stop-shop cannot be envisaged, but some *Länder,* such as North Rhine Westphalia and Rhineland Palatinate are front-runners in

setting up regional one-stop-shops. There is also a project to ensure that data from companies are pooled to be used at all public authority levels (federal, regional and local). The project to pool data from employees in order to reduce admin burden for employers (ELENA) has been frozen due to data security reasons. *Länder* have also set up points of single contact (PSC) for the Services Directive.

The company law governing private limited companies was revised in 2008 to simplify registration procedures for start-ups and create a new legal form called "*haftungsbeschränkte Unternehmergesellschaft (UG)*" for very low budget start-ups.

Some measures have been undertaken to strengthen competition in regulated trades and services (specifically regarding tax advisers, notaries and lawyers). In the area of public procurement the government has announced that it will present in 2010 a draft law to make the public procurement system more transparent and simple. Given that such reform attempts were to a large extent postponed in the course of the last years, a reform backlog in this area can be noticed, despite some revisions of the system in 2009. For energy networks, the comprehensive incentive regulation (*Anreizregulierung*) has been completely implemented in early 2009. By imposing to all network providers individual revenue caps which are geared to the most cost efficient provider, and by reducing gradually these caps (sectoral productivity growth: requirements to enhance efficiency), the regulation provides for each provider the incentive to reduce the costs and fees of its network.

While regulation has strengthened competition in energy networks, the production and provision of energy at regional level still characterised by oligopolies or monopolies. It is the task of the competition authority to monitor closely the situation and to intervene in case of potential market abuse. The increasing interregional interconnection might improve competition in the future. In the area of railway transport and infrastructure, various bottlenecks to competition persist, as analysed by the *Monopolkommission* in September 2009. Further progress could also be achieved in the area of regulated trades and services.

3.5.6. Entrepreneurship and SME policy

SMEs in Germany tend to be, comparatively, large: the shares of small and medium-sized enterprises in the total number are approximately twice the European averages while the contribution of micro firms to employment is in Germany lower than the European average (19% vs.30%). German SMEs score well as regards innovation activities; the share of SMEs with innovation activities in general is for instance significantly higher than on average in the EU. In the area of skills, however, the results are more mixed, as indicated by the relatively low share of SME staff that has tertiary education. In 2010 the Federal Ministry of Economics and Technology launched a start-up initiative "*Gründerland Deutschland*" with several programmes and activities. The aim is to raise awareness of entrepreneurship and self-employment throughout Germany. The "*German Entrepreneurship Week*" in November 2010 shall spur the entrepreneurial spirit of pupils, apprentices, students and young adults. Furthermore, the initiative "*Entrepreneurial spirit in schools*" led by the Federal Ministry of Economics and Technology shall be extended. Finally, a new excellence competition for universities in Germany is launched: the three universities with the best concept for a strategy fostering entrepreneurship culture throughout the university will receive money for developing the strategy and win the title "*Die Gründerhochschule*".

Since 2007, the federal government has supported financially young entrepreneurs with up to EUR 4,500 for consulting on organisational, financial or management aspects within the first

five years after the start-up. The programme has an overall budget of EUR 260 million until 2013. It has comprised since 2008 a special support for start-ups by formerly unemployed persons. Private pension provisions of self-employed have been benefiting since 2007 from the same protection as those of employees against garnishment. The inheritance tax rates were reduced in 2009 and 2010 in order to facilitate the transfer of businesses, if the aggregated wage sum of the business remains unchanged for seven years. Other deductions apply in further specified cases.

A new law (Arbeitsmigrationssteuerungsgesetz) which eases the access of highly qualified migrants from non-EU countries by lowering the required minimum investments for entrepreneurs seeking residence permit entered in force in January 2009.

The main challenges are in the short- and medium-term to secure access to finance and in the long-term to avoid a shortage of high-skilled labour.

3.5.7. Conclusions

Germany's economy and industry is highly competitive and benefits from framework conditions which are conducive to R&D and innovation and to the deployment of environmental technologies. The business environment is overall also favourable for entrepreneurial activities. There remain some weaknesses though, such as the framework for competition in services (such as railways) and the need to overhaul public procurement. Over the long term, the main risk is to face a lack of qualified labour if the education system is not adapted rapidly enough to changing requirements of technology and innovation.

3.6. Estonia

3.6.1. Indicators graph

Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.6.2. Introduction[28]

Estonia's labour productivity was, measured both per hour and per person, very much below the EU average in 2005 and 2008/2009. However, it showed a slight increase over time, both per hour and per person. Estonia is one of the EU members with the highest appreciation of the real effective exchange rate between 2009 and 1999, indicating a significantly decreased competitiveness. In parallel, nominal unit labour costs in Estonian manufacturing increased by 44% between 2000 and 2009 with a remarkable acceleration during the second half of the decade. As a result, the overall increase was more than twice the EU average of 19%.

Manufacturing plays for Estonia as a big role as it does for the EU in total (17% in 2008). Even though decreasingly, Estonia is still specialised in sectors demanding low skills and, increasingly in low-intermediate skill sectors. This picture is confirmed by an increased specialisation on sectors with low and medium-low technology intensity.

Compared to the EU, the manufacturing sector is particularly specialised on wood and wood products and textile and clothing. In the service sector, electricity, gas and water supply, construction, wholesale and retail and transport and communication had an above average weight in 2008. The primary sector, fishing in particular, is more important than for the EU in total. Employment figures show a decreasing importance over time of the primary sector and a clear change towards the service sector. Forecasts until 2020 expect an increase in employment in business and other services (16%), in distribution and transport (12%) as well as in manufacturing (20%), while a continued clear decline in the primary sector (-30%) is expected.

Estonia showed a deficit in the trade of goods in 2009. The negative trade balance in manufacturing mainly resulted from deficits in refined petroleum and chemicals, while only wood and wood products showed a noteworthy trade surplus. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Estonia in 2008 in wood and wood products, refined petroleum and textiles and clothing.

Exit from the crisis

Estonia saw the biggest reduction of manufacturing output in the European Union. It fell by over 38% in the course of the crisis. Production increased to 81% of pre-crisis level in July 2010. Estonia implemented a *de minimis* aid scheme under the Temporary State aid Framework. The scheme provided loans and guarantees to SME in the manufacturing sector. Other existing state aid instruments were also used to tackle the effects of the economic and financial crisis. The situation on the financial markets will continue to be difficult during 2010 and micro enterprises are particularly affected. Most vulnerable sectors during the crisis are transport, textiles and timber.

The key recovery measures focus on lending support and loan guarantees to enterprises in particular to exporting companies. These measures amounted to approximately EUR 390 million (2.8% of GDP), with only EUR 109 million of state co-financing. These measures are, however, neutral in terms of short-term budgetary impact.

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[28] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

The objective of the programme is to support exporting companies as well as the innovation and growth capacity of enterprises. Depending on the type of support considered, the measures are directed at small, medium or large enterprises. Loans and guarantees are issued for a maximum period of 3-5 years. The issuing period covers the years 2009-2010 only. However, the total duration of the programme depends on the actual rhythm of the loans servicing and repayments. The limit to the issuing period (end-2010) constitutes an implicit sunset clause and broadly corresponds to the expected resumption in private lending activity. Moreover, a new state-owned insurance company, whose role is to provide credit insurance as a guarantee for exports became operational in July 2010 ensuring further support to exporting companies.

3.6.3. Towards an innovative industry

Since 2007, Estonia has been catching up to the EU27 average in terms of innovation performance. Estonia displayed also extraordinary progress over several years in increasing total expenditure on R&D in relation to GDP, reaching 1.14% at the onset of the crisis. However, the crisis is likely to lead to more effort being put into solving the underlying structural problems in the Estonian innovation system, in particular the low productivity in the manufacturing industry. As a consequence of the end of the real-estate boom, it can also be expected that various types of non-R&D related investments in finance and real estate will lose some attraction thereby allowing a window of opportunity for renewed interest in R&D in high-tech and medium-high-tech investments.

One of the largest innovation support measure so far was renewed, namely the funding of Competence Centres in health, food, electronics, ICT, and nanotechnology. It nevertheless remains a great challenge to maintain the high level of R&D and Innovation expenditure that was scheduled in the national reform programme for the period 2008-2010 including the important investment programme to update the infrastructure of research and development institutions.

Notwithstanding the fact that public support for innovation in Estonia has corresponded rather well with the main identified bottlenecks in the Estonian innovation system, a number of bottlenecks remain: (a) below-average productivity of industry; (b) the difficulties in developing smooth cooperation between business and academia; (c) Strengthening the export position of Estonian producers of knowledge-intensive goods and services.

3.6.4. Towards a sustainable industry

Estonia is doing relatively well in terms of renewable energy provision. The energy intensity of the industry remains high. Moreover, there is still a considerable environmental burden from Estonian energy production because the energy is mostly produced on the basis of fossil fuels, i.e. oil shale.

In 2009, the Government has in cooperation with the Parliament strengthened the policy to support energy efficiency and renewable energy use. The Government has initiated the preparations for an action plan for renewable energy. In the next years, the Government plans to design a broader policy of green growth of the economy. In addition to energy efficiency and renewable energy, an important part of it will be improving the environmental technology innovation. An Energy and Climate Agency has been established to improve the co-ordination of the energy saving and renewable energy programmes and to provide options for additional measures.

It can be concluded that energy efficiency and the sustainability of energy provision in particular the production of electricity through oil shale remain important challenges. The potential for improving energy efficiency has not been utilised in Estonia. Increasing energy efficiency is not only likely to have a positive impact on inflation but also on the environment and on the security of energy supply.

3.6.5. The business environment

Estonia scores clearly above the EU average in most indicator categories presented in the indicator graph. In particular, the legal and regulatory framework and the burden of government regulation appear as good. However, the country scores slightly below EU average concerning infrastructure expenditures and the satisfaction with the quality of infrastructure.

Since 2007, Estonia has been working on a better regulation programme consisting of two parts: codification (administrative burden reduction and simplification) and effective structures (impact assessment framework). An overarching better regulation strategy combining these two factors has been developed The simplification programme, scheduled to last until 2013, included four main sectors over the period 2007-2009: environmental law, construction law, social law, permits and licences. In order to reduce the administrative burden for businesses further, these four sectors have been screened in order to identify the most burdensome obligations. A database is currently developed to centralise information related to the administrative burden in Estonian regulations.

Ex ante impact assessment is a relatively new policy in Estonia, and still work in progress. The reform of the ex ante impact assessment system conducted in 2009 extended the scope of impact assessments to aspects of policy analysis beyond budgeting, including economic, social and environmental impacts. Usage by enterprises of eGovernment services is above the EU average and one of the highest in Central and Eastern Europe. Estonia has a national eProcurement platform mandatory for the publication of contract notices and contract award notices. The one-stop-shop to start-up a company is fully operational and further developments to facilitate business activities include e-invoicing in order to accelerate the payment procedure.

As shown by the indicator on infrastructure investment, the Estonian business environment would benefit from more investments oriented towards the mobility of goods and factors. A renewed focus on public infrastructure (transport and information technologies) with the support of EU structural funds), both cross-border and internal, would contribute to investment, product and labour mobility within Estonia and the EU.

Indicators show that Estonia performs relatively well in terms of regulatory framework and the burden of government regulation. However, there remains an important challenge in terms of infrastructure investment both in terms of quantity and quality.

3.6.6. Entrepreneurship and SME policy

Estonia's SME sector is characterised by marked differences from the EU as a whole. Estonia scores clearly above the EU average concerning time required to start a business, the business churn, the share of high-growth enterprises and the payment duration by public authorities. However, it scores clearly below the EU average concerning bank loan conditions deemed acceptable by companies and concerning the enterprise survival rate after two years.

In 2009, a concept for fostering entrepreneurship education in higher education was developed which is now under discussion. EU Structural Funds are used to foster entrepreneurship among Estonians, for instance via the 'SPIRIT' programme which includes an entrepreneurship award, entrepreneurship week and a competition of business ideas among young people.

Regarding the SME-friendly business environment, the so-called Reorganisation Act should make the winding-up of non fraudulent businesses possible in 3-4 months and so companies in financially difficult situation could restart their activities. As an extra-ordinary recovery measure, Estonia devised a support package for exporting companies (see also above) which mainly targets SMEs. The main elements of the measure consist in offering lending support and loan guarantees.

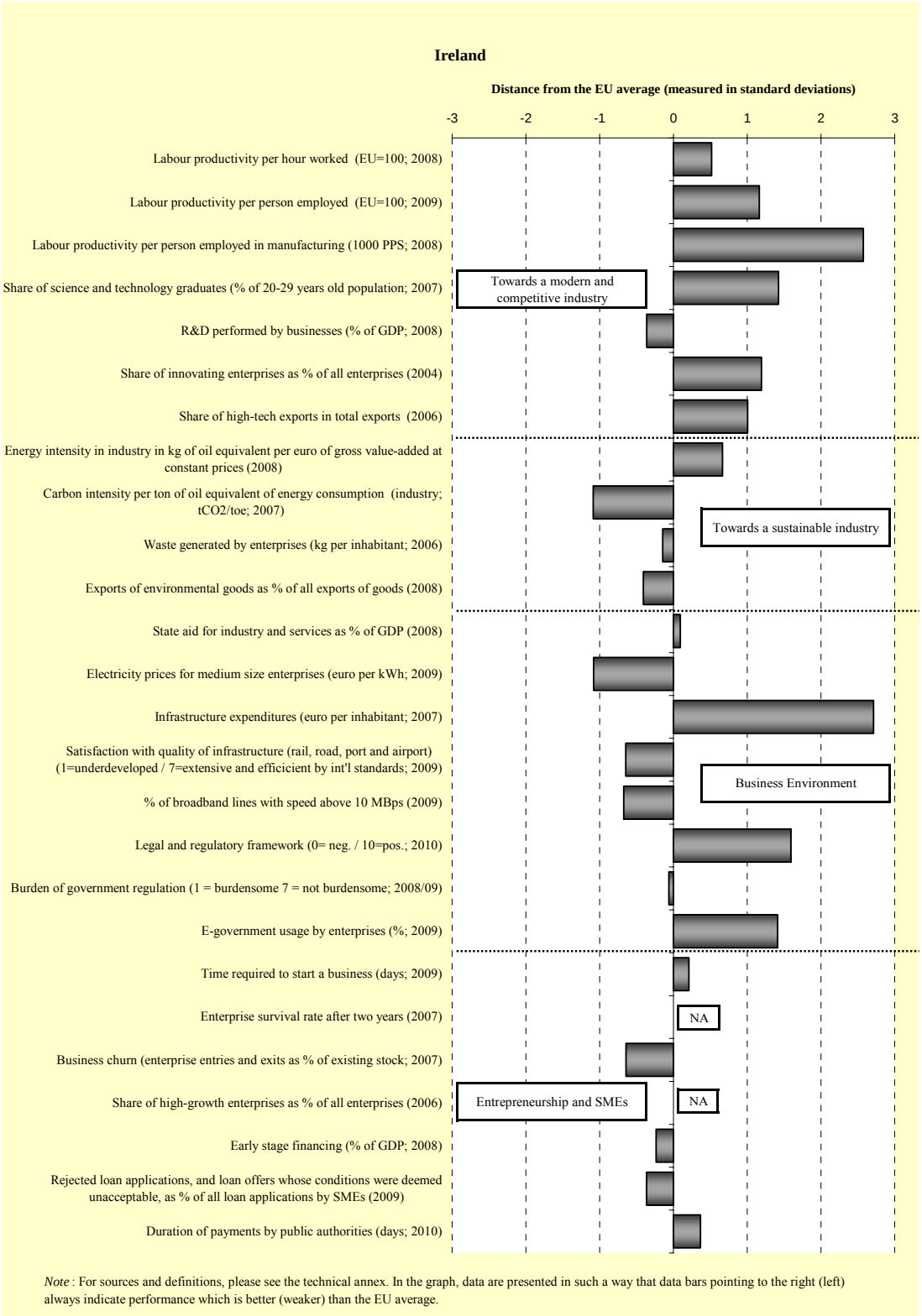
The immediate challenge for the business sector and in particular SMEs is to overcome the crisis. The export support package can play an important role in this regard. Labour skills could be improved through skill-matching, training and qualification. The introduction of entrepreneurship education in higher education without further delay would also be an important step.

3.6.7. Conclusions

Estonia has been considerably affected by the crisis with the biggest reduction of manufacturing output in the European Union. As wage growth outpaced productivity growth, competitiveness eroded resulting in increasing trade deficits. After a period of overinvestment in booming sectors such as construction and real estate, resources need to be reallocated towards the tradable goods sectors. In order to increase productivity, labour skills need to be improved and productive investments to be ensured including in R&D and innovation. While the business environment is relatively good, infrastructure investments oriented towards mobility of goods and factors will further improve the business environment and support growth. Energy efficiency and the sustainability of energy provision remain important challenges.

3.7. Ireland

3.7.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.7.2. Introduction[29]

Ireland's labour productivity was, measured both per hour and per person, constantly above the EU average in 2005 and 2008/2009. Ireland's overall price competitiveness has been deteriorating during the last decade, as reflected by the significant appreciation of the real effective exchange rate, thereby contributing to an increasing current account deficit. This was mainly due to strong wage increases, which not only fuelled consumption, but led also to one of the strongest increases in unit labour costs in the euro zone since concurrent overinvestment in non-productive housing resulted in a marked decline in productivity growth.

Nominal unit labour costs in Irish manufacturing declined slightly between 2000 and 2009, resulting in a more than 20 percentage point gap compared to the EU average increase of 19% but by and large in line with developments in other major export-oriented countries of the euro zone. As a result, the relative position of Irish manufacturing has not changed markedly in this respect.

Net exports of goods are positive and so the current account deficit is largely driven by high outflows of investment income and, to a lesser extent, by negative net services exports. The services deficit is somewhat lower now than in the early 2000s, but whether this reflects already a successful shift towards stronger services exports remains to be seen.

Going forward, wage moderation in the private and the public sector has already contributed to improving Ireland's price competitiveness in 2009 and is expected to continue doing so in 2010. This suggests that the current account deficit is likely to improve although much depends on the global and European economic context. In fact, from its peak at just above 5% of GDP in 2007, the deficit has already narrowed to some 3% of GDP in 2009, mainly due to a strong decline of imports.

Ireland shows no clear specialisation with regard to skills intensity. The importance of low-skill sectors has decreased from 1997 to 2007. There is a high degree of specialisation in sectors with high technology and low technology intensity. Moreover, Ireland tends to specialise in sectors with a high growth rate compared to the EU average. Nevertheless, low growth sectors continue to play an important role.

Manufacturing plays a bigger role for Ireland than for the EU in total (22% vs. 17% of value added in 2008), although the share has been declining since the mid 1990s. Compared to the EU average, the manufacturing sector is particularly specialised in chemicals, electrical and optical equipment and pulp, paper and publishing. In the service sector, only financial intermediation and construction show a clear above average weight, although the latter was clearly driven by the housing boom and is therefore likely to decline. Employment figures confirm the relevance of the manufacturing sector, but also its decreasing importance over time.

Ireland's surplus in the trade of goods is, relative to the total volume of goods exports, the largest in the EU. The positive trade balance in manufacturing mainly resulted from a very high surplus in the chemicals sector and, to a lesser extent, in electrical and optical equipment,

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[29] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

with food, drinks and tobacco also showing a strong surplus. Transport equipment and other manufacturing are the sectors with the most noteworthy trade deficit. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Ireland in 2008 in chemicals, electrical and optical equipment and food, drinks and tobacco.

Exit from the crisis

Ireland has faced a reduction of manufacturing production of up to 24% during the crisis. Up to July 2010 output regained to 100% of pre-crisis level.

Due to budget constraints, the response to the crisis was mainly geared towards mitigating its effects on companies' access to finance and facilitating structural change. Thus Ireland put in place two schemes to help companies in difficulties as a result of the economic and financial crisis – the Enterprise Stabilisation Fund (ESF) to ease financing constraints of viable but vulnerable companies in the manufacturing and internationally traded services sectors, and the Employment Subsidy Scheme (ESS) to support restructuring measures with a budget of EUR 100 million and EUR 133 million respectively.

In the longer run, the main challenge for Ireland is to return to a balanced growth path and to pursue a sustainable growth and development strategy, which takes account of the changing circumstances under which the Irish economy is likely to operate. This implies in particular that resources, which until recently have been tied up in construction, have to be reallocated to other sectors of the economy or to the upgrading of the existing housing stock rather than to its extension.

3.7.3. Towards an innovative industry

With the labour-cost advantage of traditional Irish exports diminishing, Ireland is committed to use R&D and innovation as key drivers of future economic growth for both manufacturing and services. The aim is in particular to improve the competitiveness of indigenous enterprises and to attract new knowledge intensive investment. Ireland's innovation performance has already been increasing fastest within the group of Innovation Followers, i.e. countries with innovation performance above that of the EU-27 average but below those of the innovation leaders. A key task in the years to come is therefore to further upgrade Ireland's innovation record.

The Irish government recognizes the importance of innovation in services for export growth and has therefore proposed further actions in its Services Strategy to ensure the continued development of the services sector. These actions include integrated inter-disciplinary education for service activities, dedicated business support measure to promote R&D and the use of public procurement to stimulate innovation in services.

Concrete measures have also been taken to further promote R&D and innovation in general. Together with the tax exemption for small start-up companies, the R&D Tax Credit has been increased to boost R&D and innovation expenditures. The latter had already contributed to fostering R&D in the past and thus is likely to have similar effects now.

Among the main challenges for the Irish innovation system is the higher education sector. The sector has received significant research funds since the year 2000. The focus must now be on the deliverables from this investment while maintaining adequate funding levels in the future.

Another important challenge is to help medium-sized indigenous companies to increase their financial and managerial capacity to innovate and undertake R&D. On top of the aforementioned tax measures, a key element in this regard would be to promote closer cooperation with third-level institutions.

3.7.4. Towards a sustainable industry

The environmental performance of the Irish industry is broadly in line with EU trends. If anything, energy intensity is somewhat lower than on average in the EU. The relatively low share of environmental goods in total goods exports indicates though that Ireland does not yet fully benefit from the emergence of green markets.

Moreover, buoyant economic growth has led to significantly increasing CO_2 emissions, in particular from transport, and the existing housing stock often suffers from poor thermal efficiency. These challenges do not affect industry as such, but they provide an opportunity to mitigate the necessary reallocation of resources from the construction sector through sustained investment in transport infrastructure, to provide new markets for domestic appliances and building materials, and thus, to help achieving a more balanced growth path.

Ireland has taken a number of policy measures and initiative to improve sustainability and to foster the development of a genuine environmental products and services sector. The Environment and Green Technologies Department of Enterprise Ireland offers a GreenTech Support scheme to its clients, particularly in the SME sector. The scheme is designed to help these companies take advantage of the opportunities presented by integrating environmental sustainability into their business. Enterprise Ireland has a Cleantech Department dedicated to business in this sector. It supports Irish companies to capitalise on the economic opportunities arising in the Environmental Products and Services sector. The Dublin Airport Authority is pursuing the establishment of a specialist 'Cleantech Incubation Facility' at the airport. It is intended to house up to 20 high potential start-ups' in a concentrated environment allowing research synergies, shared services and access to trade services to take place. The re-capitalised banks have given a commitment to increasing their lending capacity to SMEs by 10% and have established a EUR 100 million Environmental and Clean Energy Innovation fund. Capital allowances of 100% of the cost are available as of 2009 to those companies investing in high energy-efficient equipment. The Home Energy Savings Scheme provides grants of up to 30% of the cost of retro-fitting insulation and other energy efficiency measures to housing stock built before 2006. The measure is likely to help the construction sector to reallocate resources towards more sustainable purposes. The National Action Plan on Green Public Procurement which is currently subject to public consultation aims to harness public procurement to move the market in favour of eco-efficient goods and services.

The main issue for Ireland in the years to come is to grasp the opportunities a comprehensive greening of the economy is likely to offer. Existing initiatives in this context will bear all the more fruit if efforts to strengthen R&D and innovation do not run in parallel but are also harnessed to foster sustainability.

3.7.5. The business environment

Ireland is generally perceived as one of the most attractive business locations. For instance, it ranks 7th in the World Bank's Doing Business index, in Europe surpassed only by Denmark and the UK. Together with being an English-language location and due to historically close

ties with the US, these factors have contributed to attracting a considerable amount of overseas FDI.

Going more into detail, Ireland scores significantly above the EU average concerning infrastructure expenditures and clearly above average concerning the legal and regulatory framework and e-government usage by enterprises. However, Ireland still scores below the EU average concerning satisfaction with the quality of infrastructure and the availability of high-speed broadband lines. Electricity prices for medium size enterprises are equally a matter of concern.

Ireland has taken a number of policy measures to further improve the business environment. The government has initiated in 2010 the construction of a smart broadband network called the Exemplar Network that makes use of multiple colours of fibre to dramatically boost the speed of fibre-based communications. The ambitious Transport 21 programme is currently being implemented and foresees major investment projects for all transport modes, although the budgetary situation led to some reassessment of investment priorities. Transport 21 is complemented by Ireland's new transport policy, which contains ambitious targets with respect to modal shift, fuel efficiency and planning. As regards simplification, several major consolidation projects have been initiated in recent years in sectors such as Land Law, Planning Law, Health and Safety and Company Law. The five main areas of regulation identified as the most burdensome for business are taxation, statistical returns, environmental regulation, health and safety regulation, and employment and company law. Revised guidelines for Regulatory Impact Analyses (RIAs) were published by the government in June 2009. They include guidance on the measurement of potential administrative and compliance costs, especially on entrepreneurship and on enterprise development.

In particular infrastructure development did not always keep pace with high growth in recent years and may therefore lead to bottlenecks once growth picks up again. Against this background, the relatively high level of infrastructure expenditures for both transport and communications must be seen as an attempt to compensate for insufficient outlays in the past. It is essential therefore that infrastructure investment in real terms is maintained at an adequate level.

As to electricity prices for medium size enterprises, their current level is a drag on Ireland’s attractiveness as the domicile of choice for investment. Further action appears therefore necessary to foster competition among suppliers with a view to reduce prices to the level encountered in other countries.

3.7.6. Entrepreneurship and SME policy

The economic significance of SMEs in Ireland is broadly in line with the European average. In terms of employment, the contribution of SMEs is slightly higher than the European average (69% instead of 67%) whereas in terms of value-added the share of SMEs is somewhat lower than the European average (52% instead of 58%).

The economic crisis had a measurable impact on business creation. Numbers for 2009 showed a 9% decrease when compared to 2008, a year which had already witnessed a decrease of 21%.

In terms of the specific framework conditions for SMEs, Ireland scores slightly above the EU average for the payment duration by public authorities. Nevertheless, there is mounting

criticism from businesses complaining about lengthening payment periods. As to financing, Ireland scores slightly below average concerning the rate of business bank loan demands rejected by banks or bank loan offers to companies that were rejected by the latter. As a consequence of the economic and financial crisis, however, there is now even more widespread concern about access to finance.

Ireland has taken a number of policy measures which are of particular relevance for entrepreneurship and SMEs and which also address some of the aforementioned issues. As part of the anti-crisis measures, the government has announced that the payment period by central government departments to their business suppliers is to be reduced from 30 to 15 calendar days. However, to date, no concrete action has been identified. A credit review system has been set up to ensure that SMEs, sole traders and farm enterprises will have recourse to an independent, external review of bank's credit refusal decisions. A new pilot initiative called 'Going for Growth' develops training for female entrepreneurs. A 3 year corporate tax and capital exemption for start-up companies was introduced in 2009 and has been extended in 2010. New guidelines for public procurement are currently in the implementation phase. They aim to encourage greater SME participation in tendering for public contracts. A nation-wide one-stop shop allowing entrepreneurs to carry out all the necessary procedures – including registration, tax, VAT and social security – at once and at one administrative point had been announced for December 2009 but is not yet fully functional.

Ireland does not face major challenges with respect to entrepreneurship and SME policies. However, to facilitate business creation and growth once economic growth picks up again, a timely and comprehensive implementation of the broad range of initiatives and measures which are currently on the agenda would be helpful.

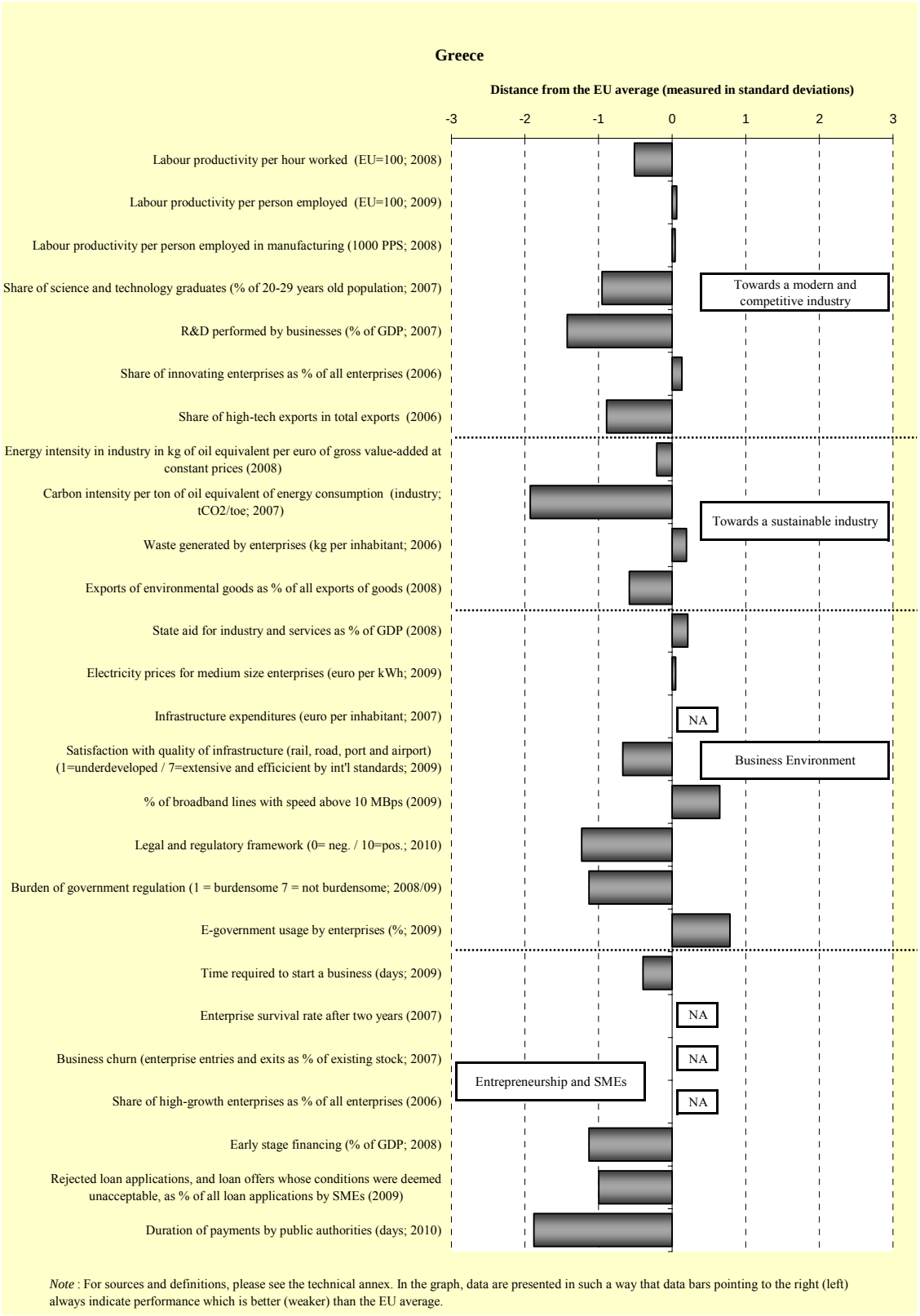
3.7.7. Conclusions

The main challenge for Ireland is to return to a balanced growth path and to restore the competitiveness of its export sector where this had deteriorated in recent years. At the same time, the undisputed need to consolidate public finances necessitates a careful review of spending and taxation priorities with a view to avoid the emergence of future bottlenecks to growth, in particular with regard to infrastructure.

Ireland's efforts to shift growth from traditional labour cost-driven FDI and, more recently, construction to more innovative sectors and services had already born some fruit before the onset of the current crisis. Recent efforts to provide incentives for more sustainable growth also go in the right direction. In addition, Ireland scores significantly above the EU average concerning many aspects of the business environment and the work force. The country is therefore relatively well-placed to overcome the crisis although some challenges remain. In particular the capacity of indigenous firms to innovate could be stepped-up further, capitalising as much as possible on the increased investment in public R&D and the development of a Green Tech sector.

3.8. Greece

3.8.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.8.2. Introduction[30]

Greece's labour productivity per person employed is slightly above the EU average, but on a per hour basis stands at around 80% of the EU average. Greece faces a serious problem of competitiveness, which is reflected in a large deficit in goods trade. While services trade is in surplus, mainly due to tourism and shipping, the deficit in goods trade has led to a current account deficit of around 11% of GDP in 2009.

The real effective exchange rate appreciated moderately over the past ten years, indicating a slight weakening in price and cost competitiveness. In parallel, nominal unit labour costs in Greek manufacturing increased by 21% between 2000 and 2009, thus 2 percentage points more than the EU average of 19%. These developments suggest that among the main determinants of the trade deficit are also non-price factors, such as quality and specialisation. However, price competitiveness may have hampered the development of the tourism sector. Overall, the increase in the current account deficit over the past decade reflects the weakness and misalignment of the productive basis at large in comparison to domestic and external demand.

Manufacturing plays a much smaller role in the Greek economy than in the EU on average (11% vs. 17% of value added in 2008). Greece is specialised in sectors demanding low skills and, increasingly, in low-intermediate skill sectors. The importance of high and high-intermediate skill sectors has remained at a low level from 1997 to 2007. This picture is confirmed by the dominance of sectors with medium-low or low technology intensity and a very limited role of higher technology sectors. In addition, Greece tends to specialise in low-growth sectors (as measured by the average growth rate within the EU).

Compared to the EU, the manufacturing sector is particularly specialised on food/drinks/tobacco and on refined petroleum. Greek manufacturing exports specialise in textiles, basic metals and chemicals with refined petroleum and food also being important exporting sectors. No manufacturing sub-sector showed a trade surplus. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Greece in 2008 in textiles and clothing, refined petroleum and food, drinks and tobacco. In the service sector, hotels and restaurants, wholesale and retail, transport and communication as well as public administration have a larger weight than EU in total. The same applies for agriculture and fishing.

Exit from the crisis

Greece entered the crisis later than the other euro area members. Manufacturing output is still in a continuous downward trend hitting -23% of pre-crisis levels in July 2010. Construction mining and quarrying, capital goods, clothing and shoes and consumer durables are hit the hardest.

Given the lack of room for fiscal manoeuvre, the Greek government did not adopt a comprehensive stimulus package in response to the economic slowdown but opted instead for targeted support for disadvantaged groups and sectors of the economy hit hardest. The Greek authorities put forward a number of temporary measures to support the sectors mostly hit by

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30 For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

the economic crisis, such as the tourism sector, automotive retailers and the construction industry. Providing loan guarantees to small and very small enterprises has been the main instrument for alleviating the impact of the crisis on the business sector and it has been used massively (more detail in SME section below). In general, there were not many recovery measures that addressed long term structural weaknesses, with the possible exception of actions taken in the area of energy efficiency.

In the memorandum of understanding (MoU) between Greece on one part and the European Commission, the European Central Bank and the International Monetary Fund on the other, which was concluded in May 2010 amidst a public finance crisis, the Greek government committed itself to a number of important reforms relating to product markets which accompany the actions relating to public finance and the labour market.

3.8.3. Towards an innovative industry

The structure of the Greek economy (specialisation in low to intermediate low skills and technology sectors in manufacturing, predominance of services and micro to small, family owned enterprises) is not conducive to a strong R&D activity. Consequently, R&D investments in relation to GDP, particularly in the private sector, are amongst the lowest in EU and the innovativeness of the Greek economy depends heavily on imported technology and know-how. It flourishes thanks to organisational and marketing innovations and very little on the production and exploitation of new knowledge. EU programmes (the Research Framework Programme and the Structural Funds) play a major role in both R&D and innovation activity in Greece.

Public financial support to R&D investments is expected to triple in the present Structural Funds programming period (2007-2013) in comparison with the previous one. The main infrastructures for innovation, such as incubators, innovation poles, clusters, etc were already created in the previous period. The following actions were launched in 2009: Innovation vouchers for SMEs (EUR 8.4 million); creation and support of new innovative and knowledge-intensive enterprises (spin-off and spin-out) (EUR 25 million); support to R&D activities of young enterprises (EUR 11.280 million); support of R&D activities of SMEs acting jointly (in groups) (EUR 23.730 million) and support to collaborative R&D projects bringing together enterprises and research institutions (EUR 76.1 million).

The law adopted in 2008 to overhaul the institutional framework governing research did not enter into force on 1.1.2009 as planned. Instead, the new government has attached R&D and innovation policy to the ministry of education, and it is likely that policy in this area will be redesigned.

In the context of the MoU, Greece committed to carry-out an in depth evaluation of all R&D and innovation actions, including in various Operational Programmes under the Structural Funds, in order to adjust the national strategy, and to create an external advisory council financed through the 7th R&D Framework Programme, to consider how to foster innovation, how to strengthen links between public research and Greek industries and the development of regional industrial clusters.

Producing new technology and transferring it to the market are both problematic. Bottlenecks are funding (R&D investments and early venture capital are too low) but also structural issues, since existing instruments do not seem to be very effective. This points to a need to improve innovation policy design and implementation, notably through evaluating and

drawing lessons from past experience. However, improving drastically the business environment would probably do more for improving innovation performance as new investments will help bring about new process and product innovation.

3.8.4. Towards a sustainable industry

On the basis of existing indicators the environmental performance of the Greek industry can be characterised as rather poor. This relates to weaknesses in the regulatory and administrative environment (inspection and enforcement, absence of land-use codes, delays in delivering environmental permits and licensing renewable energy projects) and to the absence of basic infrastructures (waste treatment facilities, but also organised industrial zones).

The main current funding instrument for environmental policy is the Operational Programme *Environment and sustainable development* with a total envelop of EUR 2550 million (EUR 1800 million Community funds and EUR 450 million national participation) over 2007-2013. Some targeted actions focusing on businesses are also funded by the OP *Competitiveness and entrepreneurship*.

The main recent initiatives in this area with direct relevance to industry are the action Green Enterprise 2010, subsidising investments of SMEs in the manufacturing sector aiming at reducing their environmental impact (total budget of EUR 30 million), the action Green Infrastructures 2010, subsidising investments of SMEs active in recycling, collection, treatment and disposal of waste and rehabilitation (total budget of EUR 30 million), preparatory actions in identifying projects for the treatment of dangerous industrial waste, and preparatory actions on the draft new development law (national scheme for investment grants) which will prioritise "green" economic activities.

At institutional level, the main developments were the passing in 2010 of the law implementing Directive 2006/32 on energy efficiency at final use and energy services, which included provisions for establishing the framework for Green Procurement, and of the law on accelerating the development of renewable energy sources against climate change. The latter law simplifies the licensing of renewable energy projects and exempts from licensing the smaller ones and adapts tariffs so as to make them attractive. Finally, the government launched a consultation to prepare the application of environmental responsibility (i.e. obligatory insurance against environmental damage).

Steps are being taken to adapt the regulatory framework and reinforce incentives towards bringing about a more sustainable industry. Timely and effective implementation, including through overhauling enforcement, will be crucial in order to improve the situation in existing enterprises and to create a viable market for eco-industries.

3.8.5. The business environment

Greece emerges from the various international benchmarking exercises as among the weakest EU countries. Also, the very low level of inward FDI bears testimony to its lack of attractiveness as a business location. In comparison with other EU or OECD countries, Greece displays a higher number of procedures and a higher cost –monetary or in time- in carrying out routine business operations while basic instruments, such as land use codes, are not operational. Moreover, slow (energy, port services) or inexistent liberalisation in some key markets (road haulage, professional services) contributes to higher costs.

The reform of the public administration has been recognised as high priority and a specific Operational Programme "Administrative Reform 2007-2013" has been set up to prepare it. Among its main objectives are the adoption of better regulation practices and cutting down administrative burden to enterprises. However, only preparatory actions have been implemented so far.

Few new developments took place in this area in 2009 due to the economic crisis and the national elections. The most significant were the privatisation of Olympic Airlines and the partial privatisation of the Piraeus port.

In the context of the MoU the government has committed itself to introducing a number of important reforms by the end of 2010 that should contribute towards improving the business environment. These include to simplify the start up of new businesses and make the General Commercial Registry (GEMI) fully operational (new law published on 17/6/2010), to simplify and accelerate the process of licensing enterprises, industrial activities and professions through legislation and by making the spatial plans operational, to introduce a fast track procedure for authorising large scale FDI projects (already in application), to liberalise road freight transport, to legislate on a Better Regulation agenda, and to reinforce the Hellenic Competition Commission.

The effective implementation of the services directive in some key sectors (horizontal legislation has already been adopted), the professional qualification directive in 2010, and the completion of the liberalisation of the domestic energy market (2010-2011) are also covered in the MoU and should contribute towards opening-up the Greek economy and increasing its efficiency. The Structural Funds also play an important role in improving and modernising network infrastructures that increase economic efficiency.

Regarding public administration, an independent review of the organisation and functioning of the central administration will be launched in 2010 to prepare future reforms. Among the actions foreseen for 2010 is the adoption through legislation of a Better Regulation agenda and unifying the public procurement system for all sectors and levels of government, together with a introducing an electronic platform supporting the use of e-auctioning.

The measures being planned address some business environment bottlenecks identified over the years in Greece, such as excessive red tape and insufficient competition in the services sector. The reform of the Greek public administration remains a crucial undertaking, not only because it can raise the productivity of the public sector but also, and even more importantly, because it can contribute to raising the overall efficiency of the economy by improving the state's capacity to deliver the necessary policies and by reducing its burden on the business sector. Indeed, the main challenge in the immediate future is the effective design and implementation of the planned measures.

Over the longer term, it would be useful to address also other determinants of the business environment, including reducing excessive delays in the judiciary and restoring stability in business taxation.

3.8.6. Entrepreneurship and SME policy

The SME sector in Greece is more prominent than in the EU as a whole, and dominated by micro enterprises, which account for 58% of total employment or twice as much as in the EU on average. Entrepreneurship activity is more intense than the EU average, with a business

ownership rate double the EU average. The economic crisis has put Greek enterprises under considerable stress both through a credit squeeze and, more recently, an internal demand shock.

The national scheme of investment support (through grants, tax breaks and subsidisation of long-term loans) is being redesigned and its basic principles have been put in public consultation. The other measures to be mentioned here are of a more temporary nature, either because they are linked to the crisis or because they are initiatives financed by the EU structural funds.

Providing loan guarantees to small and very small enterprises through the Guarantee Fund (ΤΕΜΠΜΕ) for small and very small enterprises has been the main instrument for alleviating the impact of the crisis on the business sector and it has been used massively. A first phase (January-March 2009) included interest rate subsidisation in addition to guaranteeing the principal. The second phase used more relaxed eligibility criteria and is still running. In total, the amount of loans covered is of around EUR 5.2 billion for about 57000 enterprises. Two new actions were launched by ΤΕΜΠΜΕ in 2010, one to pay-out debts to suppliers (total covered of EUR 1.25 billion), also covering new enterprises, and one to pay-out tax and social security debts (total covered of EUR 1.25 billion). Another temporary measure in the same area has been a law freezing bank debt of enterprises hard hit by the crisis and providing for debt-rescheduling.

Regarding support to new investments there are several actions running financed by the OP *Competitiveness and entrepreneurship*. In addition to those already presented above, one can mention the actions targeting investments by micro (less than 10 employees) and small (less than 50 employees) active in manufacturing, tourism, commerce and services (total budget of EUR 650 million); the tertiary sector – tourism and commerce (EUR 668 million) and professionals (EUR 70 million), in the clothing and shoes sector (EUR 15 million) and women and young entrepreneurship projects (EUR 70 million).

The immediate challenge for the business sector is to survive the crisis, and the policy response to restore liquidity through massive loan guarantees seems adequate. Over the longer term, the real challenge will be to strengthen the structure of the productive base towards higher value-added and high-growth activities. This is a task mainly for the individual entrepreneurs but policy can help by facilitating structural change, providing the right incentives and removing the numerous obstacles to growth.

3.8.7. Conclusions

Apart from the short-term concerns related to the economic crisis, such as getting access to finance and adjusting to the internal demand shock, the main challenge facing industry, but also the real economy overall in Greece is a business environment that is not delivering optimally.

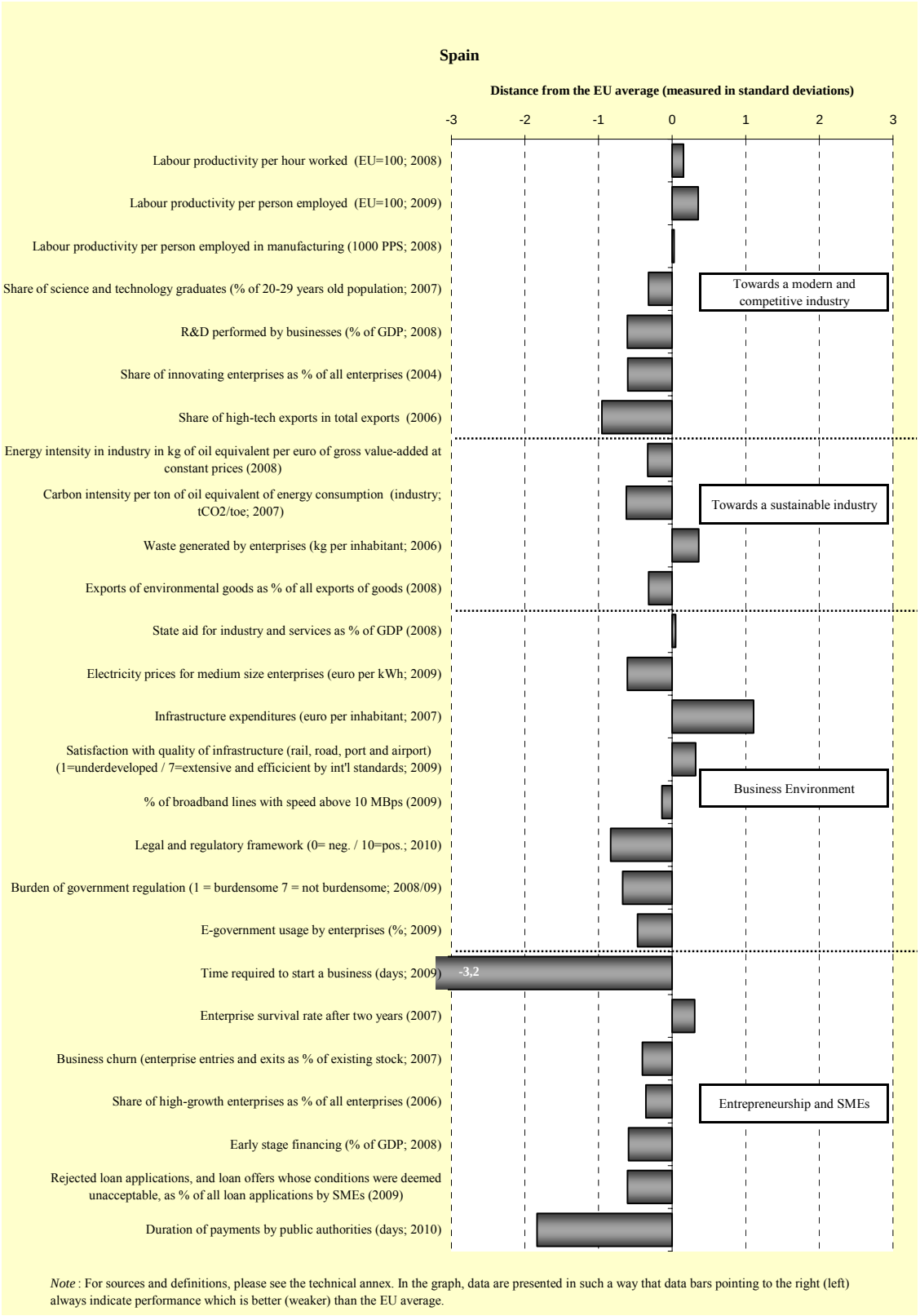
Addressing the public finances crisis should alleviate the liquidity problems in the economy in the medium term and restore expectations at a level conducive to growth. Improving the business environment through actions such as those planned in the Memorandum of Understanding (MoU) will contribute to this by reducing the costs of doing business in Greece across the board. However, there remains the structural problem of specialisation in low-skills, low technology and low growth sectors. The policy response to this problem calls for actions to facilitate structural change, some of which, such as increasing maximum rates

of collective dismissals, or making mergers and acquisitions easier are included in the MoU, and to adjust incentives so as to induce sustainable growth. This implies product market reforms to eliminate rent seeking behaviour and to permit a more rational allocation of resources as well as actions to raise the knowledge base.

The public administration constitutes an important bottleneck to economic growth, through its huge cost to the rest of the economy, both through its size and through its way of functioning, through regulatory capture, low quality of services and ineffective enforcement that puts at disadvantage those playing by the rules. We note, however, that the efforts undertaken by the Greek government, also within the context of the MoU, are expected to redress the situation within a reasonable amount of time.

3.9. Spain

3.9.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.9.2. Introduction[31]

Productivity growth has been slow during the last decade, with high allocation of investment to low productivity sectors, especially construction and low-productivity services. However, equipment investment had been also increasing steadily until the beginning of the crisis, with rates of real change in terms of national accounts, more than 9% in 2005, 2006 and 2007.

Spain has a labour productivity above the EU average, by around 6% if measured per hour worked and 11% per person employed. There was a notable increase between 2008 and 2009 in this last indicator, attributable more to the sharp contraction of the construction sector rather than to improvements in the structural drivers of total factor productivity.

The real effective exchange has appreciated markedly between 1999 and 2009 indicating a loss of competitiveness to third countries. This conclusion is underpinned by the fact that nominal unit labour costs in Spanish manufacturing increased by 31% between 2000 and 2009, thus 12 percentage points above the EU average of 19%.

Spain is specialised in low and in low-intermediate skill sectors. The importance of high skill and high-intermediate sectors has been stable on a low level from 1997 to 2007. This picture is confirmed by a clear trend towards sectors with medium-low technology intensity, a stable specialisation on low technology sectors and a quite low and decreasing share of high technology sectors. Spain tends to specialise in sectors with a growth rate below the EU average.

Manufacturing plays a smaller role for Spain than for the EU in total (15,1% vs. 18,1% of value added in 2009). Compared to the EU, the manufacturing sector shows some specialisation on non-metallic mineral products, basic metal products, food, textiles, other machinery and leather and footwear. In the service sector, hotels and restaurants have a clear above average weight. A relevant fact is the high share of the construction sector (11.50% in 2008). This is the result of a large increase in the last decade. Agriculture and, in particular, fishing are much more important than for the EU in total. Employment figures show the low level of productivity in agriculture but also its decreasing importance over time and a structural change towards service sectors. Spain has a deficit in the trade of goods; relative to the total volume of exports, it decreased markedly from 2005 to 2009. The negative trade balance in manufacturing mainly resulted from deficits in electrical and optical equipment chemicals and textiles and clothing while only transport equipment and non-metallic mineral products showing a trade surplus. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Spain in 2008 in non-metallic mineral products, transport equipment, leather and footwear and food, drinks and tobacco.

Exit from the crisis

The economic and financial crisis hit Spain hard. The oversized construction sector and its supplying sectors (e.g. cement, bricks, ceramics, iron and steel, furniture) as well as automotive were hit the hardest. Manufacturing output decreased by 27%. In July 2010, the production is still 24% below pre-crisis level. New and less competitive companies are most

[31] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

affected by the crisis and still face problems in access to finance. Direct grants of less than EUR 500 000 were granted to over 8000 enterprises mostly SMEs in the tourism, road transport, services, car supplier and manufacturing sectors.

In addition, there have been numerous credit lines either set up or enlarged in 2009 and often renewed for 2010, managed by the Official Credit Institute (ICO), which target in particular SMEs.

There have been several initiatives to provide temporary relief for the car industry including funds to maintain and enhance competition in the automobile industry from the Central Government's special fund to vitalise the economy and employment, industrial measures and support for demand (including a car scrapping scheme), labour measures, support for the logistic sector, support for R+D+I and financial measures with the endowment of credit lines. These measures are temporary and either have already been phased out at the end of 2009 or they are expected to disappear in 2010.

3.9.3. Towards an innovative industry

Spain's total R&D expenditure increased from 0.95% of its GDP in 2001 to 1.35% in 2008, with a private participation of 56.1%. This trend is based on a substantial increase in both private and public expenditures. EU Structural Funds have made a significant contribution to such progress. Thus, for the ERDF 2007-2013 programming period, almost €9 billion were allocated to R&D and innovation.

The authorities have been adopting measures to catch up in terms of innovation, especially for the private-sector. Measures have been adopted to stimulate business creation and facilitate funding and incentives, and efforts are ongoing to reduce those labour-market rigidities to provide a more favourable environment and stimuli to the different agents of the innovation system at national and regional levels. The INGENIO 2010 Programme, which represents the main programme within the National Reform Program regarding the R&D&I issues, continues being particularly detailed and generously funded. It proposes a number of instruments to increase the focus and funding of government research, stimulate technology transfers by encouraging public/private partnerships and enhance the incentives for private-sector research and the diffusion of new technologies.

The National Strategy for Innovation (e2i), recently adopted intends to accelerate the transformation of the Spanish productive model and increase the economy's innovative capacity. It focuses on 5 axes around knowledge transfer: finance, markets, internationalisation, regional cooperation and human resources.

General Guidelines of the Integral Plan on Industrial Policy 2020 (PIN-2020) have recently been approved, aimed at orienting structural change in industry towards higher value and knowledge intensive activities.

At the same time, Spain continues applying reindustrialization programmes on certain territories, according to the Guidelines on National Regional Aid for 2007-2013. Their target is to create sustainable development through the deployment of new industry, or regeneration of the old one.

Spain would gain from continuing efforts to improve the quality and excellence of research, to absorb knowledge spill-over from other countries and to connect to the expanding European

research system. A number of challenges remain. Firstly, the research sector, developed in a wide net of researching centres and universities, is not adequately oriented to enterprises. It will be important to increase public-private cooperation and incentivise enterprises and public centres to learn to work together. Secondly, business R&D expenditures are low and efforts to encourage their rise should continue. Thirdly, the availability of qualified RDI human capital, for example PhDs, is an issue of concern.

3.9.4. Towards a sustainable industry

Energy intensity is still higher than the EU average, but improved by 4.6% in 2008. Promoting renewable energies continues to be a priority of the Government. A new Renewable Energy Plan (PER) 2011-2020 is being drafted and will include new technologies such as geothermal and wave power. Both are in response to commitments assumed by Spain in the Energy and Climate Change Package for 2020.The Government implemented the Energy Saving and Efficiency Plan 2008-2011 comprising 31 measures. The part of the Plan implemented to date would provide about 75% of the annual target saving. These measures include notably a new incentive mechanism to reduce losses in the distribution network. The Plan for Energy Saving and Efficiency will be reviewed and updated for the period 2013-2020. In addition, a plan to foster internationalisation of Spanish enterprises in sectors related to climate change (such as renewables and environmental technologies) was approved in March 2009.

In 2008, the State General Administration Green Procurement Plan set a goal of achieving 50% green public procurement by the administration by 2010. The measures defined in the plan are being put into practice, including training courses for procurement personnel and the drawing up of good practice codes for product groups. There has also been progress in the use of EU Eco-Management and Auditing Scheme (EMAS) and the EU eco-label system. Significant progress has also been made in the development of eco-design guidelines.

3.9.5. The business environment

The legal and regulatory framework in Spain is seen as being less favourable to businesses than the EU average and the country's rank in the last Doing Business report lost 10 places, not because the situation worsened in Spain in absolute terms (it even improved in some cases) but because other countries progressed much faster. Procedures regarding business start-up are particularly numerous, resulting in lengthy delays.

Spain has put a high priority on improving infrastructure as corresponding expenditures and user satisfaction indicate.

Spain has established in 2007 the target of reducing by 30% by 2012 the administrative burden on businesses. In the framework of the Plan to Reduce Red Tape, the Cabinet approved over the period June 2008 - April 2009 three packages to reduce administrative burden involving a total of 159 measures.

A Royal Decree (RD) regulating the report on the analysis of regulatory impact was approved in July 2009, with the aim of facilitating and strengthening the assessment of the legal, economic, budgetary, gender and social impacts that the new regulations may have, including the impact on the resulting administrative burden. The publication of the impact assessments is non-mandatory. This RD does not apply to regional legal procedures, but regions are developing their own impact assessment regulations (their scope is more limited). According

to the new RD, consultation of stakeholders would be done before starting the legal procedure proper. A public internet consultation tool is not yet available.

eGovernment usage by enterprises is below the EU average but is increasing fast (from 58 to 65% in the last 3 years). eGovernment policy is part of the overall in the Spain's Information Society policy dating from 2007 and renewed in 2010 through the Plan Avanza 2. Identified measures are being introduced timely. The National eProcurement Platform is mandatory only for the central government procurement authorities.

With a view to improving the business environment and increase competition in professional services, the Spanish authorities implemented the ambitious "Omnibus" and Umbrella Laws, which aim at transposing the general principles of the Services Directive in sector-specific laws and also include a number of certain measures to reduce the administrative burden for start-ups. The system will be supported by an integrated virtual one-stop-shop. In addition, the draft law on Sustainable Economy of March 2010 included additional measures in this field such as a further reduction in time and administrative costs for in setting up businesses. A reform of the Bankruptcy Act is planned in order to simplify procedures and reduce costs. Measures to modernise the Justice administration will also be introduced in the next 3 years.

Regulated tariffs for electricity were abolished in 2009 and the progressive elimination of the tariff deficit is planned, although a freeze in electricity prices was announced recently in order to help households and businesses cope better with the crisis. The operations proceedings to reinforce the electric interconnections with France and Portugal have been approved.

The Strategy for Sustainable Economic Growth approved in the end of 2009 includes measures to streamline bureaucracy, improve education and encourage companies to have a more international focus as well as tax breaks for firms that innovate and the promotion of investment in the renewable energy sector and high-tech industries. The law on Sustainable economy also includes measures to help the reorientation of the construction sector towards rehabilitation and urban renovation.

Continue improving the conditions for the creation of new companies is a key challenge in the current context of change in the productive structure of the Spanish economy. Moreover, professional services need to keep on moving away from the traditional anti-competitive regulation with the use of recommended tariffs (which often exceed the cost of the service provided), or a number of prior administrative authorisations to deliver certain services. Restrictive regulations in the retail sector have resulted in higher prices for the consumers and limited productivity increases and efforts to increase.

3.9.6. Entrepreneurship and SME policy

The contribution of the total SME sector to employment (78%) is in Spain higher than in the EU on average (67%), particularly in micro firms (38%). The cost to close a business' is also above average. The share of population that already started a business or see entrepreneurship as an opportunity is only 49% in Spain as opposed to almost 58% in the EU). The attitude towards allowing people a second chance with a new business is the least positive within the entire EU.

Regarding access to finance, although new extraordinary credit lines have been introduced in order to help the liquidity of SMEs, the efficiency of the system is not optimal, since the

Official Credit Institute (ICO) does not have its own network to operate directly with SMEs, independent workers or families and needs to go through banks.

Spain is the second worse performer in the EU regarding payment duration. The shortening of payment terms remains of particular importance for SMEs, which often have a weak equity position, which is further undermined by the late payment. Improving the cash flow is particularly important in times of crisis.

Since 2006/2007, the programme 'Emprendemos juntos' aims at promoting the social recognition of entrepreneurs and developing a positive image of business people. One of the main actions is the organisation of an 'Entrepreneur Day and similar activities at regional level. Regarding entrepreneur skills, a law introducing entrepreneurship into the school curriculum was adopted in 2006 and started to be implemented in 2009 at local level by the autonomous regions. Since 2008, the capitalisation percentage of unemployment aids was increased to enhance the chances of the unemployed to become self-employed.

The 'Local Investment Fund', part of the 'E-Plan' aimed at increasing public investments at a local level by financing newly planned public works in 2009. Its aim was to favour the viability and involvement of enterprises (especially SMEs) carrying out activities related to the construction sector, while improving public local infrastructures.

A law laying down measures to combat late payment has been passed in July 2010, which should reduce the time of payment by the public sector to 30 days, 60 days for payments between companies. There are also new measures in place to support exports.

It is relevant to note the substantial financial contribution of the European Regional Development Fund (ERDF) to the above activities: 3,5 billion to SMEs and entrepreneurship and 1,1 billion for ICT. Also the new Technology Fund, devoted to Innovation by and for the benefit of Enterprises, mainly SMEs, received a special allocation of about €2 billion.

Furthermore, in the last few years Spain has launched three JEREMIES (venture capital funds co-funded by the ERDF), holding funds amounting over EUR 430 million. These financial instruments are targeted to enterprises needs by providing guarantees, loans, equity participations and/or venture capital for innovative enterprises.

Spain continues to lag behind on entrepreneurial culture. Liquidity problems continue to be acute and further measures will be necessary to ensure sufficient access to finance, in particular for SMEs. In terms of late payment, despite some recent measures there is still room for improvement.

3.9.7. Conclusions

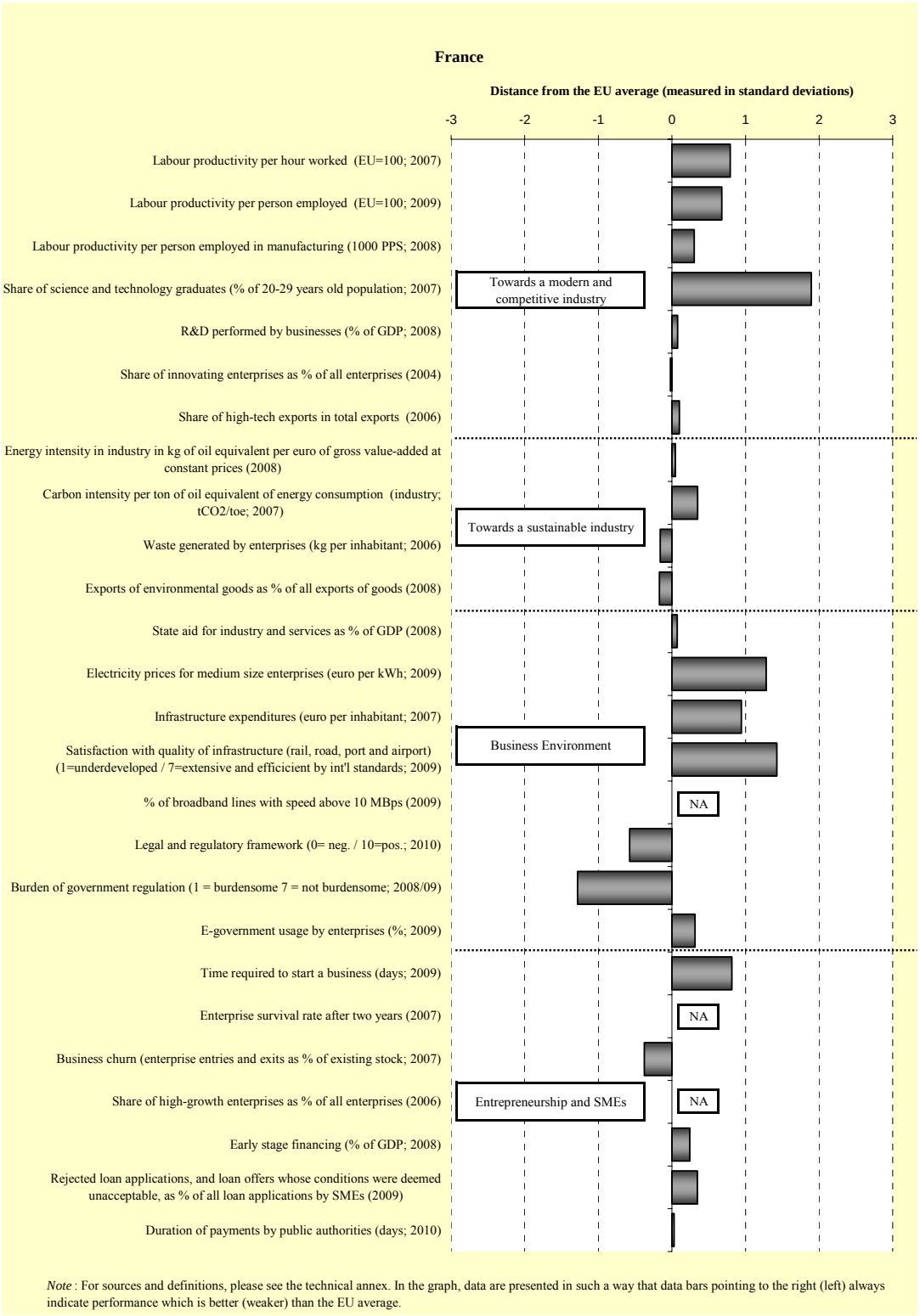
The crisis has taken in Spain a heavy toll on competitiveness, jobs and public finances. The expansionary fiscal measures taken in 2009 will be discontinued, reducing relief to hard hit sectors. Under these circumstances, having access to finance will be particularly important for SMEs.

Spain would benefit from continuing to facilitate structural change towards a more knowledge-intensive economy. The challenge is therefore to enhance productivity and facilitate wage and price adjustments. Improving innovation and investment by firms, making the regulatory framework more favourable for business creation and growth, training

(including permanent training of workers) and encouraging competition, especially in services are also crucial for achieving this objective.

3.10. France

3.10.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.10.2. Introduction[32]

France's overall competitiveness position is shown in its labour productivity which is, measured both per hour and per person, clearly above the EU average. The real effective exchange rate has appreciated moderately between 1999 and 2009, indicating a slightly decreased price-competitiveness; however, this decrease was less pronounced than for the EU in total. Moreover, while nominal unit labour costs in French manufacturing first declined somewhat and then increased again resulting in an overall increase of 5%, this increase remains 14 percentage points below the EU average of 19%.

France is specialised in sectors demanding high skills while the specialisation of the other sectors is slightly below the EU average. Nevertheless, France shows a decreasing specialisation towards sectors with high technology intensity and an increasing specialisation in the medium-low technology sectors from 1997 to 2007. There is no clear profile regarding sectoral growth intensity as both sectors with relatively high and relatively low growth play an important role.

Manufacturing plays a significantly smaller role for France than for the EU in total (12% vs. 17% of value added in 2008). The only sub-sector which is approaching an EU average importance is food/drinks/tobacco (actually tobacco's share is negligible). Above average values can be found in the service sector for "real estate and business activities", "health and social work" and public administration as well as for agriculture and fishing. Figures for earlier years showed a sub-sectoral structure for manufacturing which was somewhat more in line with the EU average. Employment figures also show the slowly decreasing importance of manufacturing over time. Forecasts until 2020 expect an increase in employment in business and other services by almost 10% while employment in manufacturing might drop further by some 8%.

France shows a moderate deficit in the trade of goods, relative to the total volume of exports. The negative trade balance in manufacturing mainly resulted from deficits in electrical and optical equipment, textiles and clothing and basic metal products while mainly transport equipment, chemicals and food/drinks/tobacco showed noteworthy trade surpluses. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for France in 2008 in food, drinks and tobacco and transport equipment.

Exit from the crisis

French manufacturing output dropped by 20% during the economic and financial crisis. Production increased by 9% in July 2010 compared to the bottom of the crisis.

The anti-crisis measures mainly focused on easing the access to finance for companies (for an amount of EUR 15.9 billion out of EUR 33 billion spent under the Recovery Plan by March 2010). This primarily included early reimbursement of fiscal debts, such as VAT, corporate tax or Research Credit Tax, and combined with higher pre-financing in public procurement, fiscal relief for job creation in very small enterprises, loan guarantees to small and mid-size enterprises as well as more than EUR 1.5 billion of direct investment in various companies by

[32] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

the *Fonds Strategique d'Investissement*. Such measures were characterised by very rapid implementation, and their combination with support to the banking sector contributed to avoid a credit crunch and prevented short-term liquidity disruption for most enterprises.

Additional anti-crisis measures were largely based on public investments in transport, research and building infrastructures (for an amount of EUR 9.8 billion out of EUR 33 billion spent under the Recovery Plan in March 2010) from public undertakings, local authorities and central government. Such investment was slower to implement but had some multiplying effect on economic activity.

Other notable budgetary measures regard sectoral aids to the automotive industry (car scrapping scheme, which benefited more than 700,000 individuals so far, and state aids including a 5-year 'green' loan of EUR 6 billion to the car builders PSA and Renault, aimed at supporting the development of cleaner vehicles).

The recovery measures, which were targeted, timely and temporary, contributed to sustain domestic demand and to avoid a deeper recession.

3.10.3. Towards an innovative industry

In terms of innovation performance, France remains among 'innovation followers', as measured by the European Innovation Scoreboard. While public sector investment is significant, France's main weakness lies in a relatively low private investment in R&D and a low innovative behaviour of companies, notably SMEs.

In 2008-2009, in a context of economic crisis, public funding to encourage business expenditures in research and innovation was increased and focused on a few key instruments, namely the Research Tax Credit (CIR), the innovative start-up scheme (*Jeunes Entreprises Innovantes*), financing by the Innovation Agency OSEO and support to competitive clusters (*pôles de compétitivité*). In 2009, an evaluation demonstrated the effectiveness of the innovative start-up scheme.

EUR 7 billion out of the EUR 35 billion dedicated to 'investments for the future' (financed by the *Grand Emprunt* launched in December 2009) were allocated so far, out of which EUR 4.5 billion directly relate to innovation, including EUR 1.8 billion for eco-innovation. Fund allocation is consistent with the priorities set in the *National Strategy for Research and Innovation* (2009).

Most *Regional Innovation Strategies* were adopted in 2009, which can contribute to the consistent implementation of the principles and priorities of the *National Strategy for Research and Innovation*, based on the strengths and weaknesses of the competitive situation and of the 'innovation ecosystem' identified at local level, and through coherent use of existing policy tools.

In 2010-2011, in a context of constrained public finances, it is expected that a systematic evaluation of the added value and effectiveness of existing financial schemes and state aids in promoting additional business investment in R&D&I based on performance indicators would allow refocusing public spending on key innovators (such as innovative SMEs). This could be combined with a reflection on the insufficient private funding of innovation (e.g. venture capital and bank loans), for example as regards possible substitution effects from public intervention or lack of competition in the financial sector.

Technological but also non-technological innovation (including product differentiation through design or branding and innovation in services and processes) can play a key role in strengthening the non-price competitiveness of export-oriented production (goods and services). To this end, several possibilities exist to further improve the 'innovation environment', e.g. pursuing efforts to improve the governance of the *pôles de compétitivité*; improving the efficiency of public structures in research and innovation and higher education (e.g. mergers of institutions to reach 'critical mass'); strengthening incentives to public-private cooperation including through 'valorisation' of public research findings; through public procurement etc. Efforts to strengthen the cooperation between secondary and higher education and the business community may be usefully pursued and amplified, as well as the development of vocationally-oriented curricula with technical or engineering background (notably at regional scale).

3.10.4. Towards a sustainable industry

Greenhouse gas emissions in 2008 decreased by 6.4% overall compared to 1990. Emissions from electricity generation are low compared to most developed countries due to nuclear power, but emissions from transports and buildings increased until 2008 compared to 1990, and energy consumption from buildings increased by 4.8% between 2000 and 2007. This is to be compared with the targets of the *Grenelle de l'Environnement* (-38% in energy consumption from buildings and stabilisation of greenhouse gas emissions from transport by 2020). The share of renewable energy in gross inland consumption is 7% in 2007, to be compared to a target of 23% by 2020, and mainly comes from biomass (for heat and power) and hydropower. Two French producers of biomass heating are in the world top 10, but there is no significant French manufacturer in the sector of solar and wind energy, where France seems to have lost the competitive race so far.

Energy intensity decreased by 15% between 1991 and 2006 and energy efficiency is high compared to most developed countries. Electricity prices (including for industrial customers) are relatively low and energy dependency remains below the EU average.

The Recovery Plan did not contradict with long-term environmental targets. "Green" recovery measures in rail, waterways, ports, energy efficiency in agriculture, thermal renovation of buildings, car scrapping scheme, green R&D and energy infrastructures accounted for more than 15% of the Recovery Plan.

2009-2010 measures for the energy performance of buildings consistently address the main market failures by encompassing regulation, audit and certification, tax and financial incentives, consumer information and training of professionals. Installation of plug-and-ride terminals, combined with 'green' loans to car manufacturers and public procurement, is expected to allow selling of electrical vehicles as of 2011. Heavy transport will be charged on free roads as of 2011. But the consistency between *Grenelle I* targets and *Grenelle II* provisions is less obvious in the field of renewable energy, notably as regards the development of solar and wind energy at industrial scale. A draft 'national strategy for sustainable development 2009-2013', consistent with EU targets and policies, is being discussed. In January 2010, a national conference on 'green growth jobs' identified future skill needs in 11 'green' sectors.

Promoting export-oriented specialisation areas in the 'green' sectors through integrated sectoral strategies is reported as a means to strengthen France's industrial competitiveness while contributing to the 'greening' of its overall economy and the achievement of its

environmental targets. This may include environmental industries (e.g. air, water and waste treatment) and eco-technologies (e.g. new technologies in renewable energy), transportation (e.g. rail, electrical and hybrid cars), energy (e.g. biomass heating), 'sustainable cities' (e.g. sustainable urban mobility & urban planning), sustainable agriculture, 'green' chemicals etc, and may be connected with the priorities set in the *National Strategy for Research and Innovation (2009*) and the future *National Strategy for Sustainable Development*.

3.10.5. The business environment

France scores significantly better than the EU average concerning electricity prices for medium size enterprises, infrastructure expenditures and satisfaction with the quality of infrastructure. eGovernment usage by enterprises in 2009 is slightly below the EU average. France scores clearly below the EU average concerning the burden of government regulation and the legal and regulatory framework. The latter indicates some potential for clarifying the business environment (e.g. corporate law and corporate taxation), streamlining administrative structures (e.g. Balladur report, duplication of services) and systematically reviewing state aid and financial support schemes (e.g. 6000 support schemes for enterprises, including 120 for creating a new firm).

Since 2008, France has undertaken a set of initiatives in order to improve the regulatory quality. Since 1st September 2009, impact assessment has been a constitutional requirement and any bill proposed by the government must be accompanied by an impact assessment made public online. Impact assessments have a significant scope, but no recommendation is made concerning SMEs. The streamlining of permanent consultation bodies (abolishment of 40% of the advisory boards) in 2009 and the increased use of temporary consultation mechanisms such as the '*Grenelle'* method and '*Etats généraux*' and of publicly available consultation documents are positive.

The most recent simplification law (May 2009) includes few provisions for enterprises. The initial national objective was to reduce the burden of the most burdensome or 'irritating' procedures by 25% before end 2011. 700 administrative obligations or procedures were analysed so far, and 250 simplified. Besides, the measurement methodology was enlarged to "users' expectations" (including private individuals). Following '*Etats Généraux de l'Industrie*', a new initiative was launched in May 2010 to "simplify the legal and regulatory environment of businesses for their competitiveness", including all administrative procedures and laws applicable to enterprises, and to reduce corresponding costs and delays.

In 2009, the transposition of the Services Directive strengthened one-stop-shops for creating, modifying or closing a company. New e-Government services allow enterprises to pay their taxes and social contributions online.

The ongoing *State Modernisation Programme* (RGPP) implies huge efforts for streamlining the state's organisation to improve public finances. There are obvious synergies between this exercise and a systematic review of the business legal and regulatory environment from the 'competitiveness' angle, as proposed following '*Etats Généraux de l'Industrie*'. The overall business environment would also benefit from enhanced domestic competition (e.g. banking sector; business and other services).

3.10.6. Entrepreneurship and SME policy

The SME sector in France employs, in total, relatively less people than in the EU (61.7% vs. 67.4%). France scores above the EU average concerning the time required to start-up a business and slightly above the average concerning early stage financing and bank loan conditions deemed acceptable by companies, despite deteriorated access to venture capital and payment delays in 2009. France scores slightly below the EU average concerning the business churn.

The rate of SMEs which import, export and invest abroad and the rate of SMEs which innovate internally and place new products on the market remain below the EU average (according to the SBA fact sheet 2009). This might be correlated to the lower share of high-growth SMEs and to an overall insufficient growth of SMEs. To enhance their innovation capacity, non innovative SMEs primarily need information and contacts (e.g. through OSEO, chambers of commerce, regional authorities, competitive clusters etc.) while innovative SMEs need financing, especially in the expansion stage (including from venture capital). Both need enhanced access to skilled workforce.

320,000 enterprises were created under the new statute of 'auto-entrepreneur' in 2009 (against 260,000 creations with other statutes), mainly by employees and unemployed benefiting from the new programme for business creation and takeover (employment policy). Annual sales by 'auto-entrepreneurs' are low (EUR 6 300 on average) and the conversion rate into 'normal' companies is unknown, but this measure certainly promotes entrepreneurial spirit. Assessment in the mid term is necessary.

The OSEO financing capacity (guarantees) was significantly increased in 2008 within the Recovery Plan, and EUR 2.5 billion were added in 2009, including EUR 1 billion for innovative SMEs. The introduction of the Credit Ombudsman can be considered as a good practice. The deterioration in payment delays in 2009 due to the crisis was partially offset by the positive impact of the *Loi de Modernisation de l'Economie* on the duration of payments; the early reimbursement of the *Research Tax Credit* contributed to relieve short-term financing constrains for key innovators (i.e. innovative start-ups and high-growth SMEs).

In 2010, the creation of regional "single contact points" providing SMEs with overall information about all administrative procedures and obligations (including taxation and state aids) was decided following the '*Etats Généraux de l'Industrie*'.

Easier access to bank loans (through support to mutual guarantee mechanisms) and private funding (including venture capital), simplification of the regulatory environment, enhanced domestic competition (e.g. in business services) and a more dynamic and open research and innovation system are key levers to set the right conditions to promote the growth, export and innovation capacity of SMEs.

Efforts to improve reduced payment delays from public undertakings should be pursued. Derogations to the rule on payment delays should be suppressed by 2012.

Efforts to improve the efficiency of public support to exporting firms (e.g. avoiding duplication and overlaps of efforts by various structures), especially in emerging countries such as India and China, should be pursued.

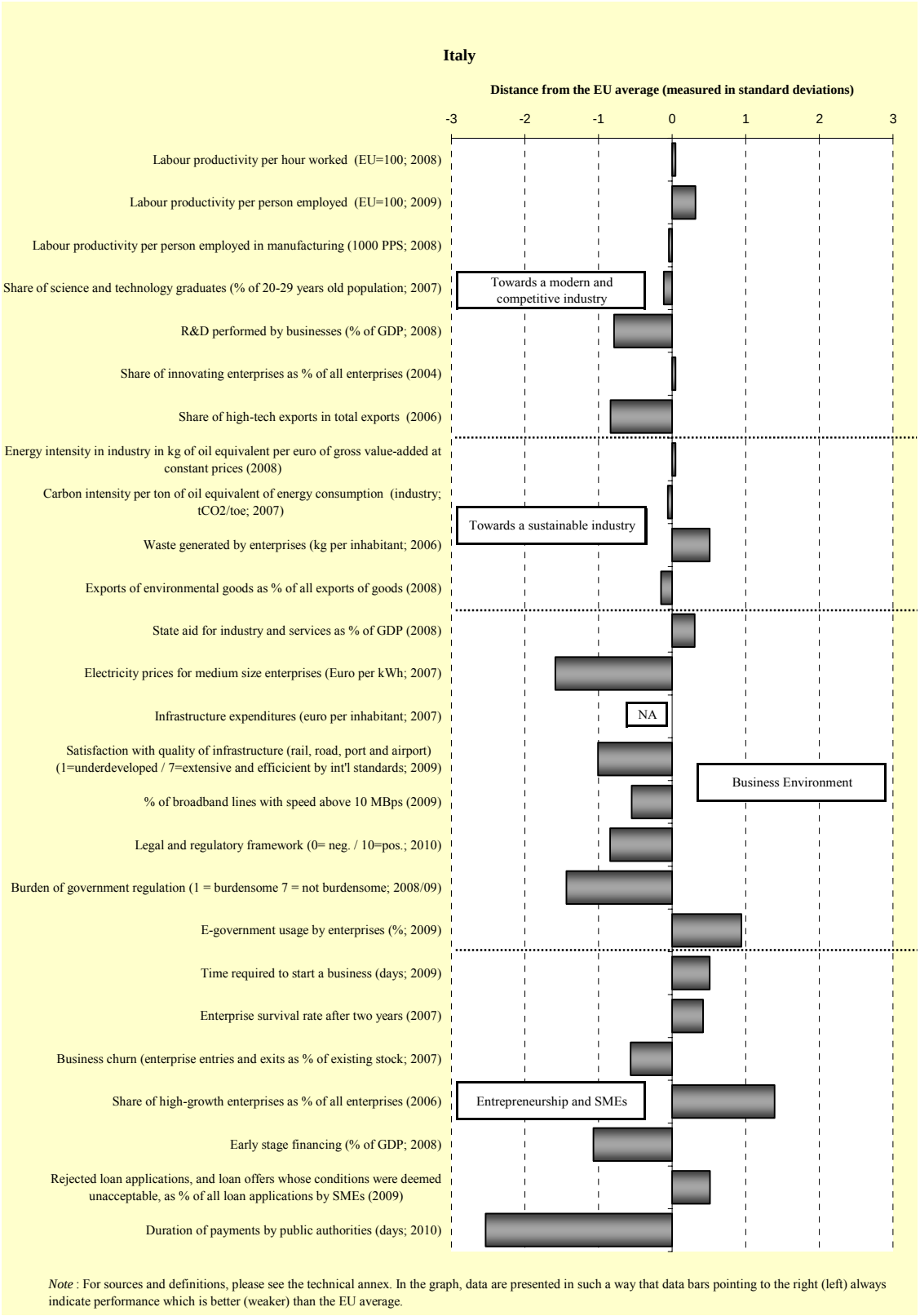
3.10.7. Conclusion

Challenges for France are to improve its external competitiveness and to facilitate structural change. To this end, efforts should continue to improve the overall research and innovation environment, including through stronger links between the business community, higher education and vocationally-oriented curricula, and to implement the *Regional Innovation Strategies* which are more accessible to SMEs.

The legal and regulatory environment for businesses, including administrative procedures and financial schemes such as state aids, needs further simplifying to reduce associated costs and delays; improving the competition framework would also benefit the overall business environment. Easier access to finance and human capital, information and networking within an 'open' innovation system, simplified business environment for SMEs, and efficient support to exporting firms would also contribute to the growth of SMEs.

3.11. Italy

3.11.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.11.2. Introduction[33]

Italy's labour productivity, measured per hour, was slightly above the EU average in 2005 and 2008; measured per person, it was stable at some 110% of the EU average. Real and nominal unit labour costs increased more than in the EU as a whole between 2005 and 2009. Moreover, nominal unit labour costs in Italian manufacturing increased by 45% between 2000 and 2009, thus more than in any other EU-15 Member State except Luxembourg. As a result, the overall increase was more than twice the EU average of 19%. Italy's real effective exchange rate has appreciated markedly in the past ten years, indicating decreased competitiveness against third countries.

Italy is specialised in sectors demanding low-intermediate labour skills and in low skill sectors though the importance of the latter is decreasing from 1997 to 2007. The share of high skill sectors remains slightly below the EU average. The sectoral structure by technology category remained partly stable with a low weight of sectors with high and medium-high technology intensity.

Manufacturing accounts for a larger share in the Italian economy than in the EU in total (18.5% vs. 17% of value added in 2008). This is mainly due to specialisation on leather and footwear and textiles and clothing as well as, to a lesser extent, other machinery, basic metal products and non-metallic mineral products. In services, Italy's sectoral structure follows the broad picture of the EU in total; only the hotels and restaurants sector has a clearly higher weight. Agriculture and, in particular, fishing are more important than in the EU as a whole. Employment figures point to a below-average level of productivity in manufacturing; the share of manufacturing in total employment has decreased over time. Forecasts until 2020 predict an 18% increase in employment in business and other services, while employment in the primary sector might decline by almost 30%.

Italy's trade in goods has been in balance. Its strengths relate to the export of a wide range of medium-technology consumer and investment goods. The rapidly growing high-technology information and communications sectors play a smaller role in exports. Transport equipment, other machinery, and chemicals showed a strong export performance, with also basic metal products, electrical and optical equipment, and textiles and clothing being important exporting sectors. The trade balance in manufacturing resulted from surpluses in, above all, other machinery; textiles and clothing; and other manufacturing. Electrical and optical equipment and chemicals showed a noteworthy trade deficit. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Italy in 2008 in leather and footwear, textiles and clothing and other manufacturing.

Exit from the crisis

Italian industry has been hit hard by the crisis. Production in the manufacturing sector in July 2010 stands at 80% of the pre-crisis level. Most industrial sectors are in difficulty. Those which suffered first from the contraction of the international demand were the metal-mechanic and textile industries. Since September 2008, also sectors such as agro-food, construction, commerce, and chemical industry have been hit.

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[33] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

Given the high public debt, the Italian fiscal stimulus and support to the real economy were prudent and focused on targeted support measures. On the product market, the government has temporarily subsidised the purchase of durable goods – such as domestic energy efficient appliances and furniture, and energy-efficient and innovative cars with low-environmental impact – while, at the same time, fostering environmental goals through energy saving and emissions reduction. Measures were also taken to foster industrial innovation, reduce administrative burden and accelerate investment in priority infrastructure such as railways and public works. Italy has also taken a number of measures for alleviating the impact of the crisis on the business sector (more detail in SME section below).

In general, measures taken to mitigate the impact of the crisis have relied mainly on reallocation of funds, trying to shift them towards action with high growth multipliers and future-oriented areas, such as environmentally friendly technologies, resource efficiency and renewable energy, as well as smart infrastructure.

3.11.3. Towards an innovative industry

In terms of innovation performance, Italy is below the EU average and its relative position has not significantly improved over the past five years. According to the European Innovation Scoreboard (EIS), Italy positions itself in the group of 'moderate innovators', showing slow progress and registering a below-average annual growth rate. Italy is behind its main European partners in many indicators of technology and innovation such as lifelong learning, tertiary education, patents, and business R&D expenditure. Expenditure on R&D was only 1.2% of GDP in 2008, with the private sector accounting for less than half of the total. This low performance reflects the prevalence in the productive sector of SMEs, which are specialised in manufacturing with a medium high-technology output, as well as of small firms such as family businesses. Although they have traditionally been a source of dynamism, their limited financial resources hamper the ability to invest in research activities and innovation.

In the area of innovation, a number of relevant measures were taken, including the creation of public-private joint-labs in strategic sectors to sustain new high-tech industries, the establishment of eleven Technology Districts, the promotion of the Italian participation in Technology Platforms set up by the European Union and the establishment of incentive schemes that target sectors or activities identified as priority investment areas and that foster linkages between SMEs and research institutions.

Funding mechanisms in support of innovation include a mix of direct and indirect instruments. Although direct public support to companies through grants and loans has been the traditional approach to finance research and innovation activities, the system has changed since 2006, with the reform of the public incentive system and the transition from capital subsidies to risk-taking by banks.

The main initiatives launched between July 2008 and July 2009 include: the National Fund for Innovation, to promote innovative projects based on strengthening and exploitation of industrial property (total budget EUR 60 million); a risk capital fund for SMEs, to favour the influx of risk capital in southern Italy and support the creation and development of SMEs involved in investment programmes related to product and process innovation through the use of digital technologies (total budget EUR 160 million, of which EUR 80 million from public funds); a tax exemption on capital gains from start-ups, to reinforce the role of private investors, especially business angels; funds dedicated to finance innovation projects proposed by start-ups operating in medium/high-technology sectors in biotech, ICT, materials, robotics

and energy (total budget EUR 55 million); funds for research and innovation in the energy sector (total budget EUR 210 million) and a 'Brain return' measure to counteract the brain drain phenomenon and to attract Italian researchers living abroad through a tax incentive (10% tax applied to personal income) during the first five years of fiscal residence in Italy as of January 2009.

Measures were also envisaged to strengthen industrial competitiveness by enhancing patent and trademarks institutions and procedures and reinforcing protection against fraud and counterfeiting.

Under the shortage of finance both from public and private sources and the tightening of credit conditions which limits the firms' access to funds, the main outstanding challenge is innovation financing, including through a more efficient allocation of resources via the capital market. Related to this, a major weakness is the high degree of fragmentation of the institutions and actors that support new firms and innovation as well as a high number of instruments and measures at national and regional level. Thus, efforts to avoid fragmentation and overlapping between initiatives at national and regional levels, as well as to improve the current policy mix through an increased focus on key technology innovation areas would be useful. Another challenge relates to improving technology transfer mechanisms to reduce the existing gap between research and the market, especially through systemic public-private partnerships, and cooperation among companies. Furthermore, the shortage of high-skilled labour force and the brain drain phenomenon are concerns for Italy. Finally, the low propensity of companies to invest in innovative technologies and undertake organisational change is also due to strict regulations affecting certain sectors (e.g. entry barriers, price and quantity restrictions).

3.11.4. Towards a sustainable industry

Italy's environmental performances as regard the energy intensity of the economy and the carbon intensity of energy consumption in industry can be characterised as good. This reflects Italy's significant efforts to support the modernisation of the industrial base and to implement energy efficient technologies in order to reduce the need for energy imports. By contrast, Italy scores below the EU average concerning waste generated by enterprises and exports of environmental goods.

The development and the competitiveness of the Italian productive system are embedded in the *Industria 2015* Strategy. Its main instrument, the *Industrial Innovation Projects* (IIP), supports the implementation of specific projects in energy efficiency, sustainable mobility, new technologies for "made in Italy" products, new technologies for cultural and tourism properties, and new life technologies. All three calls already issued in this framework contain measures focused on the environmental impact, energy efficiency and spread of clean technologies.

In the framework of its recovery measures, Italy has supported investments in greening the economy, with emphasis on energy efficiency and use of renewable energies. The main recent initiatives in this area with direct relevance to industry included projects to sustain the diffusion of renewable sources and energy saving in SMEs, public buildings, secondary schools, sport centres, penitentiaries, small islands, and protected areas (total budget EUR 74 million for 2009) as well as a fund to develop and enhance the use of high-efficiency industrial motors and the production of electricity, heat and refrigeration via small co-generators (budget EUR 200 million per year over the period 2007-2009). In addition, Italy

introduced a tax break between July 2009 and July 2010 for investment in new machinery, incentives introduced by the February 2009 stimulus package to purchase low-emission motor vehicles (including some categories of commercial ones) in exchange for scrapping old ones (estimated budgetary cost of the incentives for 2009 was around EUR 1.1 billion, 0.07% of GDP), and funds allocated by the February 2010 incentive scheme to stimulate sales for motorbikes, including electric and hybrid models, home appliances and modular kitchens, energy-saving homes, alternative energy inventers and marine engines (total budget EUR 216 million).

At institutional level, the main development consisted in the reform of monitoring of waste from industrial activities adopted and implemented in 2009. The latter introduces an electronic *Industrial Waste Monitoring System* (SISTRI) to which enterprises are obliged to adhere.

Other relevant initiatives in this area are the adoption in 2008 of the Action Plan for green public procurement, which defines minimum standards for every category of goods and services purchased by the administration, and the establishment of a working group on green chemistry (a working group on green cars is also foreseen).

Italy's productive structure is heavily dependent on imported energy and the policy response to encourage a greater diversification of energy sources and suppliers seems adequate. Moreover, Italy has channelled resources towards future-oriented areas, such as environmentally friendly technologies, resource efficiency and renewable energy, as well as smart infrastructure. Building on the achievements of the first National Energy Efficiency Action Plan, Italy could develop further a more comprehensive energy efficiency strategy. The shortage of skills in science and technology also needs to be addressed if Italy wants to be competitive in innovation and the development of low-carbon technologies.

3.11.5. The business environment

Italian regulatory environment is characterised by lengthy and costly procedures for enforcing contracts and dealing with licences and, in general, high administrative burden on firms. The degree of competition in services is relatively low, especially with regard to energy market and financial and professional services. The quality of infrastructure lags behind other Eurogroup countries and despite massive public investment over last decades, large disparities persist between the north and the south of the country. In this light, Italy scores clearly below the EU average concerning the satisfaction with the quality of infrastructure, the legal and regulatory framework, the burden of government regulation and electricity prices for enterprises. By contrast, Italy scores significantly above the EU average concerning the e-government usage by enterprises and slightly above average concerning the level of state aid to industry and services.

Italy adopted in 2008 a law on urgent arrangements for economic development, simplification, competitiveness, stabilisation of public finances as well as tax equalisation. This law is structured around three main instruments: 'cutting laws', 'cutting-burden' and 'cutting bodies'. In this context, a target to reduce the administrative burden on businesses by 25% until 2012 has been set, with over EUR 4 billion of annual savings for businesses already achieved. In addition, a new simplified regulatory impact assessment system was elaborated, focusing on the impacts on enterprises, citizens and public administration. The law has also introduced the one-stop-shop (*Sportello unico*), which allows a business to be opened directly via Internet by sending a single communication.

Italy plans to extend administrative simplification measures to regions. Provisions annexed to the 2010 budget law indicate that this undertaking would imply for SMEs savings up to EUR 5 billion per year.

The reform of the public administration is ongoing. Its structuring principles are better linking pay with performance, increasing mobility and introducing further competitive elements in the appointment of public managers. Furthermore, the *e-Government 2012 Plan*, launched in 2009, aims to modernise the public administration and to promote innovation through ICT. The Plan is expected to generate important savings (circa EUR 40 billion in 4-5 years) from the increase in productivity in the public sector.

Other recent institutional developments aiming at creating a responsive administration are the law regulating the 'delegation to the government on mediation and conciliation of civil disputes and trade', which aims at saving SMEs time and costs in case of a dispute, and the law providing an option for cooperative societies to submit an annual communication instead of requiring full annual accounts (both adopted in 2009).

In order to improve infrastructure, a part of the *Funds for Underutilised Areas* (FAS) was committed to design and construction of new infrastructure. With the 2010-2013 *Economic and Financial Planning Document* (DPEF), the Italian government approved measures entailing approximately EUR 30 billion of investments in infrastructures. By the end of 2009, new construction sites were opened for works with a value of roughly EUR 14 billion.

With regard to deregulation, an important law was adopted in 2009, whose aim is to remove obstacles that hinders opening up of markets, promote the development of competition and ensure consumer protection through a closer cooperation between the government and the Competition Authority. The law was designed to overcome anti-competitive regulations often established at regional and local levels.

Italy has made efforts to improve its business environment, especially with regard at the quality of existing regulations though abolishing a high number of obsolete laws. Improving further the quality of new regulations, including by making better use of tools such as *ex ante* impact assessment and consultation, remains an important undertaking in this area. Moreover, an overarching strategy for regulatory reform would help to keep the focus on reducing further the operating costs for businesses, streamlining implementation and better coordinating national and regional governments. Progress has been made towards improving the efficiency of public administration by adopting the law reforming this sector, but its effect will depend on the effective implementation. Furthermore, strengthening competition in the service sector remains an important undertaking to improving the business environment and competitiveness.

3.11.6. Entrepreneurship and SME policy

The business sector in Italy is characterised by a large number of small and medium-sized firms specialised in products that require high-quality design and engineering. Their average size in terms of number of employees is significantly lower than in the EU. Italy scores clearly above the EU average concerning the share of high-growth enterprises and slightly above average concerning time required to start a business, the enterprise survival rate after two years and bank loan conditions deemed acceptable by companies. However, it scores very badly concerning the payment duration by public authorities and clearly below the average concerning early stage financing and the business churn.

Italy has taken a number of measures for alleviating the impact of the crisis on the business sector: a permanent partial deductibility of the regional tax on economic activities (IRAP) from corporate income tax (IRES); the postponement of two deadlines for business tax payments; a tax deduction equal to 50% of the cost between June 2009 and July 2010 for reinvested profits in industrial machinery; and the acceleration of late payments by the state to business for goods and services.

Italy also made largely use of the possibility to grant state aid up to EUR 500 000 under the Temporary State aid Framework. Over EUR 1 billion was made available to SMEs in manufacturing, services, automobile and transport sectors. Moreover, Italy provided guarantees with a budget of EUR 40 million under the Framework.

To foster skills and innovation potential, apart from measures presented above (section on knowledge-intensive production), three other initiatives launched in 2009 are relevant with regard to SMEs. These include the Biennial National Plan for the commercial exploitation of intangible assets by small and medium enterprises, to stimulate innovation and economic growth though use of intellectual property, the Italian Network for Innovation and Technology Transfer to SMEs (RIDITT), conceived as an information hub and a reference point for centres for innovation and technology transfer, and a call for proposals providing grants, to support start-ups in the high and medium-high technology, launched in the framework of the National Operational Programme Research and Competitiveness for the period 2007-2013.

A major undertaking to support the Italian firms specialised in the production of high-quality goods on the global market is the approval in March 2010 of the law on a *Made in Italy* stamp. According to this law, the 'made in Italy' label will be assigned only to those finished products whose manufacturing stages for the most part took place in Italy, in textile, home furniture, shoes, leather and clothes.

Regarding the internationalisation of SMEs, financial support for programmes improving access to foreign markets, development of feasibility studies and technical assistance related to Italian investments abroad is provided under a law adopted in 2008. In addition, a law adopted in 2009 charges the government with coordinating all legislative arrangements related to internationalisation, including exports, promotion of investments, agreements between public organisations and the bank system using foreign bank services. Furthermore, an anti-crisis export promotion plan has been introduced in the framework of the recovery measures, with an overall budget of EUR 185 million for 2009.

Despite measures taken to alleviate the impact of the crisis, the business sector is confronted with difficulties in accessing finance and is suffering the shrink of both global and domestic markets. Facilitating the access of companies to international markets could help offset the decline in demand. The policy response through the export promotion plan, together with the other export supportive measures, seems adequate in this regard. Furthermore, enhancing the capacity of enterprises, particularly SMEs, to grasp global economic changes and respond to global challenges and risks are a concern.

3.11.7. Conclusions

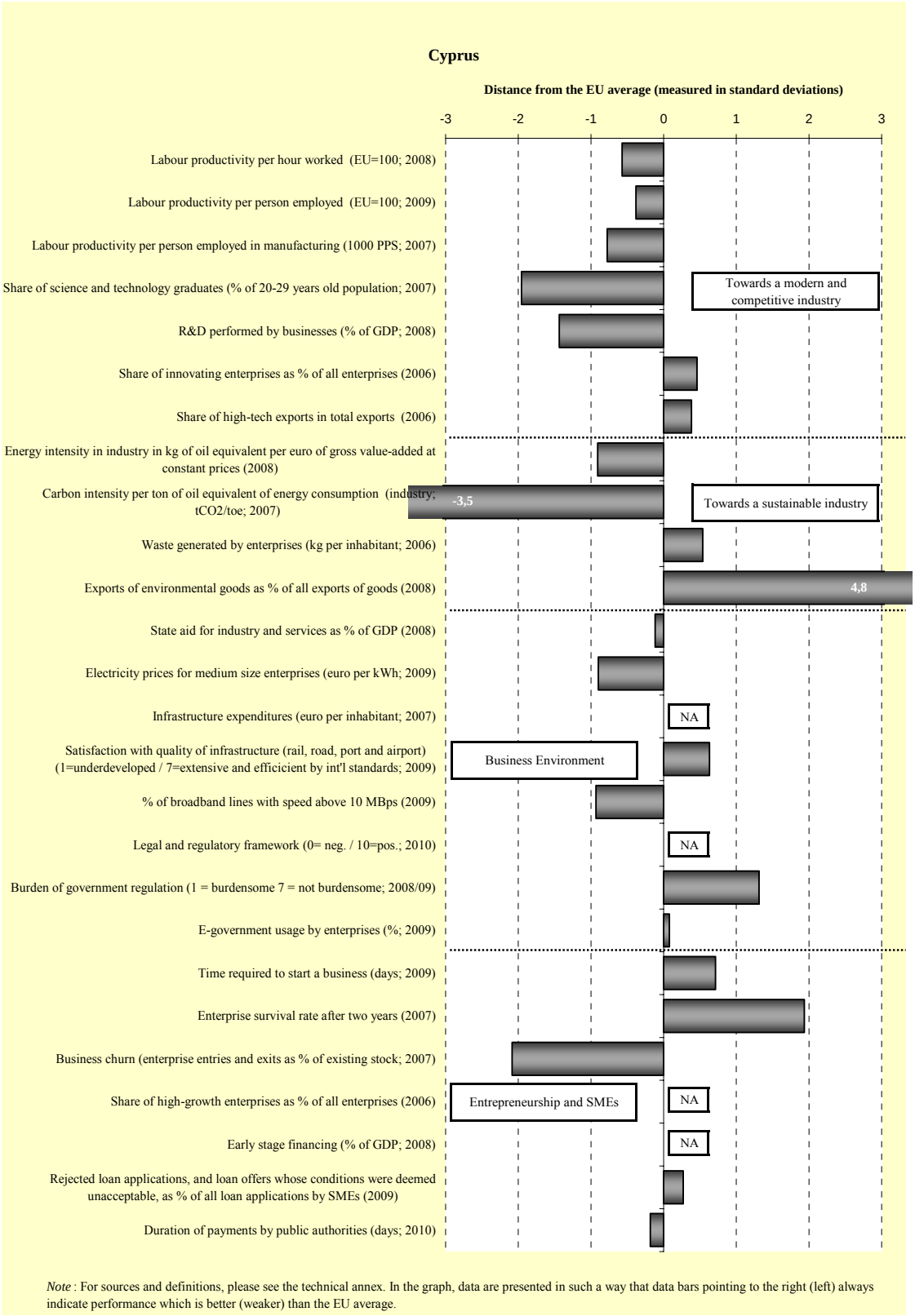
Whilst Italy's short-term priority is to consolidate public finances, a gradual shift of the productive structure towards more high-technology and innovative activities would enhance the country's competitiveness in the medium to long-term.

A number of measures have been adopted with regard to knowledge, innovation and industry. Increasing enterprises' innovation potential, encouraging a higher level of private expenditure on research and innovation activities, as well as an increased focus on key innovation areas and better governance to avoid fragmentation and overlapping between various initiatives could all be useful approaches for Italy.

Considerable efforts have been made to improve the business environment, especially through a range of measures addressing the regulatory quality. Developing an overarching strategy for regulatory reform would help to keep the focus on reducing further the operating costs for businesses, streamlining implementation and better coordinating national and regional governments. In addition, important cross-cutting issues are the shortage of high-skilled labour force, the efficiency and the effectiveness of the public administration at central and local level, the competition framework as well as the efficiency of local public services.

3.12. Cyprus

3.12.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.12.2. Introduction[34]

Cyprus' hourly labour productivity per hour worked reached about 80% of the EU average while it reached 90% per person employed. However, nominal unit labour costs in Cypriote manufacturing increased almost twice as fast as the EU average of 19%, resulting in an overall increase of 36% between 2000 and 2009.

Cyprus faces a chronic competitiveness problem, which is reflected in its large goods trade deficit. Cyprus' real effective exchange rate clearly appreciated between 1999 and 2009 indicating decreased competitiveness. However, this decrease was less pronounced than for the EU on average. Cyprus' trade deficit in goods is by far the largest in the EU if measured as a share in total exports. These developments suggest that the main determinants of the trade deficit are due to structural reasons such as specialisation and linked to low productivity growth. On the other hand, services (73.8% of GDP in 2008) exhibit strong dynamism, reflected in high rates of growth and an expansion of global market share. However, they do not compensate the deficit in the trade of goods.

Cyprus is characterised by a marked but declining specialisation in low skill sectors, while high-intermediate and low-intermediate skill sectors are stable at the average from 1997 to 2007. Cyprus is specialised in low and medium-low technology sectors, and high technology sectors have been growing gradually, from a very low level. Generally speaking Cyprus tends to specialise in sectors having low growth and productivity rates with respect to the EU average.

Manufacturing represents a significantly smaller portion of the economy compared to the EU (8 vs.17% of value added in 2008), specialising in non-metal mineral products, wood products and increasingly food/drinks/tobacco. In the service sector, hotels and restaurants, public administration, financial intermediation and construction are above the EU average (2008 figures).

Employment figures show structural changes taking place in the service sector. Forecasts up to 2020 indicate strong increases in construction, business and other services as well as non-marketed services and stable employment in all other sectors.

Exit from the crisis

Cyprus was affected be the crisis later than most EU members. Manufacturing output in June 2010 was 15% below its pre-crisis level and only 3% higher than at the bottom of the crisis. While in 2008 no problems were reported regarding access to finance, both in 2009 and 2010 domestic credit growth dropped due to the more restrictive lending policies of financial institutions. Sectors most affected by the credit squeeze are manufacturing, construction and tourism. The Cypriot government did not implement specific measures under the Temporary State aid Framework and relies on regular State aid rules.

Specific support measures were introduced to help the tourism and construction industries, consisting of the:

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[34] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

- Increase of the government grant provided to the Cyprus Tourism Organisation (CTO) by EUR 12 million (0.07% of GDP) enabling the CTO to adopt a more extrovert and aggressive strategy to stimulate demand and mitigate the effects of the crisis on tourism.

- Reduction of VAT from 8% to 5% for the hotel industry for the period 1.5.2009 – 30.4.2010 (EUR 15 million).

- Support scheme for *domestic (social*) tourism, i.e. increase of the available budget provided to low income families, pensioners, welfare recipients and people with disabilities for subsidizing vacations at local destinations during the summer period of 2009 (EUR 10 million).

- Reduction of landing fees at airports levied on airline companies for the period 1.4.2009 – 31.12.2009 (EUR 16 million).

- Cancellation of overnight stay fees levied by local authorities on hoteliers for the period 1.4.2009 – 31.12.2009 (EUR 10 million).

3.12.3. Towards an innovative industry

The European Innovation Scoreboard 2008 classifies Cyprus among 'Moderate innovators'. R&D spending and businesses R&D remain at particularly low levels in comparison to GDP in spite of rapid growth in absolute terms; due to the structure of the productive sector, a significant increase of business R&D expenditures is unlikely in the near future.

The government has introduced a series of measures to encourage stronger industry participation in R&D and innovation activities and has reinforced the role of the Research Promotion Foundation. The latter's 2009-2010 programme for calls includes a separate section on research and innovation in the business sector that supports specific research projects, networking, technology transfer and innovation in SMEs. The annual budget for these actions is EUR 8.3 million. The most important action (*new products and services*) targets the phase of development of existing research.

Innovation policy focuses on the utilisation of R&D results, diffusion of new technology and entrepreneurship. It almost exclusively takes the form of direct support; fiscal incentives would not be effective since tax rates are very low anyway. The creation of the 'Mediation Centres for Research and Innovation' targets the design of the intermediation mechanism between SMEs and research organisations, while 'Thematic Innovation Networks' aims directly at the creation of the cooperation networks between enterprises, research institutions and intermediate bodies. Important actions such as the launch of the high-tech business incubator programme and the establishment of the Science and Technology Park are under way.

A parallel scheme under the authority of the ministry for Commerce and Industry aims at upgrading labour productivity by subsidising training and consulting expenditures by businesses having more than 10 employees.

While public research capabilities and innovation policy have been considerably improved over the last decade, the business sector is still considerably under-investing in R&D and innovation. Innovation policy has evolved rapidly but in a rather fragmented way.

3.12.4. Towards a sustainable industry

The energy intensity and the CO2 intensity of the business sector in Cyprus are both high.

Cyprus being heavily dependant on imported oil for its energy supply and having a small and isolated energy grid has set energy efficiency as a top priority alongside addressing climate change. For this purpose, an energy centre that would enable the importation of natural gas to the island is under construction and expected to commence its operation by 2013. The New Support Scheme for electricity generation from large scale units from renewable energy sources (wind and photovoltaic systems, concentrate solar power systems, biomass and biogas installations) was approved by the Council of Ministers in December 2009. The first wind park is being built in the Paphos area, with a capacity of 82MW, amounting to about a third of the targeted energy to be produced from renewable sources by 2015.

Additional incentives schemes encourage energy saving investments in SMEs and households.

The high energy and CO2 intensity of the Cypriot business sector, in combination with the heavy dependence on imported oil for energy generation and a small and isolated energy grid represent a potential risk in case of high volatility in oil and CO2 prices. Promoting energy efficiency and the generation of energy from renewable sources clearly remain strategic priorities for Cyprus.

3.12.5. The business environment

Cyprus offers a generally favourable business environment. Satisfaction with the regulatory burden and the quality of infrastructure is above the EU average. The small size and the relative isolation of the economy pose some challenges regarding the functioning of competition.

In order to strengthen administrative capacity, Cyprus initiated over the period 2008-2009 several initiatives including i.a. the project "*Re-organisation and improvement of the administrative capacity of the Public Administration and Personnel Department*" (PAPD). The Action Plan to facilitate the dissemination of the Performance Assessment System (CAF) in the public sector together with a new Code of Conduct for civil servants is being developed. The new Management Information System (MIS) for the Structural Funds, which went into operation in September 2009, is expected to increase the efficiency of EU funds management and their absorption rate.

The national Action Plan to promote Better Regulation in Cyprus, approved by the Council of Ministers in July 2007 and revised in April 2009, is structured around three pillars: the simplification of the legislation, the reduction of administrative burden and the introduction of an impact assessment which will be realised by a simplified mechanism based on a standard questionnaire and supported by a consultation guide addressed to civil servants. This will help the establishment of a more structural approach towards consultation of stakeholders. Cyprus adopted in 2008 the target of reducing by 20% the administrative burden on businesses by 2012. It is planned to acquire consulting services for the implementation of a pilot project to reduce the administrative burden in the real estate market, especially for planning permissions and building permits.

Usage of eGovernment services by enterprises is still below the EU average in 2009, despite significant progress over the period 2005-2009. The eGovernment policy is embedded in the

National Information Society strategy (revised in 2009). The national eProcurement Platform, completed in February 2009, covers all the phases of the process from eNotification to eInvoicing and is mandatory for all Contracting Authorities. The one-stop-shop to start-up a company started its operation in 2007 and is currently upgraded to serve as the point of single contact foreseen in the Services Directive. The eFiling project, which allows a complete online registration of a new company, started in April 2008 but is not yet completed.

The new strategy to promote ICT uptake by upgrading ICT-infrastructure and expanding broad-band coverage will contribute to the improvement both of the diffusion of information and the functioning of the business environment.

The results of an independent study on the degree of competition in the sector of Professional Services are examined by the Commission for the Protection of Competition (CPC), which will consequently proceed with the necessary actions.

The liberalisation of the energy market is continuing; it is anticipated to be fully liberalised by 2014.

3.12.6. Entrepreneurship and SME policy

The contribution of Cypriot SMEs to the overall economy compared to that of large firms is significantly higher than for the EU average. In particular, the contribution of micro firms to employment is in Cyprus (39%) higher than the European average (30%) and the contribution of the total SME sector to employment (84%) is in Cyprus higher than in the EU on average (67%).

Cyprus continued its efforts to set up a Loan Guarantee Granting Facility to support SMEs that are not able to provide sufficient collateral. In April 2009, the government entered into a Financing Agreement with the European Investment Fund for an amount of EUR 20 million, with a view of providing funds to SMEs. The financial products offered in the Agreement are: a) Micro-loans with co-funding and b) Micro-loans Cash Deposits. In addition, Cyprus introduced schemes (co-financed by ESF) to promote women and youth entrepreneurship through facilitation of access to finance, fostering an entrepreneurship culture and encouraging them to create their own business. The schemes have been amended and included in the new programming period 2007-2013 with total budgets of EUR 5 million and EUR 6 million respectively. An additional scheme (EUR 23 million) supports investments and acquisition of know-how in SMEs active in manufacturing and business services. Finally, one-stop-shops for business registration are operational and cover the recruitment of the first employee.

The main challenge for both general and SME specific measures is the promotion of highly skilled, high productivity SMEs that will increase the economy's competitiveness and promote its diversification.

3.12.7. Conclusions

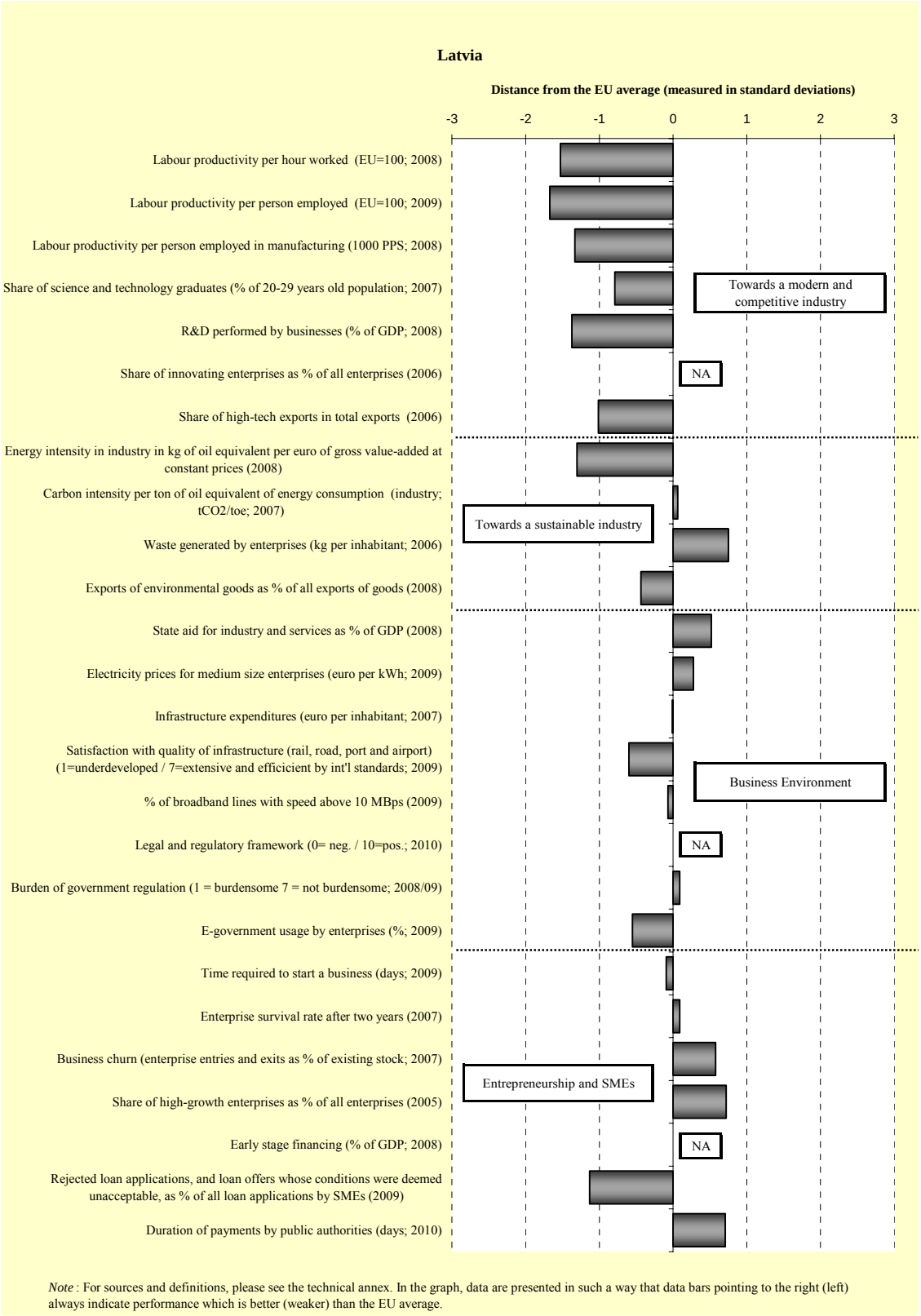
Cyprus faces a chronic competitiveness problem linked to its structural problem of specialisation in low-skills, low technology and low growth sectors, which is reflected in its current account deficit. The policy priority therefore remains to adjust the structure of the economy towards high skill, high growth activities, primarily in services and tourism, through

investing in education, R&D and innovation and encouraging entrepreneurial activity in high value added sectors.

The high energy and CO2 intensity of the Cypriot business sector, in combination the heavy dependence on imported oil for energy generation and a small and isolated energy grid represent a potential risk in case of high volatility in oil and CO2 prices. Promoting energy efficiency and the generation of energy from renewable sources clearly remain strategic priorities for Cyprus.

3.13. Latvia

3.13.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.13.2. Introduction[35]

Measured both per hour and per person, Latvia's labour productivity is below the EU average albeit showing a slight improvement. Labour shortages, aggravated by significant emigration, contributed to the emergence of a wage-price spiral, with increasingly rapid wage growth outstripping productivity in 2005-2007. Inflation rose to very high levels, peaking at 15.4% in 2008. Concomitantly, nominal unit labour costs in Latvian manufacturing increased by 85% between 2000 and 2009 with virtually all of the increase occurring during the second half of the decade. As a result, the overall increase was more than four times the EU average of 19%. As a result, Latvia's competitiveness has seriously suffered. This is confirmed by the real effective exchange rate which by 2009 had appreciated sharply, also compared to the EU average, indicating a significant loss of competitiveness.

In the four years up to 2007, Latvia's real GDP growth averaged over 10% p.a., driven primarily by a credit boom that fed private consumption and real estate investment. Equally, the inflows of FDI, which increased considerably after EU accession, went mainly into the domestic-demand-oriented sectors and the share of manufacturing within total FDI inflows remained tiny. On the other hand, investment by domestic companies in the manufacturing sector was significant over the past decade. This has been driving the restructuring of the manufacturing sector from labour-intensive to more capital-intensive production. Accordingly, the changes within the composition of manufacturing output have been substantial, with significant shifts taking place among its different branches.

Latvia has now embarked on a strategy of significant fiscal consolidation and increase in competitiveness, based on the retention of the current exchange rate and the restoration of competitiveness through structural reforms and internal devaluation. This strategy is reflected in the January 2009 Memorandum of Understanding between the Latvian authorities and the Commission in support of Latvia's programme to maintain domestic and international confidence in the financial system, contribute to the reversal of the cost competitiveness and inflationary trends, as well as to strengthen the economy’s growth potential.

In 2008, Latvia had a trade deficit in all major groups of goods, except wood and articles thereof. This partly reflects the consequences of the recent domestic demand boom, but is also a result of the high share of services in the country's economy and exports. The wood and textile industries, historically the most important export sectors along with the metal industry, were hit by large domestic cost increases between 2004 and 2008. At the same time, the deficit in goods relative to total exports has been decreasing significantly from 2005 to 2009.

The previously high current account deficit was due to a large deficit in trade in goods (spread widely across product categories), traditionally partly counterbalanced by a surplus in trade in services. Despite the deteriorating cost competitiveness, Latvian export performance has been very dynamic: its share in total exports of the EU-27 and the world doubled between 1999 and 2007. This gain has been continuous and widespread across product categories. A number of factors can explain the increase in Latvia's market shares despite the strong cost pressures: better market access and deepening regional trade integration, the high growth of the CIS economies, the still very low level of wages (at around only a quarter of the EU average in

[35] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

2008) and the recent productivity increase, as well as the increase in prices of commodity exports.

The share of manufacturing in Latvia has been considerably below the EU average level (for example, 11% vs. 17% of value added in 2008). Latvia is increasingly specialised in sectors requiring low-intermediate skills, while there has been a decrease in specialisation for the high-intermediate and low skills sectors. There is an increase in specialisation on medium-low technology sectors, and a high degree of specialisation in the low technology sectors. Latvia tends to specialise in sectors, which in the EU as a whole have recorded above average growth over the last ten years. The sectoral specialisation indices of 2000 and 2006 show particular focus on wood and wood products, textiles and clothing, food processing and other manufacturing. In the service sector, wholesale and retail, transport and communication as well as construction had a clear above average weight in 2008. Agriculture and forestry are much more important than for the EU in total. Employment figures for the period 1996-2006 show the decreasing importance of the primary sector as well as manufacturing, and a shift towards service sectors, especially in real estate and other business activities. Forecasts until 2020 expect a further employment increase in business and other services (+32%), as well as continued decline in the primary sector (-15%) and manufacturing (-11%), but also in construction (-28%) and non-marketed services (-9%).

The export product structure of Latvia has become more diversified over the past decade. Latvian exports are still characterised by raw material and labour intensive products, but there has been a favourable shift towards capital and technology intensive products, especially since 2005. Even though the share of low-tech and medium-to-low-tech goods in total exports is still high compared to the other new Member States, exports of capital intensive and easy-to-imitate research intensive goods have increased very rapidly. While the shares of wood, mineral products and textiles in total exports declined, more capital and research intensive segments, such as chemicals, base metals, machinery, and transportation equipment gained share[36]. This observation may suggest that the cost pressures, stemming from rapid wage growth and labour shortage in the previous years of rapid growth, forced Latvian exports in goods to shift towards research and capital intensive segments.

Latvia has an established tradition in services due to its geographic position and a well-developed transit infrastructure. It is interesting to note the relative resilience of Latvian services exports during the economic crisis, despite the high inflation and the appreciation of the lats against some regional currencies. Services exports have been increasing by about 19% p.a. since Latvia joined the EU. Amidst the very severe recession in the first nine months of 2009, the value of services exports reached 56% of that of exports in goods. This was mainly due to the value of services exports dropping only by some 10% y-o-y, whilst the goods exports fell by around 21%. However, even in 2008 the value of services exports was comparable to almost half of the goods exports. Around half of all services exports is in transportation, some 18-19% in tourism and the rest mainly in financial and other business services.

Exit from the crisis

[36] The quality of trade data might be influenced by the difficulty to exclude transit trade. Furthermore, caution is needed in interpreting this data, since the broad classifications do not always capture the true nature of the activity performed in the country.

Manufacturing production fell by 27% between February 2008 and February 2009 as a result of the economic and financial crisis. By July 2010, output had recovered by 20% from the trough. In 2009, mainly due to the rapid correction of the trade deficit and the improvement in the services balance, the current account balance turned into a 9.6% of GDP surplus and it is expected to remain at comparable levels in 2010.

In view of the crisis, the Latvian government introduced *de minimis* aid under the Temporary State aid Framework. More than EUR 80 million was made available to over 120 businesses, mainly SMEs. The beneficiary enterprises are mainly active in manufacturing, services and transport. One individual guarantee case concerned the metal sector. The main problem for business remains access to finance due to the very high collateral requirements. Moreover, there is limited availability of short-term export credit insurance.

In November 2009, the Government approved the report by the Ministry of Economy on Policy Directions for Economic Recovery over the Medium Term. This report proposed the identification of priorities for public support programmes on the basis of the following criteria: competitive enterprises with high growth and export capacity; processing industry sectors with significant contribution to value-added and exports or potential for high future growth and export (food industry; wood industry; chemical industry and pharmaceuticals; electric and optical equipment, machinery and metal processing) and export-oriented service sectors (transport and logistics, tourism and ICT).

3.13.3. Towards an innovative industry

The financial and economic crisis of the country has a profound impact on public policies. The substantial reduction of all public expenditures in 2009 has considerably endangered implementation of a range of R&D and innovation support measures and further advancement of innovation policy as a whole. The European Innovation Scoreboard 2009 identified Latvia as one of the three countries in the catching-up group, with an innovation performance considerably below the EU-27 average, but an above average rate of improvement.

A range of support measures addressing the identified challenges have also been launched in the new planning period of the EU structural funds for 2007–2013. Those include such state aid schemes as ‘Investments in development of micro, small and medium-sized companies in specially supported territories’, ‘Liaison offices for technology transfer’, ‘Development of new products and technologies’, ‘Support for bringing new products and technologies into production’, and ‘High value added investments’. A new nationally funded pre-seed support instrument for innovative business ideas has also been launched. A range of other state aid programmes crucial for the promotion of innovation have been elaborated, yet these are currently on halt due to the budgetary restrictions.

Latvia has so far not leveraged public procurement to boost innovation.

The main remaining challenge is the poor innovation activity of the majority of SMEs, which makes enhancing the innovation capacity and performance of the enterprise sector a clear priority. Latvian companies take almost no advantage of the research potential at universities and state research institutes and science-industry cooperation has been one of the most pressing and persisting challenges in the national innovation system. Given the generally low level of technological development in the private sector, additional emphasis could be put on the promotion of skills and resources that enable application of existing technologies.

3.13.4. Towards a sustainable industry

Latvia's economy is characterised by below average performance in terms of energy intensity of its industry. The measure of exports of environmental goods as a percentage of total exports is also lagging behind.

During the period 2008–2009, Latvia implemented the Environmental Policy Integration Programme, using the EEA financial instrument via two open tenders for subproject applications. Ten projects were approved, including two pilot projects where energy is produced from renewable energy resources that are not widely used in Latvia (biodegradable municipal waste and applications involving solar energy and pellets). In 2009, these pilot projects were approved and their duration runs until January 31, 2011. Work continued on updating recommendations for the promotion of "green procurement" in public administration and local government institutions, as well as for the promotion of environmentally friendly construction standards. Recommendations for three new groups of products/services were also under development. In 2009, the legislative basis for electricity production from renewable energy resources and on pricing procedure was also approved.

The main challenge of Latvia is to decrease the energy intensity of its industry where targeted measures are lacking.

3.13.5. The business environment

Latvia scores slightly above the EU average concerning state aid for industry and services and electricity prices for medium size enterprises, but slightly below average concerning the satisfaction with the quality of infrastructure and the e-government usage by enterprises.

In 2009, a regulation setting common principles for policy planning and *ex ante* impact assessment practice was adopted. Latvia has also drafted a new Construction Law to decrease the number of public institutions involved in the process from five to one and to cut the time required for obtaining a construction permit from 180 days to 60. The draft law was subject to public consultation in the second half of 2009. Latvia is continuing to improve its new Insolvency Law that entered into force in 2008. Amendments were scheduled to make the insolvency process more rapid, flexible and efficient. The Public Procurement Law (June 2009) was amended by altering substantially the requirements for the selection procedure and standardising the required documentation.

In 2009, the e-government programme 2010-2013 was revised, providing for development of system-to-system interfaces for government-to-business e-services to improve the uptake. Since June 1, 2010 the Enterprise Register enables business start-ups to apply simultaneously for VAT registration. However, entrepreneurs are consequently asked to appear in person at the premises of the State Revenue Service (SRS) where an additional questionnaire has to be filled in. On the basis of this questionnaire, a special SRS committee makes a decision whether to grant a VAT number or not. Officially, up to 15 days are needed to obtain a VAT number, but the countdown is started only after the entrepreneur has filled in the SRS questionnaire. Thus, Latvia still does not satisfy the requirements for a fully functional one-stop-shop for business start-ups.

In 2009, Latvia adopted 2010-2016 guidelines for attracting FDI and promoting exports. A specific Action Plan for 2010-2011 was adopted in March 2010. At the same time, the Government adopted its annual Plan for the Improvement of Business Environment, which

envisages 22 measures (38 sub-measures) in the areas of company registration, micro-enterprises, tax administration, real estate, as well as e-procurement and e-government. Eight of the planned measures and 20 sub-measures were already implemented by August 1, 2010.

Despite a significant rise between 2005 and 2009, the use of e-government services by enterprises is still below the EU average. The use of eCommerce by both enterprises and private individuals is also underdeveloped. Another feature of the Latvian economy is that ICT has so far been mainly used for support functions instead of core business activities both in the private and public sectors. Thus, the ICT potential in raising productivity remains largely unexploited.

3.13.6. Entrepreneurship and SME policy

The SME sector in Latvia has a structure which is skewed towards larger size classes, with the percentages of medium- sized and small enterprises much higher than the European averages and the percentage of micro enterprises much lower. The contribution of SMEs to employment (76%) in Latvia is significantly higher than the European average (67%). This is partly due to the particular structure of the SME sector: the relatively few Latvian micro firms contribute less to employment (22%) than EU micro firms do on average (30%) in all the 27 Member States. In 2008, Latvian SMEs accounted for 74% of value added in the non-financial business economy, far above the EU average of 58%.

A programme to promote self-employment and entrepreneurship (co-financed by the European Social Fund) was established in 2009, which provides complete support, including consultations, training, financial loans and grants for starting a business. Since the start of the programme, 101 start-ups have been supported with a total loan amount of LVL 1.57 million, 92 projects were granted additional funding and 435 persons participated in training courses.

A competition "Ideas Cup" has been held annually since 2007 where thousands of applicants submitted their business plans in order to receive mentoring. Since the beginning of the competition about 1500 ideas were entered and 500 persons participated in training. The competition project has received the European Commission's recognition in 2009.

In October 2009, the Government approved a concept paper on support measures to micro-enterprises, aimed at: decreasing business start-up costs; enabling a friendlier tax policy; facilitate bookkeeping and access to finance; as well as promote access to information. In the framework of this initiative, individuals engaged in small business activities may opt for a combined "patent" fee not exceeding EUR 100 per month, instead of personal income tax and social security contributions. A special law on simplified taxation of micro-enterprises is in force since September 1, 2010. The law applies to businesses with an annual turnover below EUR 100,000 and less than five employees. As of May 2010, a series of simplifications have also entered into force as regards company registration, notably a possibility to establish an enterprise with decreased (instant) statutory capital – going as low as EUR 1.43.

The support measures for entrepreneurship also include various financial instruments: loan instruments, guarantees, as well as seed, start-up and risk capital support programmes. For example, the Mortgage and Land Bank programme *"Loans for the Improvement of Enterprise Competitiveness"* accounts for LVL 140.2 million financing. Since the beginning of programme (2008), a total of LVL 106.6 million in loans has been approved, including LVL 38.4 million of loans co-financed from the ERDF. The Latvian Guarantee Agency (LGA) provides credit guarantees and export credit guarantees in the framework of the programme

"Guarantees for the Improvement of Enterprise Competitiveness". By August 31, 2010 the LGA had issued credit guarantees to 136 companies for a total of LVL 51.3 million and export credit guarantees to 29 companies for total amount LVL 1.5 million. In the framework of the *European Investment Fund loan instrument*, investment and working capital loans to SMEs are available. The total funding of this measure is LVL 36.5 million or 0.3% of GDP (the bank financing at least 50% of the credit portfolio) and it is run by two big commercial banks. Finally, there are also two risk capital financing schemes of some LVL 14 million each, one of which for seed and start-up financing.

Access to finance is the most pressing challenge currently faced by Latvian SMEs. In general, their low level of penetration in global value chains is an additional constraint on innovation and growth.

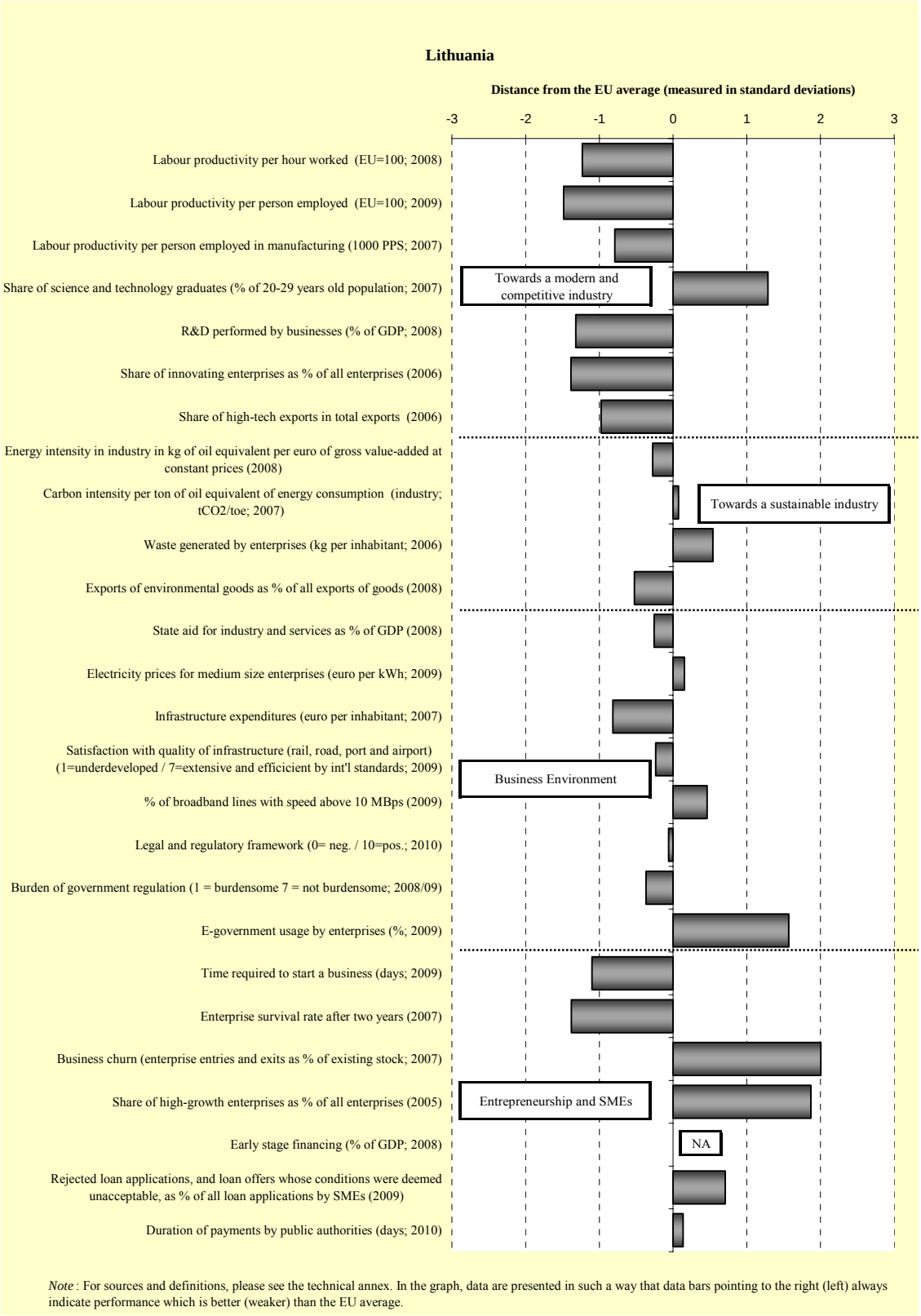
3.13.7. Conclusions

Latvia's cost competitiveness during the overheating years deteriorated. Given that labour-intensive products are still very important in Latvia's goods exports and reflecting the strong service orientation of the economy, it seems to be of paramount importance to respond to this deterioration in cost competitiveness by cost reductions in the short-term and by productivity increases in the longer-term. Labour market conditions have changed dramatically and statistical evidence of nominal wage adjustment is growing. This adjustment of the labour market is expected to ensure the necessary correction of wages and to shift workers to the tradable sector, thereby supporting the recovery, although emigration to other EU Member States is a major risk factor.

An increase in productivity appears to be the only way for Latvia to enjoy higher living standards in the future. Hence, new capital and investment are badly needed exactly at the time when access to finance is particularly difficult. The supply side of the economy could be strengthened by making efficient use of the available EU structural funds in combination with structural reforms aimed at facilitating the shift of resources towards the tradable sector. For example, closer integration of the R&D and innovation policies, further improvement of the regulatory environment, as well as fully exploiting the potential of information and communication technologies in raising productivity, especially as regards core business functions on the basis of broadband, could prove useful. Recent decisions of the Latvian authorities put particular emphasis on specific industry sectors. However, a favourable business environment, which is conducive to investment, innovation and growth, is important for all business actors across the board.

3.14. Lithuania

3.14.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.14.2. Introduction[37]

Lithuania's labour productivity was, measured both per hour and per person, at around 55% of the EU average in 2005 and 2008/2009, increasing slightly in-between. The real effective exchange appreciated significantly between 1999 and 2009, indicating a markedly decreased competitiveness, also compared to the EU average. Nominal unit labour costs in Lithuanian manufacturing remained constant between 2000 and 2005 and increased by 23% between 2005 and 2009, resulting in an overall increase which was somewhat above the EU average of 19%.

Lithuania is specialised in sectors demanding low skills and, increasingly, in low-intermediate skill sectors. This picture is confirmed by a clear trend towards sectors with medium-low technology intensity, a (decreasing) specialisation on low technology sectors and a very low share of higher technology sectors. Lithuania tends to specialise in sectors with a growth rate below the EU average but high growth sectors gain in importance.

Manufacturing plays a slightly bigger role for Lithuania than for the EU in total (18% versus 17% of value added in 2008). Compared to the EU, the manufacturing sector is particularly specialised on textiles and clothing, wood and wood products, food, and other manufacturing. In the service sector, construction, wholesale and retail and transport and communication had a clear above average weight in 2008. Agriculture and forestry are much more important than for the EU in total. Employment figures show that agriculture has dramatically decreased its importance over time, while they have remained relatively stable in manufacturing. There is a clear change in employment distribution towards service sectors, especially construction, wholesale and retail and real estate and business activities. Forecasts until 2020 expect an increase in employment in business and other services (+35%) and in construction (+16%) as well as a continued clear decline in agriculture (-37%) but also in manufacturing (-10%).

Lithuania has a deficit in the trade in goods, with a noteworthy reduction of this deficit from 2005 onwards. In the fourth quarter of 2009 external trade figures turned almost balanced.

Exit from the crisis

The drop of manufacturing output due to the economic and financial crisis amounted to 28%. The production regained 16% in July 2010. The Lithuanian government made more than EUR 70 million available for business to cope with the economic and financial crisis.

The Lithuanian "Economic Stimulus Plan" foresees EUR 30 million (0.1% of GDP) for export credit insurance. About 50% of the contracts have been signed, but only a small fraction of the finances have reached the exporting sector. Two holding funds, the "Business and Investment Guarantee Fund" (INVEGA) and the EIF-managed JEREMIE holding fund with a combined volume of over EUR 400 million (LTL 1.3 billion, or 1.5% of GDP), are directed at improving SMEs' access to finance through several financial engineering measures – loans, guarantees, venture capital funds and a co-investment fund for "business angels". To date, about 50% of the foreseen agreements have been signed and about 18% of the financing extended. Even 65% of guarantees were extended.

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[37] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

Moreover, a system of delayed tax payments for newly-registered SMEs has been introduced, delaying due payments up to 5 years for up to 80% of the calculated tax.

3.14.3. Towards an innovative industry

The current Lithuanian industry structure remains disadvantageous for rapid productivity growth and high value added manufacturing development. Therefore, the major challenge for Lithuania is to upgrade its sustained traditional industries towards high value added, knowledge intensive modern industrial sectors regardless of their position in low-high tech classification.

There have been some attempts recently to improve co-ordination and implementation regarding innovation policy. Several measures directly addressing innovation are aiming to strengthen innovation support infrastructure and develop its institutional capacities, to improve R&D and business co-operation in innovation development, to improve quality of human resources for R&D and innovation and to strengthen the public and private R&D base. EU structural funds are used for seven instruments focussing on both technological and other forms of innovation across different stages of the innovation process, beginning with first ideas over feasibility studies to more 'hard' measures supporting the putting into practice. For all the instruments together, proposals for more than EUR 63 million have been received until 2009.

Direct support for innovation in firms is offered as well. Innovation policy discussion has intensified and addressed innovation culture, cluster development issues, and the problems industry is facing - intensifying brain-drain and international migration of qualified labour. An amendment to the Law on Corporate Income Tax has entered into force in 2009 that encourages companies' investment in R&D by reducing the taxable profit 3 times the investment and reducing the amortization process to 2 years. This includes also Income Tax Relief for Investments into New Technologies; assessable profit for the enterprises could be reduced up to 50 % of expenditures incurred by investing into equipment, means of communication, computers, etc. A key initiative in terms of reorganisation of research and innovation activities is the ongoing establishment of five integrated science, study and business centres – so called Valleys – which are supposed to strengthen the links between the public research base, higher education and businesses and reinforce the strengths of regionally concentrated research and innovation networks.

Key challenges include, first, to improve skills for innovation and entrepreneurial attitudes. One of the major strengths of Lithuania is the relatively high share of S&E graduates. However, there remain concerns about skills shortages in certain fields (e.g. highly skilled human resources in the specific areas of science and technology). Secondly, R&D capabilities in firms, the development of a sound R&D base and closer links with public research and higher education institutions are important. The Lithuanian business sector suffers from the relatively low R&D potential in business, both in terms of the number of researchers in the business sector and in terms of R&D funding. Thirdly, there is a need to develop knowledge-intensive clusters across public knowledge poles.

3.14.4. Towards a sustainable industry

Substantial efforts are needed for Lithuania to reduce its greenhouse gas emissions in line with agreed policies.

With the aim to promote Cleaner Production (CP) technologies the PE Lithuanian Environmental Investment Fund (LAAIF) provides subsidies to environmental projects within the *de minimis* threshold. The main recipients are SMEs that invest in less polluting or waste preventing technology. Funding can reach 60-80 percent and shortens the amortisation period of the investments to a maximum of three years.

In the context of the economic stimulus measures a budget of Litas 1.8 billion was available in 2009 to support renovation and insulation works of public buildings and private apartment blocks, co-financed by EU structural funds (ERDF).

A Green Procurement Implementation Programme from 2007 foresees an increasing share of up to 25% (in 2011) of public procurement for which purchased products and services have to meet established environmental criteria.

3.14.5. The business environment

Policies to systematically improve the business environment are still relatively recent. Lithuania scores clearly above the EU average concerning the e-government usage by enterprises and slightly above average concerning the availability of high-speed broadband lines. However, the country scores below average concerning infrastructure expenditures.

In 2008, Lithuania adopted its National Programme for Better Regulation with the aim of creating the adequate institutional framework and strengthening administrative capacities, improving the quality and efficiency of regulations as well as reducing administrative burden and unjustified compliance costs for businesses. In March 2009, the Government adopted the target of reducing by 30% the administrative burden on businesses by the end of 2011 in the seven priority areas: Tax Administration, Work Relations (Labour Law), Statistics, Environment Protection, Transport, Territorial Planning and Construction and Real Estate Operations. The mapping of the information obligations was completed in the beginning of 2009, but the corresponding baseline measurement to quantify the administrative burdens is delayed to the second half of 2010. An expert body composed equally by representatives of public authorities and businesses (the Sunrise Commission) was established in March 2009 to present concrete proposals to improve the regulatory environment. In 2009-2010, it submitted more than 140 proposals to the Government, out of which 56 have already been implemented, e.g. the process of establishment of individual enterprises and private limited liability companies has been simplified and registration term of legal entities in the Centre of Registers has been shortened from 5 to 3 working days.

eGovernment policy is part of the Lithuanian *Public Administration Development Strategy* until 2010 as well as of the *Information and Knowledge Society Development* 2009-2015. The central eProcurement platform is mandatory and allows contracting authorities to implement the whole online process of public procurement.

Since the closure of the Ignalina nuclear power plant in December 2009 which has turned Lithuania from a net exporter to an importer of electricity, prices have risen by about 30%. At the same time electricity market reforms are implemented including the trading exchange BaltPool for the Baltic region since January 2010, deregulation of electricity tariffs as well as increasing physical and organisational integration in the Nordic and Continental EU energy market. While one link with Estonia (EstLink I) has been in operation since 2007 a number of further interconnections are projected until 2015.

A major challenge lies in the field of energy, namely to ensure long term stable and diversified supply, among others by strengthening links with the energy grids of its EU neighbours. Moreover, consistency between actions resulting from the administrative burden measurement exercise and the Sunrise Commission should be ensured.

3.14.6. Entrepreneurship and SME policy

SMEs in Lithuania tend to be, relatively, larger than in the EU. This is consistent with the good performance in terms of share of high growth enterprises. The total SME sector employs proportionally more people in Lithuania than in the EU.

The national education strategy for 2003-2012 states that entrepreneurship education should be introduced at all levels of the educational system, including secondary, professional and university education, as well as in training programmes for teachers and lecturers. In 2008, the government enacted the National Youth Entrepreneurship Education and Incentive programme with a budget of EUR 35 million until 2012. It focuses on entrepreneurship education, incentives for businesses run by young people and monitoring as an input for governmental institutions and the society. Mentoring and support for entrepreneurs is provided by 31 business information centres and 6 business incubators..

The Economic Stimulus Plan includes policy measures to support SMEs' access to finance, business internationalisation, as well as shifting priorities towards exporting enterprises in granting financing. An export promotion strategy for 2009-2013 and its implementation plan were adopted by the government in 2009.

The one-stop-shop to start-up a company (Centre of Registers) is fully operational. An SME Council was set up in 2008 to advise state authorities on policy developments.

A short term challenge is to ensure SMEs access to finance until Lithuania's overall economic situation turns normal again. A longer term objective would be to promote a culture of entrepreneurship, in particular by implementing the respective reforms in the educational system. Many of the problems addressed by the Better Regulation programme and the Sunrise Commission are also relevant for SMEs, such as reducing burdens related to starting up a business, obtaining licences or building permits.

3.14.7. Conclusions

The most imminent challenge to maintain the competitiveness of Lithuania's economy is to ensure sufficient access to finance for SMEs in order to avoid that generally healthy firms go out of business exclusively because of tight financing conditions resulting from the economic crisis.

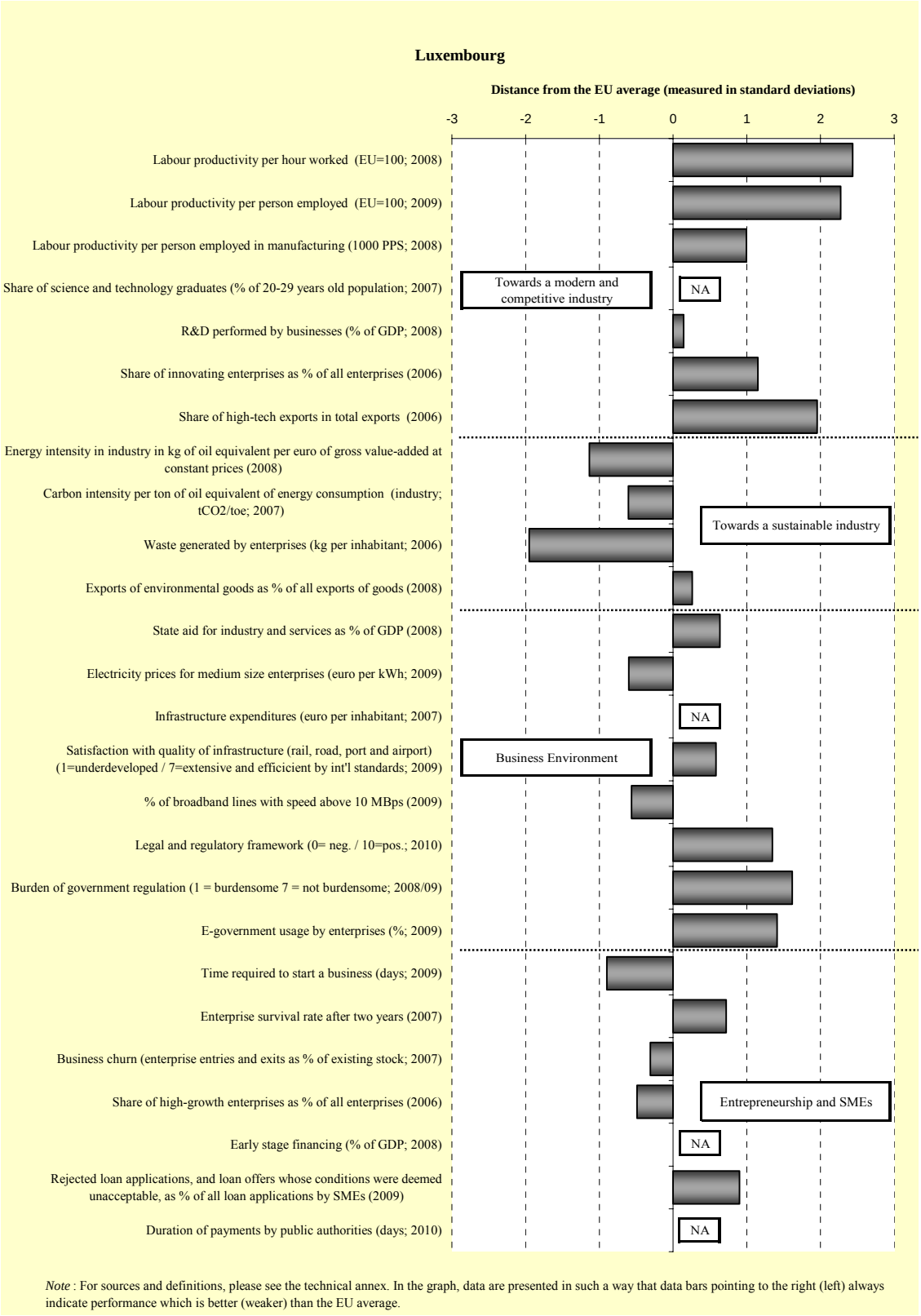
Mid to long term challenges are to promote structural change towards more high value added and knowledge intensive sectors. Appropriate policies include strengthening links between industry and public and private research, increase R&D&I funding and continue the reform of the research system.

The business environment could be continuously improved through efforts reducing administrative burden and unnecessary compliance costs resulting from legislation, through increased investments in infrastructure such as broadband connections, as well as through reforming and liberalising the energy market to ensure low energy prices and energy security.

Finally, a long term challenge is to increase resource efficiency of Lithuanian industry significantly and to transform it into a low carbon economy.

3.15. Luxembourg

3.15.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.15.2. Introduction[38]

Luxembourg's overall excellent competitiveness position is best shown in its labour productivity which is, measured both per hour and per person, clearly the highest in the EU. However, nominal unit labour costs in Luxembourgish manufacturing increased by 45% between 2000 and 2009, thus faster than in any other EU-15 Member State except Italy. As a result, the overall increase was more than twice the EU average of 19%. Luxembourg showed a small deficit in the trade of goods in 2009 but its services account generates very high surpluses.

Luxembourg is specialised in sectors demanding skills. There is also a high degree of specialisation in medium-low technology sectors. This is mirrored in a clear specialisation on sectors that have a relatively high growth rate in the EU in total.

Manufacturing has a much smaller weight in Luxembourg than in the EU in total (9% vs. 17% of value added in 2008). Only basic metal production shows an above average share in manufacturing in 2008. There is, however, very clear specialisation in financial intermediation and, secondarily, in transport and communication. The structural change towards services is also underpinned by employment figures. Forecasts until 2020 expect an increase in employment in business and other services and distribution and transport by some 10% while employment in other sectors might remain stable.

The negative trade balance in manufacturing mainly resulted from deficits in refined petroleum and transport equipment while only basic metal products showed a clear trade surplus. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Luxembourg in 2008 in basic metals products, rubber and plastics and non-metallic mineral products.

Exit from the crisis

Luxembourg faced a very significant reduction of almost 33% in manufacturing output during the crisis. However, manufacturing quickly recovered to 81% of pre-crisis level in June 2010.

In the light of the economic and financial crisis Luxembourg introduced a *de minimis* aid scheme, guarantees and export credits under the Temporary State aid Framework. Beneficiaries are mainly SMEs with the exception of export credits. Conditions on the credit markets improved. In the export credit market problems remain in some sectors, such as construction and automobile. State support for export credits and guarantees therefore still appears to be necessary.

3.15.3. Towards an innovative industry

The European Innovation Scoreboard 2008 (EIS) ranks Luxembourg in the category of Innovation follower with innovation performance above the EU 27 average. The business enterprise sector remains the main contributor to R&D expenditures in Luxembourg.

The main developments in public support for innovation are threefold. Firstly, there is an effort to energise the economic landscape by increasing the number of new companies and

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[38] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

supporting more extensively the innovation process of enterprises. To this end, the new law on RDI will be a key instrument as it will target other types of innovation that were not eligible for funding until now, and will be able to finance consulting services in innovation. The reinforcement of collaboration between the public organisations – in particular public research centres – and business is also targeted by the new measures. Finally, to attract and retain a high-skilled workforce in Luxembourg remains a challenge. A bill on the free movement and immigration was voted to make obtaining of residence permit for third-country nationals easier.

3.15.4. Towards a sustainable industry

Industry in Luxembourg seems to have a higher than average energy intensity, which can be explained to some extent by its specialisation in basic metals production. The waste generated by the enterprise sector is also particularly high; however, this is also due to a statistical particularity, i.e. the high number of workers that are not residents in comparison to total population.

In March 2009, a new National Plan on Sustainable Development was agreed. There is also a White Paper on an overall energy strategy. The Recovery Plan contained a great number of specific measures for energy efficiency and renewable energy (public and private buildings – financial incentives for domestic equipment - fiscal incentives for the purchase of "cleaner" cars (scrapping schemes) etc. The 2006 Action Plan on CO2 reduction will be revised by the end of 2010 and a programme to develop sustainable consumption and production will be set up.

Although explained to some extent by the specialisation of the Luxembourgian industry, its high energy intensity may constitute a cost handicap and a risk factor that more focused action could mitigate.

3.15.5. The business environment

The business environment in Luxemburg is positive, with a legal and regulatory framework and administrative burden clearly above the EU average.

A sectoral target was set in 2009 to reduce by 15% the administrative burden on businesses by 2012. In addition to the "*Entfesselungsplan für Betriebe*", the 2009-2013 Action Plan for Administrative Simplification foresees a range of measures and tools.

eGovernment usage by enterprises in 2009 is clearly above the EU average. eGovernment policy is focused on back-office improvements and the development of specific services and applications requiring trust and security. Luxembourg has a mandatory national eProcurement portal.

To improve transport and telecoms infrastructures, new projects are foreseen, for instance better railway connections with Strasbourg and Saarbrücken, creation of a tram line (development of the Lux tram) and railway connections between airport and city, increase of passenger railway capacity between Luxembourg and Metz – new investments in the electronic telecommunications networks (Lux connect project).

The plan to merge the Competition Inspection and the Competition Council has not been implemented yet and their staffing remains weak. Problems are more visible in the retail

sector but also in regulated professions. Energy prices for enterprises (especially for gas) tend also to be higher than in neighbouring countries, even if not by much.

3.15.6. Entrepreneurship and SME policy

SMEs in Luxembourg tend to be larger than in the EU, with a smaller share of micro enterprises and a larger share of small and medium sized ones. Their contribution to employment follows the same pattern but they are more productive than in the EU as their shares of value added are higher in all size categories.

The national action plan in favour of SMEs of 2008 foresees lower establishment fees for new companies and sets out the objective for a new company to be created within one week. It also foresees to facilitate the creation of new companies and the transfer of existing companies, to stimulate the entrepreneurial spirit, to support SMEs in their cross-border development and to promote the continuous vocational training.

The new trade promotion agency Luxembourg for Business was founded in 2008 to promote trade and international business in the interest of the Luxembourg economy. More specifically, the agency promotes 'Made in Luxembourg' goods and services in foreign markets.

3.15.7. Conclusions

Luxembourg shows relatively high energy intensity in the industry. Improving this parameter could contribute to reduced costs of production. Reducing energy prices through additional infrastructure and a reinforced competition framework would also contribute to lower costs. Nevertheless, these comments should be seen in the light of the specific geographical and economic conditions of the country.

3.16. Hungary

3.16.1. Indicators graph

Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.16.2. Introduction[39]

Hungary's labour productivity, per person employed, reaches some 70% of the EU average. Its growth over the last decade was limited. Hungary showed one of the strongest appreciations of the real effective exchange rate during the last decade, indicating a loss in cost and price competitiveness. Still, nominal unit labour costs in Hungarian manufacturing increased by 25% between 2000 and 2009, thus only somewhat faster than the EU average of 19%. During the last decade Hungary has faced a significant overall competitiveness loss, which has reflected in different international competitiveness rankings as well.

Nevertheless, foreign trade performance has improved considerably since the EU accession. Growth of exports accelerated in 2006 and 2007, while it decelerated in 2008 and exports fell dramatically in the period of crisis. The contribution of net exports (goods and services together) to GDP has been positive since 2004.

Manufacturing plays a bigger role for Hungary than for the EU in total (21% vs. 17% of value added in 2008, before the crisis). The Hungarian economy is specialized in transport equipment and electrical and optical equipment. These subsectors are particularly export-oriented and very important both in output performance and employment. The share of high-tech products in total exports is far above the EU average. Manufacturing of transport equipments, machinery, electrical and optical equipments and chemicals as well as food products have experienced continuously increasing large trade surpluses during the decade. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Hungary in 2007 in electrical and optical equipment and transport equipment.

In the service sector, public sector has the clearest above average weight. The share of gross value added has increased in business services, retail trade and transport in the last years. Agriculture has a bigger role than for the EU average; however, its weight has been diminishing.

Hungary is specialised in sectors demanding low skills. There is, at the same time, a clear and growing specialisation on high technology sectors and, to some extent, medium-high technology sectors. Sectors with a negative growth rate have lost dramatically in importance; medium-high growth sectors are gaining ground. Hungary has experienced significant inflow of FDI in regional comparison, however, foreign enterprises are located overwhelmingly in the developed regions and less developed regions can hardly benefit from the positive spill-overs of FDI.

Exit from the crisis

The Hungarian economy was hit by the crisis especially hard: the GDP fell by 6.3% in 2009. Output and employment in the manufacturing sector dropped significantly as both external and internal (due to drastic fiscal consolidation measures) demand deteriorated. Although there was very limited room for fiscal manoeuvre, the government launched several programmes in order to support SMEs, mostly hit by the crisis. Already at the beginning of the crisis it took measures to alleviate tight credit conditions for the business sector. In

[39] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

general, support to SMEs is a priority of EU Cohesion Policy in the current programming period. Very important resources are available for such enterprise support in Hungary, and these resources have even been increased at request of Hungary in 2009, in the context of the crisis (from EUR 910 million to EUR 1.31 billion in the Economic Development Operational Programme). Also, efforts have been made for preservation and retraining of the workforce in the recession period.

The recovery of the Hungarian economy depends on the revitalizing of the external markets. The output of export-driven industries is anticipated to accelerate faster than that of domestic market oriented sectors, particularly as the internal demand is still negatively affected by the fiscal consolidation. The economy is expected to enter a sustainable growth path only in 2011, based on both net exports and domestic demand.

3.16.3. Towards an innovative industry

Hungary belongs to the "catching up" economies as regards innovation. R&D investments relative to GDP (1%) is far below the EU average. Business R&D spending has been growing since 2004 both in absolute and relative terms; however, it stays still at a low level (0.5% of GDP). In terms of human resources for R&D and innovation there are also bottlenecks, both on the supply and demand sides. Innovation performance, as measured by the Summary Innovation Index, has improved since 2004, but innovation activity remained at a low level: only one fifth of companies are innovative. Moreover, R&D and innovation activities are rather concentrated to large foreign owned enterprises and in a few sectors. Also the regional R&D concentration in the most advanced regions is characteristic for Hungary. High-tech export performance is very favourable in international comparison but is largely attributable to activities of foreign-owned enterprises and thus it does not necessarily reflect the technology-leader position of the sectors.

One of the main problems regarding the Hungarian science, technology and innovation (STI) in the past was its low policy priority. In the context of the current reorganisation of the government structures, the science and technology institutional system was reformed in 2010. A Research and Science Policy Council was established in February 2010 to coordinate and decide on STI policy issues of strategic relevance and related major projects.

A recent government regulation, on "deregulation of R&D" came into force as of 1 June 2010 with the aim of simplifying and improving R&D tender procedures.

The Science, technology and innovation policy strategy (2007-2013) set the target to reach total R&D expenditure of 1.4% and 1.8% of GDP by 2010 and 2013, respectively. In addition to strengthening the role of enterprises in R&D activities, also more budget sources will be available. More than EUR 970 million have been allocated in the Economic Development Operational Programme through the EU Structural Funds for the 2007-2013 period to support R&D and innovation, targeting in particular R&D cooperation between enterprises, universities and research institutes, the establishment of modern research infrastructure and innovation parks and patenting activity. For 2010, the government has earmarked HUF 180 billion for R&D purposes.

The low level of overall innovation activities, especially among domestic SMEs, is the main challenge in this area. Moreover, the links and networks between public and private research are weak or missing and there are still gaps in the quality and quantity of scientific human

resources. Multinationals represent a potential strength for raising innovation capacities more widely if they are better embedded into the regional innovation systems.

3.16.4. Towards a sustainable industry

Environmental sustainability of the Hungarian industry is poor as compared to more matured European economies. The Hungarian industry is more energy intensive than the EU average. The share of renewable energy sources in gross inland energy consumption has grown during the last decade but remains still far from the 2020 target.

The Hungarian National Climate Change Strategy for the period 2008-2025 was adopted in 2008 by the Parliament. The strategy defines targets for the business sector as well: reduction of energy and material consumption, enhancing R&D and innovation activity in green products and services, for instance.

The Renewable Energy Action Plan is currently under finalisation. Measures, such as abolishment of bureaucratic obstacles, elaboration of simpler and faster processes and green procurement, should contribute to the development of the green economy in Hungary.

The Economic Development Operational Programme (EDOP) and the Environment and Energy Operational Programme (EEOP) provide significant financial sources for enabling green development. The EDOP contains actions supporting renewable energy production (wind power plants, geothermal power stations, solar, biogas plants), energy-friendly technology investments as well as implementation of environment management systems. The EEOP supports renewable energy production and it provides financing for companies for improving the energy efficiency of their buildings.

One of the main challenges in this policy area is the reduction of energy intensity of production. Shifting towards a green economy requires not only financial sources and transparent regulatory framework, but also timely and effective implementation from all type of actors.

3.16.5. The business environment

Hungary scores clearly below the EU average in most indicators, with the exception of the e-government usage by enterprises. In particular, it provides a high level of state aid for industry and services. The burden of government regulation is significantly higher than the EU average.

In order to create a better business environment, Hungary has adopted a resolution on Better Regulation in September 2008 that included 17 actions, covering administrative burden reduction, impact assessments, e-government and simplification.

A target of 25% administrative burden reduction by 2012 was set in the 2008. A focused survey of the administrative burdens conducted from November 2008 to June 2009 identified a total of 633 information obligations in the 19 most burdensome focus areas. The measurement of administrative burden (2009) covered the 152 most burdensome Information Obligations (IOs) that were identified. An action plan containing measures which do not require structural transformation and can be quickly implemented was submitted to the Government in 2009. Several concrete measures were taken in 2009, i.e. changes in construction industry regulation, simplifications in grant administration, amendment of the Public Procurement act in favour of SMEs, and simplified company proceedings.

According to a decision adopted in 2008, only submissions comprising an impact assessment may be presented to the Government as from June 2009. In Hungary, it is obligatory to consult representatives of the SME sector on each new regulation. In addition, there are different consultative forums with participation of SME organisations where the most important legislative changes and measures concerning SMEs are discussed, the newest one being the Economic Consultation Forum (GEF). E-consultation is in place. Draft bills, ministerial resolutions and other important policy concepts are made public via the relevant ministries' homepages.

eGovernment is a key element of the administrative reform. The "*e-Public Administration Strategy 2010*", coordinated by the Prime Minister's Office, is implemented to extend the use of ICT in the public sector and public services. Hungary has a non-mandatory electronic procurement platform.

The new Hungarian government plans to further simplify public procurement rules and propose a new legislation in 2011 incorporating additional favourable measures for SMEs.

The one-stop-shop to start-up a company (Country Courts) is operational. Company Court registration procedure includes also registration at the Hungarian Tax and Financial Control Administration (APEH) and the Central Statistical Office (KSH). Since July 1, 2008, the time required for the so called simplified company registration process is one working hour (in accordance with the Act LXI of 2007) as the electronic procedure became compulsory.

Measures aiming at decreasing the administrative burden of enterprises were identified; there is an estimated reduction of HUF 43 billion forecasted for 2010. To achieve tangible results for businesses Hungary could implement the planned actions of the resolution on Better regulation. In addition, the relatively high volume of state aid remains an issue to tackle.

3.16.6. Entrepreneurship and SME policy

The SME sector in Hungary is dominated by micro enterprises that provide more than 70% of employment in the business economy. Hungary scores clearly better than the EU average concerning the time required to start a business and bank loan conditions for companies and slightly above the average concerning the payment duration by public authorities. However, the country scores clearly below the average concerning early stage financing and the enterprise survival rate after two years.

In response to the financial crisis, and to improve the access of SMEs to financing, a package including several financial instruments was gradually introduced since the beginning of 2009. This included preferential loans, guarantees and interest rate subsidies.

Tender schemes financed by the SME Budget Appropriation (KKC) offer grants for SMEs for training and entrepreneurial knowledge, including the promotion of entrepreneurial and financial knowledge for elementary and secondary school students, cross-border activities and enabling Roma entrepreneurs to write applications. The 'Junior Achievement Hungary' manages programmes to improve entrepreneurial skills of students, so that more than 3,000 students can meet with successful entrepreneurs yearly. The national curriculum was modified in 2007 to align it with the recommendations of the EU key competences framework system, including the promotion of entrepreneurial and economic knowledge in education.

The investment promotion system was changed to attract investments to disadvantaged regions. In 2008, a new support programme Export Development Tendering System was launched, which gives 70% non-refundable support for international marketing packages. ITD Hungary, the Hungarian Investment and Trade Development Agency, broadened its services concerning the support of SMEs doing business abroad.

Surviving the crisis is the principal challenge for most SMEs in Hungary. The growing number of bankruptcies is a clear sign of deep concerns. Though the share of rejected SME loan applications is lower than the EU average, access to financing for SMEs, and early stage financing remains a challenge. The share of EU funds directed to SMEs is around 10% of the total. The new Hungarian government plans to reinforce SME support under EU Cohesion Policy.

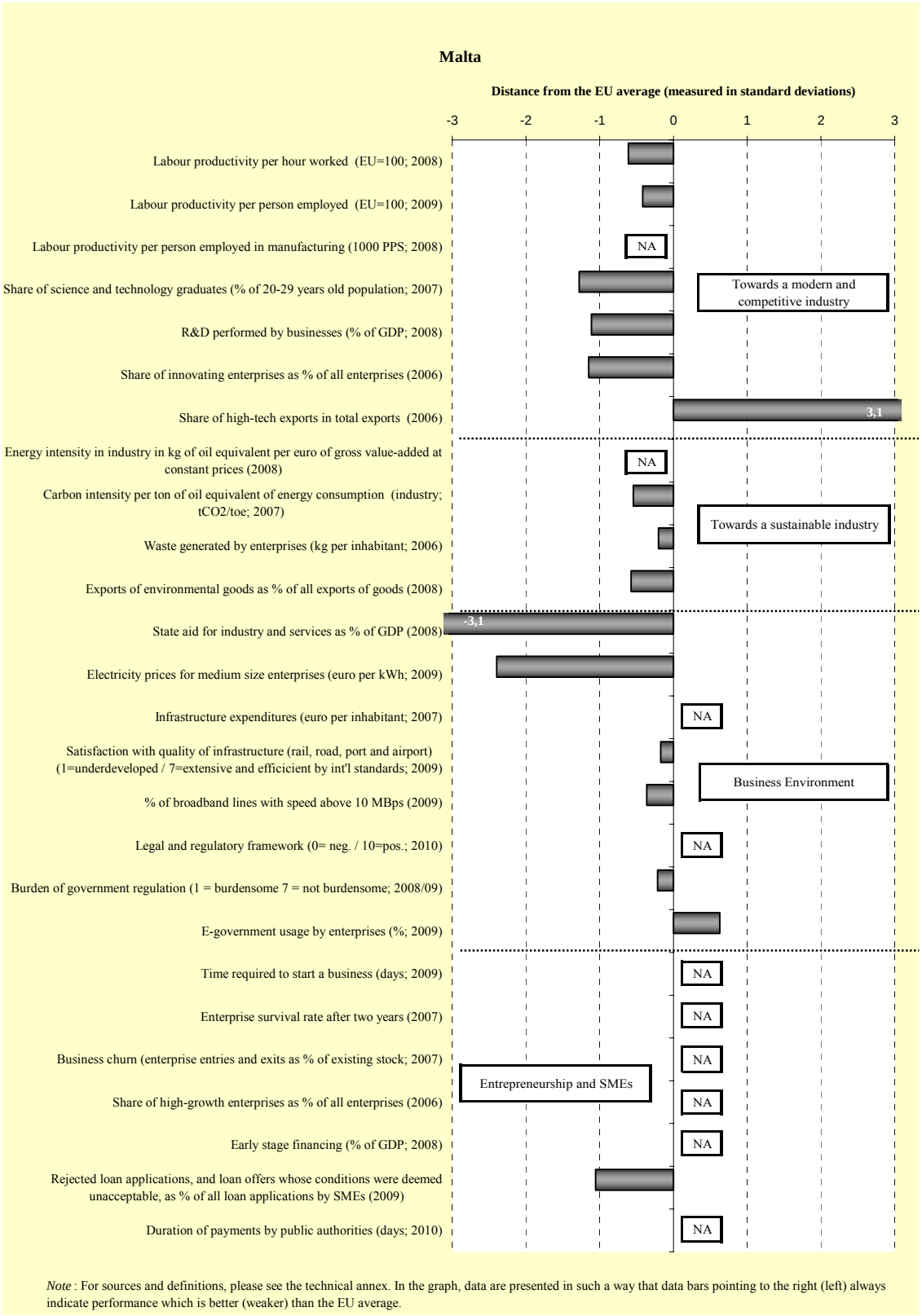
One way to tackle the lack of loans and early stage financing is JEREMIE which is a new, innovative joint initiative developed by the European Commission together with the European Investment Fund and the European Investment Bank (EIB) with the objective to improve access to finance for SMEs and new business creation through financial instruments, such as venture capital funds, loan funds or guarantees funds. Hungary allocated roughly EUR 760 million to repayable financial instruments for SMEs. The system is already set-up and running and financing is being provided to SMEs through innovative financial instruments such as micro-credits or venture capital funds.

3.16.7. Conclusions

The last two years were especially hard for the Hungarian economy as it faced several challenges as a result of structural problems that became more acute due to the crisis. One challenge for the newly elected government is to address the significant drop in both internal and external demand that results in a decreasing output and investment in manufacturing. The programmes launched in order to support SMEs could be maintained and intensified to achieve this. Reallocation of EU funds to SMEs has been an additional response to ease the lack of financing possibilities for small enterprises. Such reallocation can only be successful if further steps are taken to simplify administrative procedures linked to funding opportunities which are currently too burdensome for most companies to effectively apply for funds. The improvement of the business environment, especially the reduction of administrative burden, remains a key issue for most businesses. In order to achieve the goal of 25% reduction by 2012, Hungary would have to take important steps in the short term.

3.17. Malta

3.17.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.17.2. Introduction[40]

Malta's labour productivity was, measured per hour, at some 80% of the EU average in 2005 and 2008. Measured per person, it reached some 90%. Malta's real effective exchange rate appreciated markedly from its 1999 level until 2005 and 2009, indicating a decreased competitiveness; however, this decrease was less pronounced than for the EU in total. Malta shows a clear deficit in the trade of goods.

Malta shows a marked and growing specialisation towards low skill sectors; while there is also some shift to high skill sectors at a low level, the high-intermediate skills sectors have become relatively important and the low-intermediate skills sectors have lost ground. There is a clear specialisation in high and in low technology sector while the middle ground is under-represented. Sectors with a medium-low or negative growth rate in the EU in total have a higher weight in Malta than in the EU in average which is mainly due to the important role of the sectors "hotels and restaurants" whose growth rate was just below the average and fisheries where it was clearly negative. However, while below the EU average, high growth sectors still play a major role.

Manufacturing plays a similar role for Malta than for the EU in total (both at 17% of value added in 2008). Compared to the EU, the manufacturing sector is particularly specialised on electrical and optical equipment, other manufacturing and chemicals; in previous years, textiles and clothing had also have an important weight. In the service sector, "hotels and restaurants" and "transport and communication" had a noteworthy above average weight in 2008. Fishing is much more important than for the EU in total. Employment forecasts until 2020 expect an increase in employment in distribution and transport by some 15% while manufacturing employment might decrease by 10%.

Exit from the crisis

In Malta, the manufacturing output fell by 27% during the crisis. Production regained 11% in July 2010. The most significant problem in the Maltese economy remains the drop of exports. The anti-crisis measures included infrastructure investments (mainly via Structural Funds), some non-budgetary measures and schemes to support directly affected sectors (like tourism) and enterprises (after checking the viability of their investment plans).

The Maltese government set up a *de minimis* aid scheme of EUR 40 million under the Temporary State aid Framework. The aim of the scheme is to provide temporary aid for enterprises affected by the crisis, e.g. reduced orders or lack of credit. 10 enterprises in the manufacturing sector received grants from the scheme. A measure targeted to SMEs and the self-employed aims at expanding their activity and providing the necessary liquidity for investment. Its budgetary cost was around 0.1% of GDP in 2009. Support measures to SMEs in 2010 have been provided through fiscal benefits. A tax credit of 40% (60% for businesses based in the Gozo region) is available to self-employed persons and enterprises with up to 10 employees and to sole traders who make an investment in the next two years in some specific fields (upgrading shop facilities, investing in technology to comply with health, safety and environmental regulations, creating new jobs and recruiting apprentices). The cost of this scheme should amount to less than 0.1% of GDP and it is likely to expire at the end of 2010.

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[40] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

3.17.3. Towards an innovative industry

In terms of innovation performance, Malta remains in the group of 'catching-up' countries. Malta is doing well in terms of sales of new-to-market products and high-tech exports; the latter is, however, mainly going hand in hand with a significant dependency on one large electronics exporter which gives in itself also reason for some concern. Broadband penetration amongst firms has increased steadily. The innovation performance of small and medium-sized enterprises (SMEs) remains a weakness.

However, Malta faces general problems regarding its human capital base since the degree of people with secondary education in the workforce is very low (as is the employment rate in general); in addition, lifelong learning is not broadly used and the share of early-school leavers remains the highest in the EU, although a decline in the number of early-school leavers has been registered over recent years, reflecting in particular the setting up of various education institutions whose mission consists in extending higher vocational and academic training to an increasing proportion of students.

The innovation and research measures include a variety of aid schemes for enterprises that offer higher intensity aid for SMEs, a research and development incentive package for industry, and capacity building for research and innovation infrastructures. Many of these measures are co-financed through the second programming period of structural funds from 2007 to 2013 and target specific sectors – such as ICT, biotechnology and environment – that have been identified as areas offering Malta a comparative advantage.

The innovation challenges are the following: first, financial resources in R&I in niche areas of economic importance are still quite low. The second programming period of structural funds (2007 to 2013) has provided the opportunity to earmark a substantially larger portion of funds for R&I. Second, human resources in science and technology in emerging sectors of the economy could be developed more strongly. The shift to a knowledge-intensive economy requires creating jobs in the high-skills end of the labour market and supporting this with adequately qualified people. Third, the environment to nurture innovation and entrepreneurship amongst businesses, including SMEs, could be strengthened. Finally, sector-specific innovation policies, strategies and measures in areas of national priority could be developed (namely ICT, energy and environment, health and biotech and high value-added manufacturing).

To support a wide-spread knowledge-intensive production, it seems indispensable to raise the qualification level of the workforce, in particular with a view to demographic developments and the expected increase in skill demands.

3.17.4. Towards a sustainable industry

Malta's main problem is the almost complete dependency on imported energy and on only two energy plants; there have been cases of power cuts in the recent past (June 2009, March 2010). So far, there is only limited use of renewables and the viability of the national energy efficiency plan remains unclear. A connection to the European energy grid is a long-planned and progressing project. However, this will still need time; a feasibility study has been finished and the tender period for the actual project closed in July 2010. Malta published an ambitious and comprehensive climate change strategy in 2009. In addition, it seems noteworthy that Malta has - after Luxembourg, Italy and Cyprus - the fourth highest density of car ownership in the EU (and the ninth-highest worldwide) with 557 private cars per 1000

inhabitants; in total, there are close to 300.000 vehicles licensed. This puts significant strains on infrastructure and environment.

Malta has taken many small measures (e.g. grants for solar water heaters, tax credits for photovoltaic, energy saving light bulbs etc) to promote energy efficiency and use of renewables. Malta has embarked on a project to replace all electricity meters with smart meters, a project which is expected to be completed within two years. Efficient use of energy has become a priority also for the enterprises that want to ensure sustainability. There is a 50% grant for industry on investments in renewable resources and energy efficiency (with a minimum investment of EUR 25 000 and not exceeding EUR 200 000). Malta is assisting such a scheme being funded under the ERDF which is open to all enterprises excluding those operating in the financial services, agriculture and fisheries sectors. The allocated budget under this scheme is EUR 10 million. Costs may be claimed on investments in energy saving solutions such as solar heating, thermal insulation, building management systems, energy-saving lighting and alternative energy technologies such as solar power and wind power. The government also offers an investment tax credit to industry on capital invested on photovoltaic panels for energy generation. Malta has taken some initiatives to liberalise public transport systems in an effort to reduce congestion.

Despite several initiatives taken, solar water heaters remain the only significant renewable energy source on the island; even here, figures for new installations dropped in 2009. Thus, the dependence on one main (and imported) energy source which is becoming less popular in other EU Member States (i.e. oil instead of gas) remains a crucial challenge. Malta has the lowest objective in terms of the share of renewable energy to be reached in 2020 (10% vs. 20% for the EU in total) but is lagging far behind in achieving this target.

3.17.5. The business environment

Malta scores above the EU average concerning the e-government usage by enterprises, but clearly below average concerning state aid for industry and services, in 2008, and concerning electricity prices for medium size enterprises. However, 2008 was an exceptional year regarding state aids. Many derogations in the accession treaty expired at the end of 2008 and, in particular, the final support for the shipyards was also accounted for in this year. More generally, state aids were decreasing, from a comparatively high level, from 2005 to 2007.

In October 2008, Malta adopted its *Better Regulation Strategy 2008-2010* which addresses a range of key areas such as capacity building, simplification and administrative burden reduction, quality control and resources. Based on the results of a mapping pilot project conducted in four areas (VAT, company law, financial services and food safety) and extended in a further step to five additional areas (pharmaceutical legislation, working environment/employment relations, fisheries, public procurement, and environment), a reduction target for administrative burdens of 15% by 2012 was set in 2008. Malta does not have an explicit and mandatory e*x ante* impact assessment procedure as such, but all primary legislation requires an accompanying memorandum, the "Legal Notice Checklist" (LNC), revised in 2009.

The Strategic Plan 2009-2012 provides a new, state-of-the-art eGovernment platform, with all public services online by 2012. Malta has a mandatory national eProcurement platform.

While the exceptional situation regarding state aids in 2008 is acknowledged, developments in this field need to be monitored; the previously decreasing trend should continue clearly given

the end of the derogations in the accession treaty. Competition policy and its effectiveness will always remain crucial for Malta, in general, due to the small market size and its isolated position; the strengthening of the institutional structure in this field which has taken place in recent years is welcomed.

3.17.6. Entrepreneurship and SME policy

SMEs in Malta tend to be smaller than in the EU as the share of micro enterprises is higher, employing around 40% of the workforce in Malta against 30% in the EU. Malta has a higher rate of business bank loan demands rejected by banks or bank loan offers to companies that were rejected by the latter. For the rest of the horizontal indicator categories looked at in this report, no data about Malta are available.

Malta Enterprise is the agency responsible for the promotion of foreign investment and industrial development in Malta. It runs several schemes one of which (ERDF Small Start-up Grant Scheme) is specifically aimed at supporting start-ups, particularly innovative start-ups, and is part of a EUR 20 million industry package. In 2009, a local Council Award Scheme has been established with a total budget of EUR 100 000 to support local councils for initiatives that encourage entrepreneurship.

The ERDF International Competitiveness Grant Scheme was launched in 2008 and supports enterprises to expand into new international markets. This scheme reimburses 50% of the marketing costs, trade fair costs, product certification, and the wage costs of a business development manager as part of a specified internationalisation project. The scope of this scheme is to support SMEs to develop their international competitiveness and hence offer their goods and services to other international markets. The ERDF International Competitiveness Grant Scheme forms part of the EUR 20 million Industry Package.

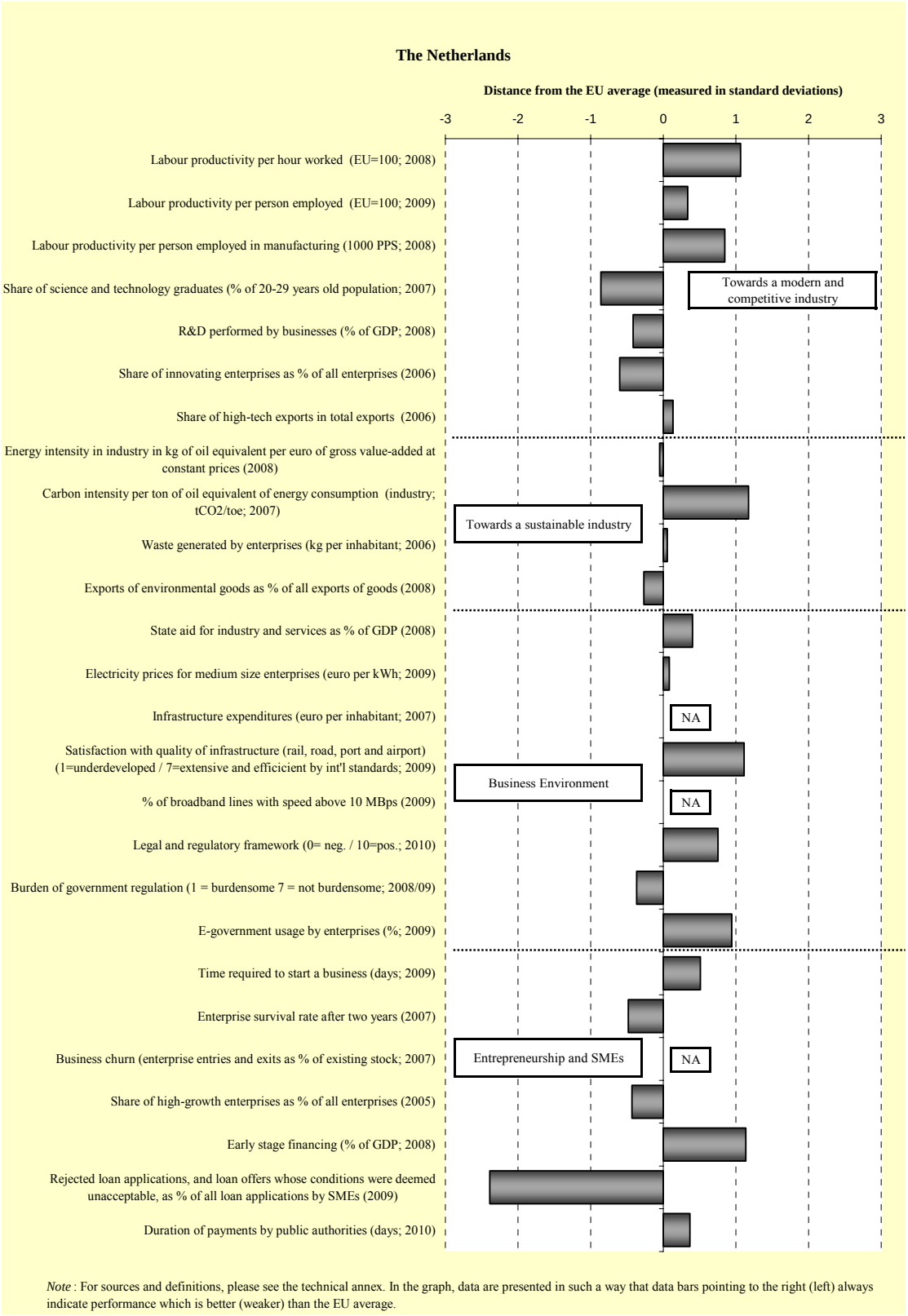
In 2008, only 43 out of 27 682 Maltese enterprises were not SMEs. This means that the general challenges to ensure a diversified energy supply, a well-qualified workforce and an effective competition policy are valid for SMEs as well. The effective implementation of a stream-lined one stop shop for business that was planned in 2009 is of particular importance, given the dominance of SMEs in Malta. The high share of small and, in particular, micro-enterprises can make some activities, e.g. in research or in training, more difficult. It can also blur statistics to some extent as micro-enterprises are often not covered, e.g. in qualitative surveys.

3.17.7. Conclusions

Since Malta is a small island economy without own (fossil) energy sources or other natural resources, it depends on trade and on the efficient and effective development and implementation of its human capital. Given the small market size, the effectiveness of the competition policy and the targeted use of limited resources are crucial; this refers inter alia to investments in the knowledge economy, the development of renewable energy and alternative energy sources and to energy and resource efficiency.

3.18. The Netherlands

3.18.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.18.2. Introduction[41]

The Netherlands enjoys a surplus in its trade of goods and its labour productivity, both per hour and per person, is clearly above the EU average. The Netherlands' real effective exchange rate appreciated markedly between 1999 and 2009, indicating decreased competitiveness; however, this decrease was less pronounced than for the EU on average. Nominal unit labour costs in Dutch manufacturing increased by 16% between 2000 and 2009 with a remarkable acceleration during the second half of the decade. However, the overall increase remained below the EU average of 19%.

The Netherlands is specialised, to some degree, in sectors demanding high-intermediate skills. High and low-intermediate skill sectors have been stable from 1997 to 2007. However, already low specialisation in high technology sectors dropped significantly. Low-technology sectors play an important and growing role. Sectors with negative growth in the EU play a relatively strong role in the Netherlands (3.3% of GDP against 1.6 for the EU as a whole).

Manufacturing has a smaller weight for the Netherlands than for the EU in total (13.5% vs. 17% of value added in 2008). Only refined petroleum and, to a lesser extent, other manufacturing, food/drinks/tobacco and chemicals show an above average share in manufacturing. There is, however, clear specialisation in mining and quarrying (extraction of crude oil and gas) and, to a lesser degree, in refined petroleum, in health and social work, retail and wholesale trade and financial intermediation. Employment figures show the high level of productivity in manufacturing but also the latter's decreasing importance over time. Forecasts until 2020 expect an increase in employment in business and other services by almost 8% while employment in manufacturing might drop by some 9%.

The Netherlands' export and import specialisation patterns are quite similar, with electrical and optical equipment, chemicals and refined petroleum featuring strongly in both cases. It showed a strong export performance in manufacturing. They differ regarding crude oil and gas extraction (export) and transport equipment (import specialisation). The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for the Netherlands in 2008 in refined petroleum, food, drinks and tobacco and electrical and optical equipment. The positive trade balance in manufacturing mainly resulted from surpluses in refined petroleum, chemicals and foods/drinks/tobacco while transport equipment, other manufacturing and wood products showed a trade deficit.

Exit from the crisis

Manufacturing production is still seven percent lower in July 2010 than before the start of the economic and financial crisis. During the peak of the crisis it fell by more than 15%. Some companies in the construction sector received *de minimis* grants under the Temporary State aid Framework. The Dutch government also set up an export credit scheme under the Framework.

The existing guarantee facilities for bank loans and for risk capital for SME's were expanded. Main changes: loan guarantees (50%) available for bigger SME and higher amounts per

[41] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

company and 80% guarantee instead of 50% for guarantees up to € 200.000. For risk capital the maximum guarantee per company was increased from € 2,5 million to € 12,5 million. Also a new temporary 50% guarantee for bank loans to bigger companies was introduced, under which guarantees to an amount of € 1,5 billion can be provided. The maximum guarantee per company is € 75 million. In addition, the government eased the depreciation rules, i.e. a temporary increase in depreciation to an annual rate of 50% for investments in 2009 and 2010. The budgetary cost is projected to be EUR 1¾ billion (0.3% of GDP), evenly spread over 2009 and 2010. This measure is temporary, as it only applies to investments made in 2009 and 2010.

Most of the anti-crisis measures can be expected to have a positive impact on the post-crisis economy.

3.18.3. Towards an innovative industry

According to the European Innovation Scoreboard (EIS) 2008, the Netherlands is an 'innovation follower'. Public R&D expenditure is decreasing while R&D performed by businesses is below the EU average.

There are improvements in terms of public-private linkages and entrepreneurship. However, firms are clearly less innovative than EU average, indicating that the opportunities that newly developed knowledge offer are not fully utilised.

The stimulus package of the government did not contain major new public investments in knowledge and innovation. It included, however, interesting measures to prevent the loss of knowledge workers by R&D intensive firms (e.g. through temporary secondment of R&D personnel to public research institutes). The High Tech Top Projects Scheme with a budget of EUR 100 million helped firms in the high-tech sector to keep their R&D workers by giving support for large R&D projects in the fields like high-tech systems, nano-electronics and automotive.

The subsidy for wage costs of R&D personnel (WBSO) is by far the largest measure in the Dutch innovation policy, with a budgetary weight of EUR 0.5 billion per year and has been broadened and extended. Second in importance is the “Innovation Box” that replaced the "Patent Box" in 2010 with a higher permanent budget (plus EUR 300 million annually. Organisational and managerial innovation is promoted via a “Social innovation toolkit”.

In 2008 the scope of the *innovation voucher* scheme has been enlarged to cover patent (application) costs. In 2009 innovation vouchers were extended to include private innovation vouchers, which can be used for the purchase of knowledge from private organisations. Competitive funding streams for universities (e.g. through research councils) have been strengthened. In addition, personal grants for researchers have been introduced and scholarships for researchers been increased, with improved selection procedures to foster multidisciplinary research.

The Dutch innovation system faces several challenges. A first challenge is to strengthen the innovative capacity of companies. The expenditures on R&D in the private sector remain low and the share of innovative companies in the SME sector is relatively small, in spite of the interesting voucher scheme. The prominence of the services sector may explain these results to some extent.

There are some indications that the governance structures in the innovation policy field are rather complex and constitute a second challenge. For instance, an additional structure has recently been created (the interdepartmental directorate) and the number of programmes is increasing further.

3.18.4. Towards a sustainable industry

There is a strong political commitment to ambitious goals: Energy savings of 2% per year, increasing share of renewable energy to 20% in 2020 and reducing CO2 emissions by 30% by 2020 compared to 1990.

The Dutch energy production is oriented towards gas. A strategy to change this and to promote energy savings and energy efficiency is called "Schoon en zuinig", adopted in 2007, with annual monitoring of 88 actions. EUR 7.5 billion are planned to be spent until 2011 on renewable energy.

An electricity levy has been introduced to fund renewable energy investments. The flight tax has been permanently abolished from 2010, with loss of revenue of EUR 300 million per year. This measure may reduce the tax burden but it also reduces the internalisation of external environmental costs from flying

The current measures will most likely not be sufficient to reach the ambitious policy goals and commitments mentioned above.

3.18.5. The business environment

The Netherlands ranks among Member States with a legal and regulatory environment that highly encourages the competitiveness of enterprises and scores clearly above the EU average concerning the satisfaction with the quality of infrastructure.

Regulatory reform has been on the agenda of the Dutch government for over two decades. The 2007-2011 Regulatory Burden Action Plan has set a quantitative target of 25% reduction of the administrative burdens on businesses to be achieved by 2011. By the end of the first quarter of 2009, a 10.5% net reduction had been achieved. It is planned to further lower the administrative burden by EUR 1 billion. Common Commencement Dates (CCD) have been introduced.

Ex ante impact assessment is mandatory only for central government primary laws. It includes a Business Impact Assessment alongside with the Environmental Impact Assessment, the Practicability Impact Assessment and the Cost-Benefit Analysis. A new approach in the area of the public consultation on new regulations is based on using Internet: a two-year experiment was launched by the Ministry of Justice in summer 2009.

In December 2008, the Netherlands adopted its National Implementation Programme for Better Services and eGovernment which sets out agreements between the national government, provinces, municipalities and water boards to strengthen the use of the eGovernment infrastructure for providing better services to businesses and citizens.

The one-stop-shop as foreseen by the Services Directive was operational by end of 2009. In addition, the Government already introduced a one-stop-shop for hiring the first employee and expanded the services of the Answer for Businesses initiative.

Concerning infrastructure, project investments have been speeded up as part of the anti-crisis measures (concerning bridges, roads, waterways and measures against rising sea level).

No notable challenges have been identified in this policy area.

3.18.6. Entrepreneurship and SME policy

SMEs' contribution to employment in the Netherlands is the same as in the EU (67%) but they tend to be larger on average than in the EU, with the share of small and medium sized enterprises relatively higher. The Netherlands scores clearly above the EU average concerning the time required to start a business and early stage financing, but significantly below average concerning bank loan conditions deemed acceptable by companies and slightly below average concerning the share of high-growth enterprises.

Regarding entrepreneurship skills, the 'National Education and Entrepreneurship Programme' provides subsidies to implement entrepreneurship education across the education system, based on a commitment contained in the national Strategic Agenda for Higher Education. Research and Science Policy. For 2008-2011 € 33 million is allocated to the programme (including primary, secondary and higher education levels).

A dozen 'Centres of Entrepreneurship' were established in co-operation between universities and enterprises to stimulate entrepreneurship among students. In 2009, a pilot programme was established to enable students in higher education to acquire entrepreneurship skills in the United States.

Also, a 'Partnership for Entrepreneurship and Education' was established in 2005. The partnership consists of the Ministry of Economic Affairs and the Education Ministry, along with a range of social partners including education and employers' organisations. The partnership aims to stimulate entrepreneurship in education system, with activities including establishing a platform for good practice and facilitating exchanges of ideas around new initiatives and approaches.

The government intends to limit its focus onto two programmes: one for starting enterprises in a foreign market ('prepare2start') and one for the positioning of enterprises in complex markets ('2g@there'). The aim is to support the internationalisation of 600 SMEs.

Registration of a new company within 3 days is possible and minimum capital requirements have been abolished in 2009. An awareness-raising campaign about the benefits of taking over an existing company has started in 2009.

A micro-credit pilot project started in 2008 and has delivered first results. The rules for business angels have also been eased. The ministry of economy has launched a pilot project on combating late payments.

A programme for fast-growing companies has been launched with the first 43 entrepreneurs. The goal is to support 100 companies over 5 years.

The public procurement agency "Pianoo" is offering trainings to contracting authorities on writing their notifications according to the standards set out in the EU Code of good practice to ease participation of SMEs in public procurement.

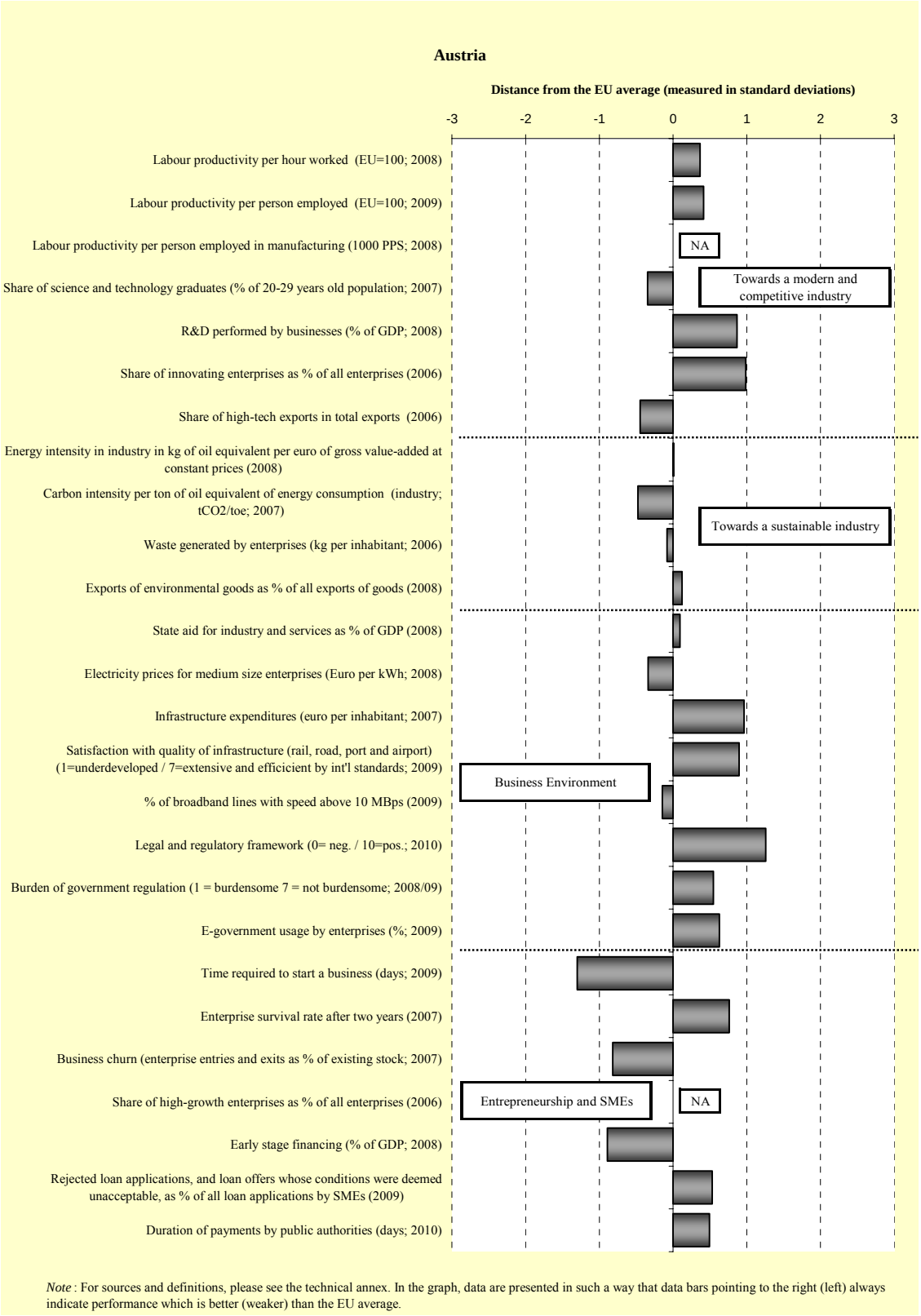
No notable challenges have been identified in this policy area.

3.18.7. Conclusions

The main structural challenges in the Netherlands are to increase private R&D investments and to promote renewable energy and energy efficiency. Several structural measures have been adopted in the framework of the anti-crisis measures. However, it would be worthwhile to review existing policies, including the effectiveness of Dutch tax incentives, and to consider whether new measures could be useful to reinforce FDI inflow into R&D activities. The transition towards a more energy efficient and low carbon economy could be stepped up with further incentives.

3.19. Austria

3.19.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.19.2. Introduction[42]

Austria's labour productivity was, measured per hour and per person employed, markedly above the EU average in 2005 and 2008/9. Austria is one of the very few EU members where the real effective exchange depreciated between 1999 and 2005, indicating increased competitiveness. Although, nominal unit labour costs in Austrian manufacturing increased by 7% between 2000 and 2009 with a remarkable acceleration during the second half of the decade, the overall increase remained significantly below the EU average of 19%.

Austria is specialised in sectors demanding low-intermediate skills and low skill sectors. While the importance of high skill sectors has been stable at a low level from 1997 to 2007, high-intermediate skill sectors are somewhat gaining ground. This trend is supported by a specialisation in sectors with medium-low technology intensity. However, while sectors with a growth rate below EU average dominated in 1995 those with a growth rate moderately above the average clearly gained ground.

Manufacturing plays a bigger role for Austria than for the EU in total (20% vs. 17% of value added in 2008). This is mainly due to specialisation on wood products and, to a lesser extent, non-metallic mineral products, basic metal products and other machinery. In the service sector, only "hotels and restaurants" and "electricity, gas and water supply" have a clear above average weight. The primary sector is smaller than for the EU in total. Employment figures show a high level of productivity in manufacturing and also a gradual shift to service sectors. Forecasts until 2020 expect an increase in employment in business and other services by almost 20% and some losses in manufacturing and the primary sector.

Austria's trade of goods was almost balanced in 2005 and 2009. The small positive trade balance in manufacturing mainly resulted from surpluses in other machinery and, to a lesser extent, basic metal products and wood products while refined petroleum and textiles showed a noteworthy trade deficit. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Austria in 2008 in wood and wood products, pulp, paper and publishing and basic metals products.

Exit from the crisis

Austrian manufacturing output fell by almost 20% in the course of the economic and financial crisis. In June 2010, 11% of that reduction was regained.

In reaction to the economic and financial crisis the government passed two Stimulus Packages in 2008 and 2009. For the years 2009 and 2010 the two packages have a planned overall volume of EUR 3.7 billion. The packages comprise *inter alia* programmes to support SMEs and access to finance, infrastructure investments and R&D funds.

Austria made EUR 300 million *de minimis* aid available under the Temporary State aid Framework of which EUR 128 million were actually paid to about 4000 enterprises. The majority of funds went to SMEs in manufacturing and services sectors for investment purposes and to cover working capital.

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42 For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

The state also facilitated access to financial resources by taking over guarantees for large enterprises, under the condition that the company was financially sound before 1 July 2008. The measure is limited to EUR 10 billion and will expire at the end of 2010. Additional risk capital funds were provided to a small number of start-up companies in order to strengthen equity and enhance financing of growth-oriented investment projects. A participation fund was set up for this purpose to provide direct financing in the form of silent partnerships and mezzanine capital. The budgetary impact is estimated at EUR 40 million both in 2009 and 2010. Export credit facilities were used by a number of exporting SMEs. The measure successfully ensured access to finance, in particular in the area of risk capital. Nevertheless, access to finance will continue to be difficult as a result of stricter lending policies of the financial sector. The situation eased with respect to export credit markets.

The recovery packages contained important infrastructure investments in rail, road, broad-band internet and buildings with a planned budget of more than one billion euro. In addition, additional R&D funds (EUR 100 million) were made available for the years 2009 and 2010.

Austria also introduced a car scrapping scheme. The scheme aimed at supporting the automotive sector and encouraging the replacement of the existing stock of cars with more environmentally friendly ones. The financial burden of this measure was shared equally by the government and the Austrian automotive sector.

3.19.3. Towards an innovative industry

The European Innovation Scoreboard 2008 (EIS 2009) assigns Austria's innovation performance to the group of 'innovation followers'. Based on low-R&D-intensive industries and with a structural bias towards SMEs, the Austrian economy exceeded the EU average in R&D intensity. The number of science and technology graduates and researchers is, however, below the EU average and may hamper innovative potential in the long run.

Beside the continuous overall growth of financial resources made available for R&D activities, the distribution of different financial sources has changed over time. Whereas the relative share of public sources (Federal/States) has decreased over time, the business sector has substantially increased its share. Most interesting is the sharp increase of financial inflow from foreign countries. The basic strength of the Austrian innovation system lies in the strong R&D performance of small and medium-sized enterprises.

In 2009, the Austrian Government launched a process to elaborate a national strategy for research, technology and innovation. The main areas for innovation policies are outlined: the confirmation of the strong commitment to invest more in R&D and to improve indirect funding; to develop a balanced mix between generic and applied research and enhance cooperation between science and business (esp. SMEs); the need for a stable funding of scientific institutions and the promotion of young researchers; the need for more women in R&D and to develop an innovation-friendly market framework (strengthen competition in all areas, public procurement in support of innovation).

However, the concrete measures taken to implement these policies are not always clear. In addition, service sectors and grand social challenges as cross-cutting issues appear to be underrepresented in the overall strategy.

Despite a substantial level of public and private R&D&I funding, the economic structure is still largely based on low R&D intensive sectors. R&D policy has not yet significantly contributed to structural change towards high-tech industry and services.

Among the key challenges that have been identified is "strengthening the formation of human capital" as there is not only an insufficient number of available researchers, but there are also weaknesses of secondary and tertiary education systems. There also seems to be a need to improve the conditions for start-ups, including venture capital. Well-known barriers to entry as well as weak competition policy remain largely unaddressed issues. Efficiency of direct and indirect support could increase. The lack of a clear vision on innovation has produced several inefficiencies, especially in innovation governance (e.g. independence of agencies, lack of communication between ministries involved, programmatic interventions instead of comprehensive).

3.19.4. Towards a sustainable industry

The share of renewable energy production in overall energy consumption is 28.5% which represents the fourth rank in the EU in 2008. In terms of energy intensity the industry is slightly better than the EU weighted average. The emphasis of Austrian climate policy currently lies on energy efficiency of buildings.

The Stimulus Package II foresaw EUR 250 million for measures to increase the thermal efficiency of buildings. Uptake was very rapid, and it is estimated that the funding led to a total investment 6 times greater, as well as a reduction of 5.3 million tons of CO2. A further reduction of 2-3 million tons will result from shifting fuel consumption for vehicles towards bio-fuels and electricity, with a target of 10% by 2020.

In addition, contracts signed under the Joint Implementation/Clean Development Mechanism (JI/CDM) will result in a saving of 8 million tons. For the JI/CDM programme EUR 531 million will be made available up to 2012, with EUR 89 million per year.

Increases in the funding for rail infrastructure of EUR 900 million (EUR 120 million of which included in the Stimulus Package I) will serve not only to stimulate demand, but should also help reduce energy consumption by making rail travel more attractive and efficient, through extensive use of ICT.

In early 2010 the ministries for environment and economy presented a new strategy to meet Austria's energy and environment targets. It aims at increasing the share of renewable energy in total consumption to 34% by 2020, reducing emissions in non-ETS sectors by 16% in relation to 2005 levels and further improving energy efficiency.

Austria announced an additional strategy for research, technology and innovation in energy related fields. Amendments were introduced to the regime on renewable electricity production subsidies to take account of the fast-growing sector, i.e. cap on individual financial support and new technical standards.

Austria has put in place a comprehensive national energy strategy. The main challenge remains its effective implementation.

3.19.5. The business environment

Austria scores above the EU average in almost all indicator categories, in particular concerning the legal and regulatory framework and the quality of infrastructure.

Austria set in 2007 a reduction target for administrative burden of 25% for the burden stemming from national law until 2010 and of 25% for EU induced burden until 2012. In addition to the first simplification plan containing 133 reduction measures to reduce administrative costs for businesses, an updated simplification plan containing approximately 200 measures was published in spring 2009. These represent about 2/3 of the reduction target. Out of these, about 20% have been completed.

Public consultation on new regulations tends to take place on a preliminary draft legal proposal but if it reveals fundamental problems, a second round of consultations is carried out on a revised draft. The recent trend is to use internet consultations in order to increase transparency and to involve a wider public. Each legal act is accompanied by a so-called "Vorblatt" that summarises the reasons for intervention and the main impacts. However, the scope of the impact assessments is rather limited and only in a few cases per year external studies can be used for a more detailed assessment. There is a reform project for the budget that will introduce a requirement as of 2013 to demonstrate in an impact assessment the benefits of expenditures as well (and not only costs). As regards compliance costs for firms, the assessment is generally limited to administrative burden impacts rather than more general costs of regulation. There appears to be no ambition to introduce that in the medium term.

e-Government usage by enterprises in 2009 is above the EU average. Austria has a national e-Procurement platform mandatory for the federal government authorities. The estimated administrative costs reduction of the e-Government applications account for EUR 500 million until the end of 2010 and a further EUR 500 million by 2012.

The one-stop-shop to start-up a company (WKO Gründerservice) is fully operational. The enterprise online portal adopted in March 2009 aims at allowing firms to comply centrally with all information obligations without having to supply any information twice. It is a central gateway for firms who will be able to use it for any interaction with authorities. The implementation is foreseen in three steps until 2012.

Given the favourable business environment compared to the EU average, there are no major challenges to be addressed. The relative weakness in access to broadband lines has been addressed in the context of the Stimulus Package I and a further complementary national programme has been announced for 2010.

3.19.6. Entrepreneurship and SME policy

The Austrian SME sector has a relatively large-scale structure, i.e. the percentage of micro enterprises (88%) is below average while the percentages of small (11%) and medium-sized enterprises (1.7%) are higher the European averages. SMEs employ 67% of the workforce which is in line with the rest of the EU. Austrian SMEs are slightly more productive than the European average.

Austria clearly ranks above the EU average concerning the enterprise survival rate after two years and slightly above the average concerning the payment duration of public authorities and bank loan conditions deemed acceptable by companies. In contrast, Austria scores clearly

below the average concerning business churn and early stage financing in the World Bank ranking. Commission data shows a constant reduction over recent years of the time to start a business to 11 days. It is however still above the EU average of 7.7 days in 2009.

The inheritance and gift tax law expired in 2008 (accounting for EUR 140 million tax yields) which facilitates transfers of businesses. An action programme for SMEs for the years 2007/2008 had been jointly implemented by the Federal Ministry of Economy, Family and Youth (BMWFJ) and the Federal Economic Chamber. It encompassed pilot- measures in the areas 'Young Entrepreneurs', 'Knowledge Management' and 'Future Markets Best Ager and Health' and provided young entrepreneurs with support or coaching in marketing, organisation, controlling and finance.

The implementation of the Small Business Act principles advanced in many areas, notably with respect to export promotion, guarantee schemes and entrepreneurship education. Here, Austria is currently making progress. A national action plan is in preparation, with the objective of expanding entrepreneurship education to all types of secondary education. The strategy also includes activities related to teachers training for entrepreneurship. Moreover, the revised bankruptcy law entered into force in 2010.

SME and entrepreneurship policy is well developed in Austria. Promoting a positive attitude towards entrepreneurship remains a societal challenge that requires further efforts beyond standard business support measures, such as increased efforts in entrepreneurship education.

3.19.7. Conclusions

Overall, the Austrian economy is very competitive and no major bottlenecks exists that hamper competitiveness in the short- to medium term. Issues to be addressed are a reform of the education system with the aim of increasing the number of tertiary level graduates and increasing the number of (start-up) entrepreneurs. In addition, R&D&I policy and spending could better support structural change from an economy dominated by low-R&D-intensive industries requiring low and low-intermediate skills towards an economy based on high-value and high growth sectors that require high skilled labour.

3.20. Poland

3.20.1. Indicators graph

Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.20.2. Introduction[43]

Poland's labour productivity is, measured both per hour and per person, considerably below EU average. While it was stable per hour worked, a slight increase was measured per person. Poland is one of the very few EU members where the real effective exchange rate has not appreciated, remaining almost unchanged since 1999. Nominal unit labour costs in Polish manufacturing declined by 25% between 2000 and 2009 with most of the decline occurring during the first half of the decade, resulting in a 44 percentage point gap compared to the EU average increase of 19%.

Poland is specialised in sectors demanding low skills and in low-intermediate skill sectors. The importance of high-intermediate skill sectors has been increasing from 1997 to 2007 at a low level, while low skill sectors are losing ground. This picture is confirmed by a clear trend towards sectors with medium-low technology intensity, specialisation in low-technology industries and a low share of high-technology sectors. Poland tends to specialise in medium high growth sectors and in sectors with a low or negative growth rate.

Manufacturing plays a slightly bigger role for Poland than for the EU in total (19% vs. 17% of value added in 2008). The manufacturing sector is particularly specialised on wood and wood products, refined petroleum and food. In the service sector, electricity/gas/water supply and wholesale and retail have a clear above average weight. Agriculture and mining/quarrying are much more important than for the EU in total. Employment figures show the low level of productivity in agriculture but also its decreasing importance over time and change towards service sectors. Forecasts until 2020 expect an increase in employment in business and other services (+39%) and in distribution and transport (+12%), as well as a clear decline in primary sector (-36%) and manufacturing (-8%).

Poland shows a small deficit in the trade of goods. The negative trade balance in manufacturing mainly resulted from deficits in chemicals, electrical and optical equipment and other machinery while food, drinks and tobacco, transport equipment and other manufacturing showed a noteworthy trade surplus. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Poland in 2008 in wood and wood products and other manufacturing.

Exit from the crisis

Poland was less severely hit by the economic and financial crisis and managed to avoid GDP recession. Still, manufacturing output dropped by 17%. This output reduction was, however, almost completely regained by July 2010. In contrast, bankruptcies increased by 120% in 2010 compared to January 2009. Further difficulties are expected in the steel and construction sectors as well as the food industry. Poland supplied de minimis aid under the Temporary State Aid Framework mostly to SMEs in the manufacturing, automobile and services sectors.

3.20.3. Towards an innovative industry

Compared with other European countries, Poland is not one of the most innovative economies. Nonetheless, the level of investment in innovation is raising. Nevertheless, it

[43] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

remains that Polish companies do not sufficiently invest in innovation T and tend to focus their investments on new machinery and equipment.

The analysis of the current policy mix confirms its horizontal approach which can be described as offering generic rather than sector-specific support to innovation. The financial support comes mainly form the structural funds through the Operational Programme – Innovative Economy and the Regional Operational Programmes. Some additional funding to SMEs is provided through state programmes and projects, such as: "Bon na innowacje" (co-financing development of innovative products or technologies), preferential loans for investments in innovation, and technological credits granted by Bank Gospodarstwa Krajowego. Until June 2009, there were practically no long-term research agendas and only recently has the National R&D Centre launched calls for tenders for three large strategic projects. This can be considered as a positive development in improving the existing innovation policy mix, by the launching of programmes that had not been previously supported. Taking into account the budget allocations, the main focus seems to be on increasing business R&D and implementation of new technologies.

Important challenges remain: (a) stimulate and deepen innovation internal capacities of Polish companies; (b) improve science-industry cooperation especially in sectors that have already invested significantly in R&D, not excluding the best projects in other sectors that show the biggest potential for change; (c) promote multidisciplinary profile skills for innovation in order to ensure that the supply of innovation skills meets the industry demand.

3.20.4. Towards a sustainable industry

The current structure of the industry and use of older technologies contribute to higher energy and carbon intensity. Poland is performing worse than the EU average in the area of waste generation and share of environmental goods in export. What is more, Poland has taken few steps to use the crisis to green the economy and it seems that the commitment to fight climate change is still perceived more as a burden than an opportunity.

Poland is increasing public investment in renewable energy sources by 0.1-0.2% of GDP in the period 2009-2012. The increase of spending on renewable energies is a positive development. This action is expected to produce investment worth EUR 250-800 million, boosting demand in the construction sector.

At the end of 2009 the Parliament adopted amendments to the Act on Energy law, which addressed some of the problems related to development of energy from renewable sources.

In addition, in July 2009, the Polish parliament adopted the Act on the Management System for Greenhouse Gas Emissions or Other Substances. Its main objective is to use the surplus Assigned Amount Units, granted to Poland under the Kyoto Protocol, to support a national system of “green investments”. This law sets up the National Centre for Emission Balancing and Management that will be responsible for the management of the National Emission Rights Register.

Poland has high expectations for the Carbon Capture Storage technologies that could make its energy production from coal much more ecological. Consequently, relevant legislation as well as research on potential deployment of these technologies is underway. Poland has even launched a demonstration project for an energy power plant.

According to the negotiated agreement with the EU, by 2020 15% of energy consumption in Poland should come from renewable resources i.e. (5% less than the target for the EU). However, taking into account that at present only 7% of energy consumption come form renewable sources, even this objective might be difficult to reach, if no additional incentives are introduced. Furthermore, regulating the Polish waste management system would improve the functioning of the market of waste treatment at municipal and national level.

3.20.5. The business environment

Poland scores slightly above the EU average concerning the electricity prices for medium size enterprises, but clearly below the EU average in all other indicator categories, in particular concerning the satisfaction with the quality of infrastructure.

In March 2008, Poland adopted the target of reducing by 25% the administrative burden on businesses until 2010 in seven priory areas: environment, land development plan, social security, economic activity law, hallmarking law, employment law, and tourist services. In the first phase, the mapping of information obligations (IO) in these priory areas resulted in the identification of over 700 IOs in 50 statues. The next phase, the measurement of costs of each IOs, led to the preparation of a summary report. On this basis will be developed concrete solutions for reducing the administrative burden to be proposed for December 2010.

The Regulatory Reform Programme for 2009-2011 promotes preparation of better Impact Assessments, including impacts on SMEs. Training on impact assessment preparation, intended for almost 3 000 public officials from different ministries, started in December 2009. The programme also strengthens the role of public consultations in new regulations. Public consultation with stakeholders on new regulations may be open consultations, or may target stakeholders of a certain profile (business associations, social partners, trade unions and trilateral commission). However, there is no single institution which would represent SMEs. A manual for conducing public consultations was adopted in July 2009.

eGovernment usage by enterprises in 2009 is below the EU average and has slightly decreased since 2005. eGovernment policy is part of a wider Information Society strategy until 2013 (adopted in 2008) and is focused on improving basic infrastructure across all levels of government. Poland doesn't have a central e Procurement infrastructure, but only a non-mandatory Public Procurement Office (PPO) Portal managed by the Public Procurement Office.

Positive developments concerning investments in transport and energy infrastructure can be noted especially in the road sector, where many transport projects were advanced during 2009. Furthermore, a new flexible model for funding road investments was introduced to ensure a more effective use of funding. A point of concern is the project pipeline in the railway sector where institutional capacity may be insufficient.

Progress was made in energy market competition and energy infrastructure. Poland's energy market has been rather isolated from the rest of the EU and steps towards energy market reforms have been taken at a relatively slow rate. In recent months, Poland has made some progress towards improving the regulatory regime for third party access to underground gas storages. However, third party access to the transmission network is still not fully complied with, particularly as regards the important Yamal pipeline. More efforts may be needed to open up the Polish energy market to outside competition and to increase the market's flexibility.

Business regulations and infrastructure remain to be improved. The challenge for the government is to implement in a systematic way the regulatory reform programme giving it a deserved political priority at all levels of the administration and in partnership, not in competition, with the parliament. The expansion of eGovernment services should lead to additional reduction of the bureaucratic burden. The infrastructure is still a bottleneck to the economic development of the country. To tackle this challenge, significant efforts would have to be undertaken to cover the existing gaps in both transport and energy. In the energy field there is an urgent need to renew generation capacities and to upgrade and expand the grid. To achieve significant progress, more funds and human resources will have to be allocated to all infrastructure projects. The next round of infrastructure planning could be more explicitly linked to the needs of economic development of the country.

3.20.6. Entrepreneurship and SME policy

Poland scores slightly above the EU average concerning the payment duration by public authorities, but clearly below average concerning time required to start a business and early stage financing. Some other data are not available for Poland. There is a similar share of SMEs in Poland compared to the EU. The main difference consists of a higher share of micro enterprises at the expense of small ones. It could be an enterprise growth issue or the artificial effect of self-employment visible in the statistics in the form of micro enterprises.

The action 'Support and promotion of entrepreneurship and self- employment', covered in the EU Structural Fund programme for human capital, promotes entrepreneurial attitudes and at entrepreneurship among women and minorities. It involves financial support and advisory assistance during the start-up phase and early operations. The budget is about EUR 400 million for the period of 2007-2013.

The one-stop-shop was introduced in March 2009. It brings together the municipal/local administration, the tax office, the Central Statistical Office (GUS) and the Social Insurance Institution (ZUS). The possibility of setting-up a company fully online (zero-stop shop) is foreseen to be developed after the adoption of an integrated IT solution planned only for July 2011.

In 2009 Ministries of Economy and of Justice launched a program for overcoming the stigma of business failure and for activities on a second chance policy. The program includes (1) counteracting bankruptcy of enterprises, (2) fast and efficient bankruptcy proceeding, (3) second chance policy and (4) promotion and information campaign.

The 'Passport to Export' initiative supports SMEs in the European market and promotes exports as a part of the Innovative Economy Operational Programme. The budget for the period 2007-2013 is ca. EUR 410 million largely from EU Structural funds. Services offered include: advice, computer platform with business information, subsidies for international business trips and fairs, and for obtaining documentation required for market products or services in a given foreign market.

The availability of export finance has been increased, mainly delivered via Bank Gospodarstwa Krajowego (BGK) and Export Credit Insurance Corporation (KUKE), including export loans in the pre- and post-shipment phases, insurance and guarantees connected with loans for export activities, including foreign exchange risk insurance and foreign investment risk insurance.

The entrepreneurship attitude is one of Poland's main strengths. Almost all remaining areas of SME policies could, however, be improved. Foremost, the general business environment could be made more business friendly. A further increase of the efficiency of business registration procedures and a reduction of its costs would be helpful. The bankruptcy procedures should be accelerated as a result of the programme of the Ministries of Economy and of Justice. These general business environment measures, including a duly implemented Regulatory Reform Programme 2009-2011, will yield significant benefits to SMEs.

SMEs in Poland have limited access to finance, especially at early stage. It has to be also analysed why the government offered guarantee funds have a relatively limited use. The challenge can thus be to improve the use of the current system by simplifying it and making the information about financing modes more easily available.

SMEs in Poland are less innovation and less internationally oriented than their EU peers. The government should continue activities in this domain, while focussing only on the most effective measures and achieving a balance between the general innovation measures, frequently targeting larger firms, and SME measures.

3.20.7. Conclusions

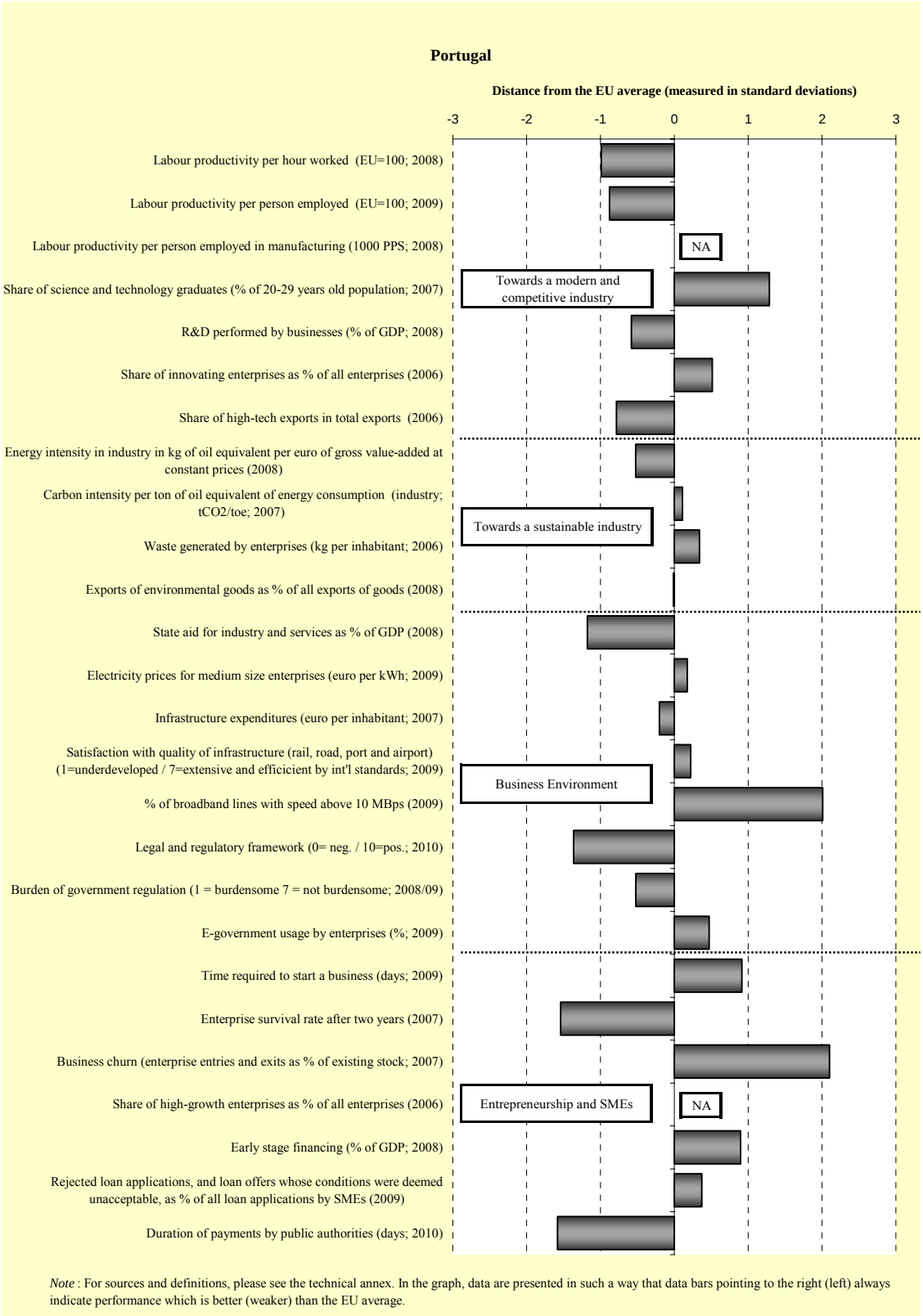
The Polish economy stood well during the crisis. It could rely on its still flourishing domestic market, good prudential financial market regulations and a floating exchange rate. Poland benefits also from its position as a manufacturing hub for Europe. Yet, the country faces still several challenges and could fare even better with improved policies.

Entrepreneurs keep on complaining about persistent administrative burden and an inefficient administration apparatus. Transport infrastructure is not yet sufficiently developed to match the raising transportation needs of an expanding economy. Similarly the energy infrastructure is not adequate to facilitate competition, to provide long term stable and secure electricity provision, and to support the environment friendly upgrade of the energy system. The economy moves forward and, as it develops, the lack of innovation becomes progressively a more important challenge to further long term growth.

More efficient governance would improve the general business environment. This would include simpler and more transparent regulations and a steadily improved efficiency of public administration and of the judiciary. Better governance would best go hand in hand with well developed infrastructure addressing both transport and energy. The latter will need to be upgraded especially to meet the environment challenges and to replace the obsolete generation capacity. Finally, adopting new technologies would help Poland to keep its economic activity up and to cope with external competition. For this to happen, industry would have to invest more in innovation. Focussed support and smart policies will be necessary to develop growth poles, including measures that will more effectively link universities with industry.

3.21. Portugal

3.21.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.21.2. Introduction[44]

Despite some recent improvements, the Portuguese economy continues to suffer from an overall low productivity and weak competitiveness position. Portugal has recorded persistent sizeable current account deficits in the current decade (despite important and increasing services trade surpluses).

Portugal's labour productivity (measured per hour) represents around 60% of the EU average. Measured per person, it reaches almost 75%. The real effective exchange rate continued to appreciate in the 1st half of the current decade but afterwards (as from 2006) there appears to be only a moderate deterioration in cost competitiveness. In parallel, nominal unit labour costs in Portuguese manufacturing increased by 13% between 2000 and 2009, thus remaining 6 percentage points below the EU average of 19%.

As regards goods, Portugal tends to specialise in sectors with low or negative growth rates. There is also a relatively high degree of specialisation in sectors requiring low skills. Regarding the technology-intensity, there is a clear underrepresentation of high and medium-high sectors and a still relatively high specialisation in low technology sectors. Nevertheless, specialisation has increased in sectors of medium and high technological intensity, in tandem with an improvement in the technological content of output in sectors classified as traditional.

In the last 10 years, there was a chronic deficit in the trade of goods, manufacturing exports lost market shares overall and remained concentrated in small number of countries, the reduction observed in the exports over-specialisation in low technology sectors was followed by a modest, partial catching-up in sectors of low-medium and medium-high technology.Manufacturing plays a smaller role for Portugal than for the EU in total (14% vs. 17% of value added in 2008). Despite the considerable restructuring and convergence towards the EU average, the manufacturing sector is still particularly specialised on leather and footwear and on textiles and clothing. In the service sector, hotels and restaurants, public administration, education and financial intermediation have a noteworthy weight above the EU average.

Employment figures show the very low level of productivity in agriculture but also its decreasing importance over time and a structural change towards service sectors, trends likely to continue in the future.

The negative trade balance in manufacturing mainly resulted from deficits in chemicals, electrical and optical equipment, basic metal products and transport equipment while only textiles and clothing showed a noteworthy trade surplus. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Portugal in 2006 in wood and wood products, leather and footwear and textiles and clothing.

As for services, Portugal has shown competitive advantage in tourism, but also in transportation services, construction and other services rendered to companies.

Exit from the crisis

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44 For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

In Portugal, manufacturing output fell by more than 20% in the course of the economic and financial crisis. In July 2010, manufacturing output stands at 85% of pre-crisis level. Several measures were taken aimed at helping firms to cope with the severe market conditions, including targeted support to SMEs and increasing public investment.

Access to finance was eased since July 2008 by subsidising credit lines for additional funding for SMEs (subsidised interests and provision of part of collateral through the guarantee mechanisms of the National Mutual Guarantee System), for a total amount of over EUR 4 billion, implying a cost for the government of 0.1% of GDP. Before end 2009, almost the whole amount had been used (the credit granted under these lines in 2009 may have an impact on concerned enterprises' activities still in 2010).

On 8 June 2010, a new credit line (PME Invest VI) for SMEs of EUR 1.25 billion was created (including EUR 450 million to support exporting companies and EUR 350 million supporting micro and small companies). Altogether, these initiatives already allowed 50 000 firms to access to credit (over EUR 5.7 billion in total).

The regime of guarantees requested was streamlined and VAT reimbursements were speeded-up (from 90 to 60 days in the general regime or 30 days in the monthly regime) as from the 1st July 2010. SMEs with profits below EUR 2 million are exempted from the extraordinary corporate tax increase of 2.5% adopted on 30 June 2010 for 2010 and 2011.

Support to export credit insurance mechanisms was enhanced. This measure aimed at temporarily guaranteeing conditions for SMEs to develop their trade activity in external markets in 2009 after the slump in world trade recorded in late 2008, providing them with additional credit risk coverage for sales up to a total of EUR 4 billion (about 2½% of GDP) and implying a fiscal cost of 0.01% of GDP.

These measures helped in achieving the positive developments in net-exports recorded in the recent months. The data available for the first four months of 2010, indicate that trade flows have been partly recovering from the significant losses verified in the previous five quarters, with exports outperforming imports, with obvious beneficial effects: on the reduction of the current account deficit and growth (GDP increased by 1.8% y-o-y in the 1st quarter of 2010).

3.21.3. Towards an innovative industry

The European Innovation scoreboard (EIS) 2009 data show that Portugal has continued to improve its overall innovation performance and is amongst the fast growing 'Moderate innovators' countries, a group joined since 2008, as in 2007 Portugal was still among the 'Catching-up countries'). Portugal made considerable progress in many areas (such as human resources or business R&D) but still reveals relative weaknesses in a number of areas (e.g. business R&D).

Important structural efforts to boost innovation encompass the Technological Plan, covering several measures aimed at strengthening networking and competitiveness factors among business, individuals, territories and the creation of eleven competitiveness poles and eight clusters – ranging from information technologies and communication to energy and health, among others.

Against the background of the crisis, there was an increase in the corporate tax credit for R&D expenses (one of the most generous regimes in the OECD countries) and there was a

reinforcement of the capital of FINOVA (guarantee and interest rate sponsored credit line for innovation in micro and small firms). At the same time, numerous structural measures to support R&D and Innovation activities are being undertaken such as: reinforcing the support to R&D in different consortia between firms and science and technology entities; set up of the international Iberian Nanotechnology laboratory in Braga in July 2009.

A number of challenges can be identified. These include the following: first strengthening skills, human capital and the dynamic cross-linkages between the education and research systems and the corporate sector; second fostering the emergence and establishment of new companies, both domestic and foreign-owned, to promote employment, particularly in knowledge intensive activities; and third strengthening of SMEs in-house capabilities.

3.21.4. Towards a sustainable industry

The national strategy for energy 2020, recently adopted on 15 April 2010, updates the strategy defined in 2005 and provides an integrated and detailed framework of measures for promoting: renewable energy, energy efficiency and associated eco-industries, competition and diversification of primary sources of energy, security of supply, reduction of energy dependence and its overall environmental impact and to achieve the climate change and sustainable growth goals.

Several important measures were implemented for promoting energy efficiency, renewable energy and the development of associated eco-industries, such as: the set up on 20 May 2010 of a the energy efficiency fund aimed at supporting energy efficiency technologies in the field of transports, private buildings, services and industry, incentives for the installation of thermal solar panels adopted in February 2009 a legal act regulating the incentives for the utilisation of electric vehicles and the development of a pilot supply network, involving 25 municipalities and a consortium including a public research institute and several private companies), the foreseen adoption of a new national action plan for renewable energy (recently object of a public consultation).

The energy efficiency of industry remains an issue. The public finance consolidation efforts may put the funding and timely implementation of some of these measures and investments at risk.

3.21.5. The business environment

Portugal scores significantly above the EU average concerning the availability of high-speed broadband lines, but clearly below average concerning the legal and regulatory framework as well as state aid for industry and services.

Over a period of less than three years several initiatives for reduction of administrative burdens, enhancing legal quality and e-government have been launched. The *Simplex* Programme for the reduction of administrative burdens launched in 2006 was strengthen in 2008 through the introduction of quantified targets for 2012 and full compliance cost and was extended to cover municipalities (*Simplex Autárquico* Programme). The *Legislar Melhor* Programme for enhancing legal quality (launched in 2006) is the first integrated programme for Better Regulation in Portugal and include the first steps toward *ex ante* impact assessment, the *Simplex* Test. A preliminary version of the Practical Guide for Prior Assessments has been developed. Further efforts leading to the setup of an effective mechanism of regulatory impact assessment including their quality monitoring are still needed.

eGovernment was developed in association with the administrative and legislative simplification programme. Substantial effort has been made to provide all public services online and to increase the level of sophistication. Business services are fully available online, and the usage by enterprises stands above the EU average. The national e-procurement platform is mandatory only for central administrations.

The one-stop-shop to start-up an enterprise (Enterprise Formality Centres, CFE) is fully operational.

Energy infrastructure investments such as in the National Dam plan continue (foreseen to increase from to 70% the contribution of hydroelectricity by 2020). 5 dams, one of which is reversible, with a potential power of 1040 MW in total are under construction.

A plan was adopted to develop and support broadband investment by the private sector (estimated to reach EUR 1 billion).

The natural gas tariffs were liberalized for companies (customers with an annual consumption above 10 000 m3) on 11 June 2010.

Portugal could improve its overall business environment by creating more favourable framework conditions for investment and entrepreneurship. Examples of concrete bottlenecks include: facilitating the conditions for hiring workers and the procedures for dealing with construction permits, reducing the delays in the court system, the rationalisation and consolidation of existing regulations.

Full implementation of the measures and calendar foreseen for the gradual liberalisation of tariffs in the natural gas and electricity markets would be helpful. This applies as well to measures to foster the cross-border energy connections and a start-up of a dynamic Iberian electricity market. Implementation of the service directive is crucial. Efforts should continue to include effectively Municipalities and all levels of Public Administration within the scope of the Simplex Programme, to implement an impact assessment and evaluation systems, to achieve further administrative simplification, burden reduction and greater efficiency of public services in general and in particular in the judicial system.

3.21.6. Entrepreneurship and SME policy

The SME sector in Portugal is relatively more important than in the EU as a whole and is dominated by micro enterprises (accounting for 42% of total employment, compared to 30% for the EU). Portugal scores significantly above the EU average concerning the business churn and early stage financing, but significantly below concerning the payment duration by public authorities and the enterprise survival rate after two years.

Many measures were taken during 2009 and 2010 in the context of mitigating the effects of the crisis, especially on SMEs, with the purpose of facilitating access to credits and export markets (see above).

Several measures targeted at promoting exports and the internationalisation of SMEs, such as: i) set up, on 19 January 2010, of the Council for the Promotion of Internationalisation (CPI) charged with the definition, follow-up and evaluation of the internationalisation strategy and supporting measures; ii) creation, on 1 June 2010, of a fund (initially EUR 250 million) supporting the internationalisation and exports (FAIE) for SMEs, aimed at increasing the number of firms exporting, enlarging the geographical scope, number of products, the valued

added and the technological content of the exports; iii) set up of network of 14 "export support offices" throughout the country and a program "Inov-export" supporting traineeships in exporting SMEs.

A legal act has been adopted to unify and streamline the procedures for granting tax incentives for investments in Portugal and for the internationalisation of Portuguese companies (including a corporate tax credit of 10% - up to 20% for SMEs - of the relevant investments until 2020).

In order to reduce the delay of payments by public authorities, the 'Timely Payment Programme' has been implemented in 2008, complemented by the Programme for Extraordinary Reduction of State Debt ('Programa de Redução Extraordinária de Dívidas do Estado'), as one of the measures to promote the liquidity conditions for businesses. A new law (adopted on 27 April 2010) sets the conditions and makes mandatory the payment of interest by the state and local authorities in case of delay of payments.

Of a more structural nature, a large number of supporting measures and programmes, party funded by the EU structural and cohesion funds were set in place by the Portuguese government, mostly in 2007 and 2008. The QREN system is a major funding source of government initiatives designed to support the economic development of the country. The programme FINICIA aims at improving access to credit and equity for companies in early stages of their life cycle, while FINCRESCE supports the transfer of the ownership of SMEs, management buy-outs and management buy-ins. The programme PAECPE that adapted previous initiatives was approved in 2009 to support recipients of unemployment benefits to become self-employed. A training program for managers of micro, small and medium companies, aimed at improving their management skills, was put in place on 29 March 2010 and runs until 30 June 2011.

Regarding entrepreneurship skills, the Education Ministry is implementing a National Education Project for Entrepreneurship Education (Projecto Nacional de Educação para o Empreendedorismo or PNEE) which aims at establishing entrepreneurship education as a cross-curricular subject within the curriculum. Within the framework of the PNEE, elementary, secondary and vocational/professional schools have been invited to develop a set of initiatives leading to the creation of entrepreneurship competencies and attitudes.

The main challenges in the entrepreneurship and SME field are to ensure that public finance consolidation and the gradual exit from supporting measures does not undermine general liquidity conditions and access to finance for businesses and in particular SMEs and to promote entrepreneurship and the framework conditions and incentives that facilitate structural change and growth in the medium and long term.

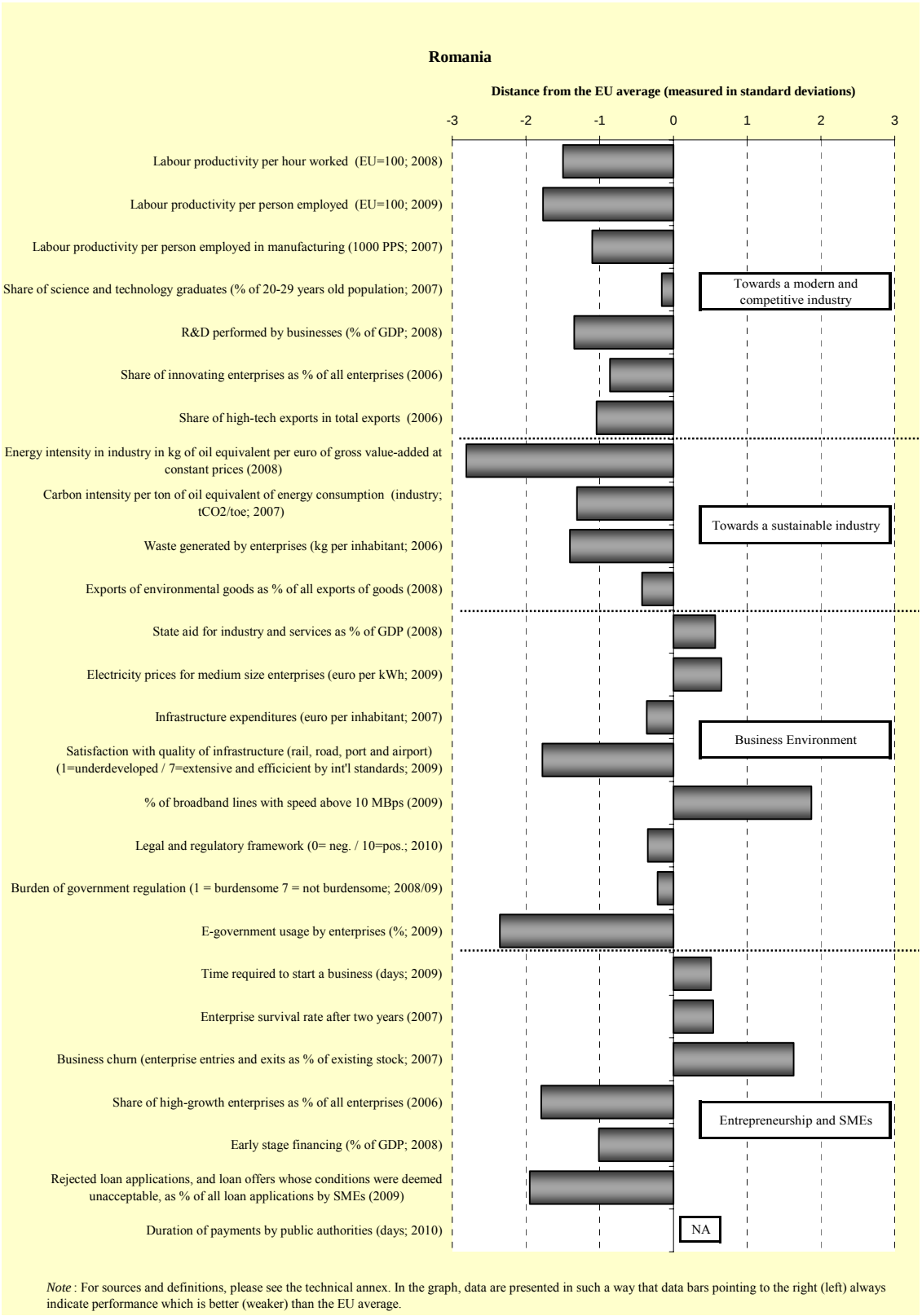
3.21.7. Conclusions

Portugal could further improve its overall business environment by creating more favourable framework conditions for investment and entrepreneurship. The administrative and regulatory environment is the main issue here; efforts should continue to implement an impact assessment and evaluation systems, to achieve further administrative simplification, administrative burden reduction and greater efficiency of public services in general and in particular in the judicial system.

Weaknesses regarding skills, human capital and cross-linkages between the education and research systems and the corporate sector and low business R&D investments constitute obstacles for the emergence and establishment of new companies, particularly in knowledge intensive activities. The promotion of international partnerships and of research in consortia in the context of the national innovation system may help in bringing the interaction between universities and companies to a new level.

3.22. Romania

3.22.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.22.2. Introduction[45]

Labour productivity in Romania was growing from 2005 but did only reach some 45% of the EU average in 2008/9, measured per hour and per person. However, even though annual productivity growth rates in this period exceeded 5%, significant losses in competitiveness were unavoidable as nominal unit labour costs in Romanian manufacturing increased by 261% between 2000 and 2009 with almost 2/3 of the increase occurring during the first half of the decade. This increase was higher than in any other EU Member State and more than 10 times higher than the EU average of 19%. Romania shows a decreasing deficit in the trade of goods starting with 2009. The export sector had to cope with Romania's strong appreciation of the real effective exchange rate since 1999 (the strongest in the EU).

Sectors with negative and low-growth rate for the EU in total are still very important in Romania (both amounting to 41.2% of GDP in 2007) and exert a negative influence on the general performance of the country. However, their share in GDP decreased over the period 1995-2007, but more growth-intensive sectors are only slowly gaining ground.

Manufacturing plays a much bigger role for Romania than for the EU in total (24% vs. 17% of value added in 2008). Romania ranks among the EU Member States with the highest share of manufacturing in GDP and the lowest of market services, while the multiplier effect of manufacturing on market services is the lowest in the EU. Compared to the EU, the manufacturing sector is particularly specialised on leather and footwear, textiles and clothing, food/drinks/tobacco, wood products and furniture, and refined petroleum.

This specialisation in sectors demanding low-skills is slowly losing ground in favour of low-intermediate and high-intermediate skill sectors. The restructuring of the Romanian industry has generated over the last decade a gradual shift from labour- and resource intensive sectors towards higher technology sectors largely as a result of foreign direct investment inflows (e.g. the case of the automotive sector, ICT, metallurgy - ferrous and non-ferrous, building materials, machinery and equipment). This trend is confirmed by the export structure of recent years characterised by a significant increase of exports of machinery and equipment which trebled during the period 2002-2007 and of transport equipment and accessories which went up fivefold, while exports of textiles and footwear increased by around 20% during the same period.

In the service sector, only “transport and communication”, construction, and wholesale and retail trade have a larger weight than EU in total. The primary sector is larger than for the EU in total due to the second-highest share of agriculture in the EU. Employment figures show an extremely low level of productivity in agriculture even after substantial job losses. Forecasts until 2020 expect an increase in employment in distribution and transport, and in construction by some 30% while employment in the primary sector might decrease by 25%.

Exit from the crisis

After several years of sustained growth, Romania was hit hard by the global economic downturn starting from the second half of 2008. In July 2010, manufacturing output was 6% lower than before the economic and financial crisis. In the course of the crisis it fell by almost

[45] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

20%. Construction and real estate, road transport, chemical industries, extraction of crude oil and natural gas were among the most affected sectors.

The need for fiscal consolidation left little room for manoeuvre in launching costly recovery measures. The main stimulus measures affecting product market were the *Rabla* car scrapping scheme for stimulating the renewal of the national car fleet and the temporary rise of the maximum threshold of State aid from EUR 200 000 to EUR 500 000 (the budget of this scheme for the period 2009-2011 is of EUR 45 250 000). Moreover, the Government has offered state guarantees in support of major investment projects by large companies (Ford Romania, Oltchim, Renault Technologie and Renault Mecanique, Pirelli Tyres, Rafo and Romplumb) active in the manufacturing sector.

Furthermore, in the framework of the structural reform conditionality attached to the Memorandum of Understanding (MoU) of the EU financial assistance to Romania concluded in June 2009, a number of structural reforms initiatives have been launched, which have limited impact on the 2009 and 2010 budgets. Reforms include initiatives towards improving the efficiency and effectiveness of public administration, sound use and improved absorption of EU funds, increasing the efficiency and effectiveness of public R&D spending, improving the business environment, and tackling undeclared work.

3.22.3. Towards an innovative industry

The structure of Romania's economy is characterised by the prevalence of low- and medium-technology sectors, with low knowledge demand and low innovation culture. The level of innovation infrastructure and mechanisms is still at an early development stage, situation due to a large extent to the chronic very low public and private RDI expenditure. The low levels of business RDI, both in the case of large firms and SMEs, are rooted in several structural and managerial deficiencies, such as the firms' reluctance or inability to take on financial and commercial risks arising from RDI, the poor financial services and instruments to mitigate the risk, the little awareness of the funding opportunities for innovative enterprises that have recently become available, the lack of a clear market supply and demand approach to innovation, the excessive reliance on government funds and the low share of funding attracted from EU funds and other sources. In addition, the Romanian innovation system faces weaknesses as regards its scientific performance and the governance of the RDI activities. In this light, the innovation performance is weak compared to the EU average (third to last among the EU-27) but its growth rate makes Romania one of the growth leaders in the 'catching–up' group of countries, according to the European Innovation Scoreboard. Innovative firms account for less than a fifth of the country's total number of active firms and workforce.

The current set of innovation policy instruments in Romania includes direct instruments, which continue to be the dominant funding mechanism, and a few indirect instruments, such as tax incentives, which are still largely insufficient. The main recent initiatives include: the main instrument of innovation policy is the *National Plan for RDI 2007-2013* oriented towards enterprises in order to support innovation, technological development and implementation of research results in industry; tax allowances of up to 120% of the firm's RDI investment (through an increase of the deductibility of RDI expenditure from 100% to 120%) and use of the accelerated depreciation method on machinery and equipment used for RDI activities, since January 2009.

Under the severe cut of public RDI spending in 2009 (50% less than foreseen in the multiannual planning and 25% less than in 2008), there are concerns about the capacity to ensure adequate funding for the ongoing research programmes and projects. In light of this, a process of improving the efficiency and effectiveness of the public RDI spending was launched in 2009 and a *Plan* was adopted by the Romanian Government in May 2010, in line with the conditionality attached to the MoU. The *Plan* draws a set of measures aiming at adjusting to the limited financial resources, ensuring the consistency of RDI policies and programmes, stimulating private sector RDI activities, as well as establishing and implementing uniform procedures for monitoring and evaluation of RDI activities.

The number of innovative enterprises in industry and services has slightly increased in recent years. Thus, the challenge is to increase the innovative potential of enterprises, particularly SMEs. Closely related to this, another major challenge is to improve technology transfer and business support infrastructure (business incubators, technology transfer offices, S&T parks, clusters etc.). In this respect, there are bottlenecks in the absorption of foreign technology as well as challenges to mitigate high innovation costs, particularly for SMEs, through provision of assistance programmes, availability of technology enriched information, and appropriate financing schemes. Moreover, partnerships among industry, university and R&D institutions could be improved. Public funding could be used more to leverage private sector investments, strengthen links between business and research institutes and better adjust research to market needs. Furthermore, a cross-cutting issue is the shortage of a highly skilled labour force due to an inefficient high-education system not yet reformed and substantial brain drain and migration. These challenges are matched with the need to improve significantly the business environment in order to provide the appropriate framework conditions.

3.22.4. Towards a sustainable industry

The sluggish restructuring of the industrial base which, prior to 1989, has been characterised by the high-share of energy-intensive and non-sustainable industries and a poor energy-saving culture, resulted in outdated technologies and productive equipment and lack of conformity with the environmental standards. In addition, foreign direct investment flows in manufacturing industries have had a clear preference for low-technology and energy-intensive sectors. In consequence, the environmental performances of the Romanian industry are poor. The levels of the energy-intensity in industry as well as of waste generated by enterprises are the third-highest in the EU, while the export of environmental goods is well below the EU average.

The main funding instrument for environmental policy is the Operational Programme *Environment* with a total budget of EUR 5.6 billion (EUR 4.5 billion EU contribution and around EUR 1.1 billion national public participation) over the period 2007-2013. The Operational Programme *Increase of Economic Competitiveness* provides also funding for the development of an eco-efficient productive system, ncreasing the energy efficiency and promoting renewable energy sources.

The main recent initiatives with direct relevance to industry are the state aid scheme for the promotion of high-efficiency cogeneration and thermal energy and the *Rabla* programme for stimulating the renewal of the national car fleet (ongoing in 2010).

The main developments at institutional level are the government decision to implement the Commission's Regulations and Directive 2005/32/CE on eco-design requirements for the energy performance of energy-using products, currently under endorsement, as well as the

adoption of the 2010-2013 Roadmap for the implementation of the *Environmental Technologies Action Plan* (ETAP Romania). By contrast, the approval of the *National Action Plan on Green Public Procurement* for the period 2010-2013 which sets multi-annual green procurement targets for different categories of products and service, planned as for September 2009, has been delayed. Finally, an inter-ministerial working group was established in April 2010, in order to develop the Romanian strategy on electric cars.

As one of the most energy-intensive economies in Europe, energy efficiency should be a key priority in Romania, in line with the EU objectives on climate change and renewable energy for 2020. Whilst some measures are already foreseen, an ambitious and integrated strategy is now required to improve radically the energy efficiency of production structures in order to reduce energy dependency, emissions of CO2 and costs for end-users. Moreover, conformity with environmental standards, which is essential for industry competitiveness, will require significant financial efforts to supporting the adoption of standards, upgrading productive capacities and processes, and investing in environmentally friendly, eco-efficient technologies. Thus, another priority would be publicly-financed investments, including relocating funds from other public investments programmes with less multiplier effect in the economy, and an increased use of EU Structural Funds.

3.22.5. The business environment

The Romanian business environment is hampered by the weak administrative capacity at both central and local levels. The lack of implementation of structural and institutional reforms resulted in a heavy regulatory environment, characterised by the lack of transparency in the decision-making process and significant red tape in all sectors of administration. The high number of authorisations and permits and delays in obtaining them, as well as the world second highest number of taxes to be paid (113) are mirrored by the weak position of Romania in the various international benchmarking exercises. Moreover, the lack of development of transport infrastructure, especially motorways - Romania has the least developed motorway network in the EU and there is no motorway connection to the motorway network of other EU Member States - represents a shortcoming for increasing economic competitiveness. Furthermore, ICT take-up by enterprises and administration is still at an early development stage, although the percentage of high speed lines is very high.

In accordance with the conditionality attached to the MoU between the European Community and Romania and the Stand-By Agreement concluded between Romania and the International Monetary Fund, the Government assumed in September 2009 the responsibility for the *Law on the reorganisation of public authorities and institutions, streamlining public spending and supporting the business environment*. This law includes several measures to reduce budgetary expenditure and to support the business environment to overcome the economic crisis.

In the context of the MoU, several structural reforms that should contribute to improving the business environment have been initiated over the period 2009-2010. A functional review of the public administration led by the World Bank– which is aimed at addressing both specific performance challenges in individual ministries and the systemic problems that may require a government-wide approach - has started in 2010. Based on its outcomes, the Government should prepare an action plan for a strategic reform of public administration to increase its efficiency and effectiveness. An inventory has been made that totals 275 categories of requirements for authorisations/permits focussing on registering property, operating a business and building works. A list of 51 from the 275 categories issued by the central government institutions has been included in a Plan in view of simplification or elimination.

So far, 16 categories have already been simplified/ eliminated while in the other 35 work is ongoing. Amendments to the bankruptcy legislation aimed at shortening the time necessary to close down a business to less than 1 year have been submitted to Parliament. Furthermore, other amendments are under preparation to enable out-of-court corporate restructuring negotiations.

A *Better Regulation Strategy* for the period 2008-2013 was adopted in 2008. Romania assumed a national target of 25% of administrative burden reduction by 2012. The process of identifying the information obligations was completed in June 2009 (4430 information obligations were identified in 13 sectors). The next stage consists of measuring the administrative costs on the basis of a SCM manual adapted to Romania's specific needs, whose development is funded by the Dutch government. In parallel, the development of a sector-specific methodology to improve *ex ante* impact assessments in the field of education and health was foreseen to be completed by end 2009. Finally, codification work is ongoing to elaborate the *Administrative Code* and the *Administrative Procedure Code*.

Romania has taken a number of measures to improve the quality of public services via Internet. Ambitious objectives for eGovernment and eBusiness have been set through the *Governmental Strategy for Broadband Communications Development in Romania* for the period 2009-2015, which was adopted in 2009. Moreover, the creation of a national portal (eRomania) is under way.

The implementation of the EU Services Directive was scheduled for completion by end 2009. In addition, the Government is planning to restructure the Romanian energy generation sector by consolidating the state-owned energy assets in two companies while maintaining the legal, managerial and operational independence of the concerned entities.

The measures already initiated or foreseen address some business environment bottlenecks, such as cutting red tape or developing the information society. However, strengthening the administrative capacity is the key weakness to be addressed. Thus, implementing timely and effectively the recommendations of the functional review of the public administration currently led by the World Bank would be an important undertaking. Another major challenge would be continuing and broadening the scope of the administrative simplification initiated in the frame of the MoU conditionality. Whereas many of the categories of authorisations and permits already simplified are not among those having a significant impact on business, particularly on SMEs, it would be essential to further extend the inventory to other areas of the public administration and to carry out the process in close collaboration with stakeholders and the business community. In addition, a substantial reduction of the number of tax payments per year seems also to be essential. Furthermore, investing in transport and communication infrastructure would be critical to improving competitiveness and attracting investment.

3.22.6. Entrepreneurship and SME policy

SMEs are prevailing in the Romanian economy and represent over 99% of total enterprises. In recent years, the SME sector has consolidated its role in the economy in terms of number of employees and average turnover per enterprise. The economic crisis resulted in much more restrictive credit terms for SMEs and large enterprises and the difficult situation on the financing markets will be an issue for economic recovery. The number of SME bankruptcies doubled in the first half of 2009 compared to the same 2008 period. Most SMEs are severely undercapitalised, despite some national initiatives and support programmes. The shortage of

finance, lack of business support services, limited entrepreneurial skills and experience, and insufficient knowledge of how to enter markets are the main factors explaining the low rate of business survival, lack of growth and competitiveness.

Romania has taken a small number of stimulus measures with a view to supporting business dynamism. Some of measures announced by the Romanian Government in early 2009 have been adopted very late, thus considerably delaying the expected effects (such as the temporary tax exemption of the reinvested profit starting with Q2-2009, postponed to October 2009) while some of them have not been adopted at all. Financial support to SMEs was provided via multi-annual national programmes and guarantee instruments. The National Credit Guarantee Fund for SMEs became operational, and a Counter Guarantee Fund of Loans to SMEs was set up in 2009. In addition, legislative measures were taken in 2009 to ensure the implementation of the *JEREMIE* initiative.

Currently, there are several actions running, financed by the OP *Increase of Economic Competitiveness*, providing support to new investments, internationalisation of SMEs, support for the implementation of international standards, and advisory services. In addition, support to investment projects of micro-enterprises as well as to developing the regional business infrastructure is provided through the OP *Regional Operational Programme*. Several ongoing assistance projects, financed through the OP *Administrative Capacity Development,* aim at implementing a coherent plan for improving the business environment, transposing at national level the Small Business Act, and developing an operational one-stop-shop pilot model.

The public procurement law was modified with the aim of accelerating and rendering more flexible the procedures of absorption of European funds. In addition, an assessment of the participation rate of SMEs in the public procurement process was carried out, showing that over 55% of contracts with a total value of EUR 4 billion were allocated to SMEs.

Concerning entrepreneurship, the government initiated in 2008 an action to stimulate entrepreneurial mindsets of high school pupils and students through the use of interactive learning methods such as ‘the simulated firm’. Several programmes for entrepreneurial education among young people and women were carried out, with a total budget approximately 2.3 higher in 2009 compared to 2008. Moreover, the 2006-2009 *National Multiannual Programme* set up to support SMEs' access to training and consulting services was extended until 2012, with a total budget for 2009 of EUR 5.1 million.

Romania's policy response to helping SMEs to survive the economic crisis was hindered by the need for fiscal consolidation, which left little room for manoeuvre in launching costly recovery measures. To mitigate the companies' higher costs of financing, scarcity of credit and guarantees, and lack of working capital, the main challenge in the short term relates to the access of companies, especially SMEs, to financing, including through EU funding. Related to this, Romania needs to increase support to enterprises, particularly SMEs, in accessing the available EU funds, as well as to reduce significantly late payments by public authorities to economic agents. Moreover, facilitating the access of Romanian companies to markets could help offset the decline in demand. In this respect, increasing transparency of public procurement practices and starting to support the internationalisation of SMEs could be important steps.

3.22.7. Conclusions

Whilst the short-term priority is to bring the public finances under control and stabilise the macro-economic framework, the implementation of a number of urgent structural reforms should help to significantly improve the business environment. In this light, the effective and timely implementation of the measures included in the MoU will be critical as it will help exit from crisis in good conditions and pave the way for a return to sustainable growth.

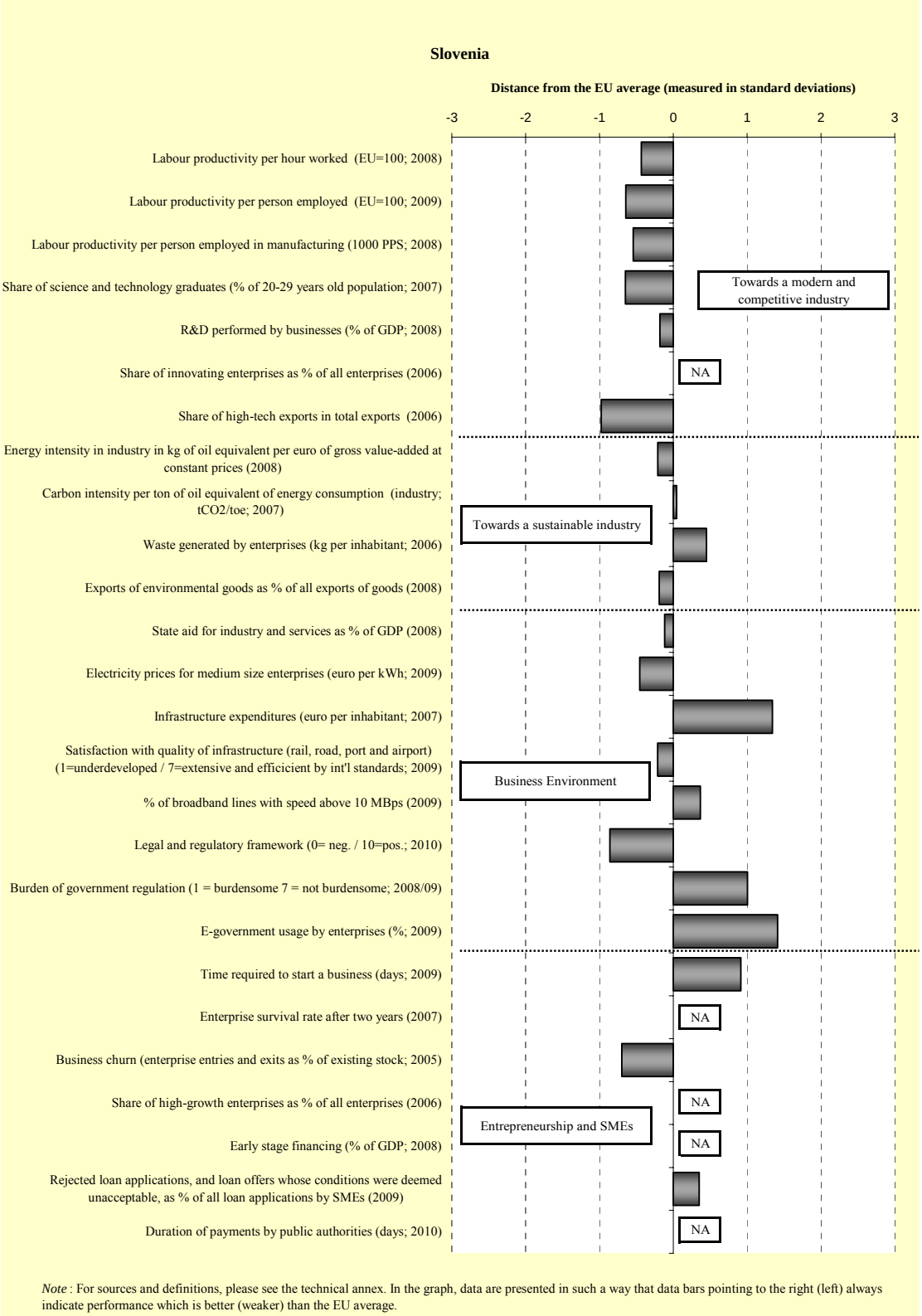
Effective reform of public administration at central and local level would be a key undertaking for Romanian economic structure. The weak administrative capacity limits the possibilities for reform, hinders the absorption of EU funds and is, in general, dissuasive for all economic investors. Strengthening the efficiency, effectiveness and independence of the public administration should help improve the quality and enforcement of policies as well as the effective absorption of structural funds. Making an increase of the low rate of absorption of the EU Structural Funds a priority for economic policy would allow raising the necessary investment in infrastructure and human capital without an excessive burden on the national budget. Moreover, transparency in the decision-making process and accountability of public resource mobilisation and use are essential cross-cutting issues to consider.

Improving the heavy regulatory environment and reducing the significant red tape in all sectors of the administration would contribute to unlocking the business potential and reducing costs of doing business. Furthermore, developing the weak transport (especially motorways) and communication infrastructure would be critical to improving competitiveness and attracting investments.

In the long term, the challenge will be to ensure a paradigm shift away from unskilled labour and energy intensive sectors towards more smart, low-carbon and resource-efficient activities. Upgrading productive capacities and processes, investing in environmentally friendly, eco-efficient technologies, increasing the innovative potential of enterprises, and addressing the shortage of highly skilled labour force available due to an inefficient high-education system not yet reformed and substantial brain drain and migration, will be essential for the competitiveness of the Romanian industry at 2020 horizon.

3.23. Slovenia

3.23.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.23.2. Introduction[46]

Slovenia's labour productivity, measured both per hour and per person, reached around 80% of the EU average in 2005 and in 2008/2009. The real effective exchange rate has appreciated since 1999. The implied decrease in competitiveness is moderate as the drop is lower than for the EU on average. Concomitantly, nominal unit labour costs in Slovenian manufacturing increased by 21% between 2000 and 2009, thus only somewhat faster than the EU average of 19%. Slovenia's fast growth was held back by the crisis. Due to its export-orientation, it is very sensitive to economic setbacks. In that context, labour productivity and cost competitiveness are under careful scrutiny.

Slovenia's progress (from 1997 to 2007) towards higher value added activities is reflected in its recent specialisation patterns. Sectors demanding low and low- intermediate skills dominate the Slovenian economy while the share of low skill sectors is decreasing. There is a decreasing specialisation in high and low technology sectors at the benefit of medium technology sectors. In comparison with the rest of the EU in 1995-2007, Slovenia is getting more specialised in sectors which had a medium to high growth rate, and decreasingly specialised in sectors with a negative growth rate.

Manufacturing plays a larger role in the Slovenian economy than in the EU (representing 22% in Slovenia vs. 17% in the EU of total value added in 2008). The country is mainly specialized in the production of wood and wood products, in chemicals (driven by pharmaceutical companies), in rubber and plastics, in basic metal products and in leather, footwear and textiles. In the services sector, electricity, gas and water supply and construction weight proportionally more than in other EU countries. Employment figures confirm the larger role played by the manufacturing sector compared to the overall EU. But Slovenia is slowly transitioning towards a more services-driven economy. It is forecast that, by 2020, employment will decrease by 28% in the primary sector and by 13% in the manufacturing sector. Conversely, construction services and business and other services would have grown respectively by 9% and 10% by 2020.

Slovenia is very dependent on its trading partners (mainly Germany, Austria, Italy and Croatia). Slovenia's production in transport equipment, chemicals and metals (basic and transformed) is predominantly exported. Slovenia's industries are often part of larger global value chains. As a result, Slovenia is a strong importer of intermediates (products imported for production processes purposes and not for local consumption). Slovenia is mainly a net importer in refined petroleum, in agriculture products and in mining and quarrying. Conversely, machinery and other manufacturing showed a noteworthy trade surplus. Due to the crisis, Slovenia showed a small trade deficit in 2008. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Slovenia in 2008 in wood and wood products. However, Slovenia mainly exports raw wood - logs rather than processed wood products with higher value added, and other manufacturing.

Exit from the crisis

[46] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

The highest level of manufacturing output in the last three years took place in June 2008. When compared with the lowest level of manufacturing output in April 2009, the difference is as high as 28%. In July 2010, output had only recovered by 15%. During the crisis Slovenia provided support to business in the form of de minimis aid and guarantees. Limited access to long-term financing is expected to continue until the end of 2010. The construction sector is particularly affected by the lack of finance.

The first package of anticrisis-measures was adopted in December 2008. It primarily addressed the issues of improving liquidity in the banking sector, of additional incentives to business, of reduction of public spending, and of job preservation. The second package, adopted in February 2009, consisted of further measures concerning the financial sector and liquidity of companies, measures in the area of labour market, life-long learning and social security, support to sustainable development, and measures aimed at improving the use of cohesion funds. The government also increased its level of R&D spending.

The state loan guarantee scheme (support scheme for credit institutions) aims at overcoming problems of liquidity and of obtaining credit from commercial banks. It is to be used for financing investments and working capital and for converting short-term credits into medium- and long-term ones. The state loan guarantee scheme of EUR 1.2 billion is implemented by the Slovenian Export and Development Bank (SID Bank) since mid 2009. In total EUR 645 million of state loan guarantees has been auctioned out to commercial banks; the state has taken upon itself an average of 34% of the loan risk. This scheme expires in December 2010. The government has envisaged in the new exit strategy through 2013 a new instrument to encourage funding of investments in activities of particular importance for the Slovenian economy. Banks are bidding for guarantees at regular auctions organised by the SID Bank, by offering their own funds for the state guaranteed part of the credit and the part where they take over the risk. The risk is therefore split between the state and the banks which thus multiply the total credit potential of the scheme. By December 2009, around EUR 533 million loans had been approved by commercial banks, with on average 34% state guarantee. The scheme falls under the temporary state aid framework and will expire on 31 December 2010. The government, in January-March 2010, announced plans for a new EUR 1 billion loan scheme to enable large companies to obtain state guarantees for development projects. In addition, the Slovene Enterprise Fund (SEF) has been offering to SMEs bank loan guarantees with subsidised interest rate. In 2009, the favourable financial resources of SEF (guarantees, co-guarantees, subsidised interest rates and grants) amount to EUR 120 million for 779 projects of SMEs.

In conclusion, the largest recent employment declines were observed in the manufacturing and construction industries. The recovery process will depend both on banks providing access to finance to companies in the short term and on restructuration and reinforcement of the domestic basis in the long term.

Towards an innovative industry

Slovenia has the highest R&D intensity among new Member States. It amounted to 1.7% of GDP in 2008. Slovenia has increased its R&D intensity during 2000-2008 by an average annual growth rate of 2.3%, as it reached 1.4% in 2000. This growth happened thanks to the increase in R&D investment in the private sector. From 0.8% of GDP in 2000, it grew to 1.1% in 2008, while public R&D intensity remained at 0.6% of GDP (public R&D spending rose considerably in 2009, when government increased its R&D expenditures by 46 % in nominal terms).

Looking at the European Innovation Scoreboard (EIS) data (EIS, 2009), Slovenia is making continuous progress in its innovation performance. Slovenia now belongs to the group of 'Innovation followers' along with countries like Belgium, Austria, the Netherlands and France. These countries have an innovation performance below those of the innovation leaders but close to or above that of the EU27. In the past, Slovenia was one of the best performing of the moderate innovators group (with innovation performance below the EU-27 average). Changing peer group proves the considerable progress made by the country. Slovenia's strengths lie in human resources, in finance and support, in the proportion of firms that have introduced innovations onto the market or within their organisations. It is also able to generate employment, exports and sales thanks to innovation. Conversely, the country is relatively weaker in firm investments in Intellectual Property Rights (IPR) and in technology balance of payments flows. In 2009, Slovenia's market share in high tech products was artificially boosted because of robust demand in the motor vehicle market (through the car scrapping schemes) and the pharmaceutical sector.

In 2008-2009, new measures were introduced or existing ones were modified by different organisations active in the research, development and innovation fields.

Public sector instruments have been relatively stable. In 2009, as in 2004 (year of their foundation) centres of excellence have been fostered, supported also by the European Regional Development funds. The state has increased the co-financing of research equipment and infrastructure to increase the international competitiveness of public research, also in relation to anti-crisis measures.

The national research and development programme for 2009-2010 intends to strengthen the links between the business sector and the research field. There have also been measures to strengthen human resources in R&D activities, facilitating mobility and inter-disciplinary interactions. The government has allocated grants for the purchase of new technological equipment to 231 SMEs and start-up of 91 innovative companies in technological parks and incubators in 2009.

Numbers of challenges remain outstanding. The level of R&D investment, both in the public and the business sector is threatened by the crisis. Besides, structural funds had a more limited impact than it could have had due to delays of calls and complex administrative procedures.

Better coordination of the innovation support network is needed, especially among ministries as well as with intermediary support organisations. Besides, the Slovenian private sector often complains about the insufficient or complicated instruments available for R&D and Innovation. The frequent changes in support programs make the overall system less transparent.

3.23.3. Towards a sustainable industry

While production from emission-intensive industries tended to increase in the recent years, the crisis has reversed this trend. The production of emission intensive industries has decreased by 2.4% in 2008 and by 18.6% in 2009, mainly due to lower production of metals, especially aluminium.

The overall Slovenian economy remains prone to higher greenhouse gas emissions. Two factors drive this tendency: the specialisation in manufacturing activities and the strategic localisation of the country. The localisation is both a curse and a blessing. Slovenia is situated

between Austria, Italy, Hungary, Croatia and is directed towards the Adriatic Sea. It makes it an attractive manufacturing location and transit country. But road transport is eventually the largest contributor of greenhouse gas emissions.

The National energy efficiency action plan 2008-2016 contains 29 instruments. SID Bank offers financing of investment in R&D and innovation through the European Clean Transport Facility fund of the EIB and its own funds. The measure would cost EUR 136 million. It prioritises clean and technology advanced industries that invest in R&D and innovation.

Concerning the government's own actions, public investment and procurement are to favour energy efficiency and environmentally-friendly solutions. Public procurement was made more environmentally friendly in 2009 thanks to amendments to the public procurement act. Moreover, public tenders favour a number of environmental criteria including energy efficiency, reduction of hazardous substances and recycling.

Among recent measures that target individuals and companies, sustainable tourism is actively encouraged (introduction of environmental standards). Natural persons are now allowed to generate electricity in small power plants without registering as sole proprietors (since an April 2010 amendment of the energy act). Financial support is provided in the priority areas of clean and technologically advanced industries (e.g. automotive industry).

Concerning non-budgetary measures, Slovenia has merged all competencies for renewable energy and energy efficiency.

As the current transition from a manufacturing-driven towards a more services-driven economy is a long process, radical measures are needed. Technological changes are needed to come along to improve the overall performance of the country in terms of both energy efficiency and greenhouse gas emissions. At a more sectoral level, it is a challenge to mobilise the means to develop railway services that can offer an alternative to road transport.

In the first phase of the emission-trading scheme (2005-2012), emission permits were distributed for free. By 2013, a transition to the auctioning system will take place.

Summing up, due to its location that makes it a transit country and its specialisation in manufacturing activities, Slovenia is structurally prone to high gas emissions. The structural changes brought by the crisis are an opportunity to favour energy efficiency and environmentally-friendly solutions.

3.23.4. The business environment

From an international benchmarking perspective, Slovenia ranked 53 (out of 183) in the World Bank's Doing business 2010 progressing 5 places. But there are still number of areas where bureaucratic obstacles could be removed.

Slovenia scores much above the EU average in terms of infrastructure expenditures, of government regulation burden and e-government usage by enterprises. For instance, about 90% of the basic government services are available online (though the actual usage is still low). However, it scores clearly below average for the legal and regulatory framework and electricity prices for medium size enterprises.

In May 2009, the Government adopted an Action Plan to reduce administrative burdens for businesses by 25% by 2012. The aim of the programme is to simplify procedures, to raise the

quality of administrative services at national level and to reduce administrative barriers in different working areas within ministries. A new politically-binding document was adopted by the Parliament. It extends the scope of the impact assessments and includes the SME test.

The eGovernment strategy and action plan, in force since 2007, is being refocused from back-office reform and infrastructure to improving user satisfaction. Slovenia has a mandatory national eProcurement platform since June 2007.

Since July 2005, the one-stop-shop system VEM and its electronic version e-VEM have enabled a cost-free registration in one day for sole entrepreneurs. In 2007 e-VEM was introduced on a large scale. From February 2008 on, all forms of companies could be registered either at VEM contact points or electronically through e-VEM with cost-free registration in maximum 3-4 days.

Even though Slovenia has the highest rate of SMEs winning public procurement contracts in the EU, more changes are expected in the public works contract system that would make it even more user-friendly to contracting authorities and users.

To push infrastructure investment further, a number of simplifications are considered in the area of spatial planning, construction and the acquisition of land and permits for the installation of equipment.

The institutional limitations (in terms of means and) of the competition authority have been pinpointed repeatedly. One of the most pressing objectives is to prevent anomalies in public procurement.

3.23.5. Entrepreneurship and SME policy

The SME sector in Slovenia is comparable to the EU average. In both cases, SMEs represent more than 99% of enterprises and about 67% of employment. In 2002-2008, the overall growth rate of employment in SMEs in Slovenia amounted to 14% in comparison of an EU average of 12%. Slovenia scores well with regards to the EU concerning the time required to start a business and the enterprise survival rate after two years, but clearly below average concerning business churn.

Several measures in the two crisis packages target specifically SMEs. To support high growth enterprises, the government set up in 2009 a measure providing Bank loan guarantees with subsidized interest rate. The objectives of the instrument are to ensure more favourable conditions for SMEs, to support new investment and support future growth of the companies. Under this scheme, the Slovenian Enterprise Fund (SEF) is in cooperation with different banks providing guarantees (from 60% to 80%) for the banking investment loans with a subsidy rate for existing SMEs. Available budget for this measure was around EUR 43 million in 2009. Additional guarantees and subsidies of interest rates for SMEs (additional EUR 50.6 million in 2010) are implemented by the Slovenian Enterprise Fund. They are combined with EU-backed guarantees from the EU-CIP (Competitiveness and Innovation Programme) and with funds from the ERDF Structural funds (European Regional Development Fund). In 2009, SEF instruments (guarantees, co-guarantees, subsidised interest rates and subventions) backed loans of around EUR 120 million for around 779 projects in small firms. Since July 2009, the time to reimburse the VAT was reduced to 21 days.

The Slovenian Government adopted in mid 2009 'The Programme of Financial Engineering Instruments for SMEs' – PIFI in order to reduce financial gap for SMEs and includes equity and debt financial instruments that will be managed through a holding fund. This Holding Fund is funded through the EU structural funds. The Slovenian Enterprise Funds published on March 2010 the first call worth EUR 33.99 million for holding fund's investments in venture capital companies. It intends to develop equity investments in SMEs in the form of venture capital and mezzanine capital. This should facilitate the growth of SMEs with high potential.

Concerning entrepreneurship measures, two types of actions are worth highlighting. Firstly, start-up Slovenia is a competition for start-up companies which has been launched in 2007 by the government and has recently been joined by business angels. It aims at identifying and rewarding the best new innovative Slovenian enterprises in order to support them professionally, enable them to connect with potential investors and promote them in the general public. Secondly, the agency 'JAPTI' (that promotes entrepreneurship and foreign investments) has updated its programme in 2007 to encourage the integration of entrepreneurship topics at all levels of formal education. It involves successful entrepreneurs in the promotion of entrepreneurship in schools. It trains teachers to promote entrepreneurial skills and creates flexible study programs and education of students at foreign universities. It promotes entrepreneurship for specific groups, with more emphasis on young people and on women. Entrepreneurship education is also incorporated into the Slovenia Development Strategy and the programme of measures for promoting entrepreneurship and competitiveness 2007-2013.

During 2005-2009 the government implemented a new program to promote the internationalization of Slovenian companies (Program za spodbujanje internacionalizacije podjetij za obdobje 2005-2009). The aim of the programme was to offer new opportunities to promote the Slovenian economy, organise trade delegations, participate in world fairs, and to operate the Slovenian clubs abroad. This program is continuing also in the period 2010-2014. For the year 2010 the provided budget is about EUR 5 million.

Despite the two packages of anti-crisis measures, SME's access to finance has remained an issue. Credit growth has decelerated and more restrictive bank lending can be observed. Among the other difficulties that small businesses face, one can underline: a decrease in orders, a problem of late payments, increases in labour and energy costs (the government intends to introduce new excise duties on electrical energy for companies).

The venture capital market in Slovenia is undeveloped and immature and little integrated in the EU single market. There are only few local venture capital funds with very limited venture capital investments. While the new law on venture capital companies has a good basis, tax advantages are only for those venture capital companies that are registered in Slovenia. This is indirectly preventing cross-border inflows of venture capital and thus also prevents the Slovenian market from attracting additional and alternative sources of finance for innovative and high-growth firms.

On the whole, solving the immediate issues such as late payments is equally important as fostering entrepreneurship and risk capital in the long term.

3.23.6. Conclusions

Despite the fact that Slovenia was the fastest growing new EU Member State before the crisis, it was still hit hard. The Slovenian Government put in place two crisis packages as a response

to the crisis. But the temporary anti-crisis measures will have to be progressively removed. As an export-oriented economy, many industries have been dependant on the recovery of trading partners. In order to mitigate the dependence on external demand in the future, it is crucial to also reinforce the domestic basis.

More can be done to strengthen Slovenia's domestic competitiveness and to facilitate the transition of sectors facing restructuration. Apart from the labour markets reforms that are to come along, several improvements in the business environment could be achieved. A level playing field of competition (especially in services sectors) could be strengthened. The entrepreneurship and innovation culture could flourish further with a clear government innovation structure, more debt finance and an actual venture capital market. Finally, more technological changes and investments could improve the overall performance of the country in terms of both energy efficiency and greenhouse gas emissions.

3.24. Slovakia

3.24.1. Indicators graph

Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.24.2. Introduction[47]

Slovakia's labour productivity per hour and per person reached some 80% of the EU average in 2008/2009. Compared to its level in 2005, it showed a slight increase on both counts. The real effective exchange rate appreciated significantly since 1999, more than in any other Member State except Romania, indicating markedly decreased competitiveness. In contrast to this development, nominal unit labour costs in Slovakian manufacturing declined by 28% between 2000 and 2009 with most of the decline occurring during the first half of the decade, resulting in a 47 percentage point gap compared to the EU average increase of 19%.

The large FDI inflows to Slovakia have been an important source of technology transfer for its economy, which has supported a rapid increase in labour productivity (the third strongest in the EU over the five years up to 2008). After a period of slow increase in the 1990s, FDI inflows boomed over 2000-2008 and represented almost 50% of annual GDP in cumulative terms in 2008. A favourable geographical location, relatively low labour costs and taxes, the existence of various schemes in support of FDI, important improvements in the overall economic and business climate over the period and EU accession largely explain the attractiveness of Slovakia for foreign investors. FDI inflows are concentrated in the energy (production and distribution), car manufacturing and financial sectors, and come mostly from other EU countries, notably Austria and the Netherlands.

Slovakia is increasingly specialised in sectors with medium-low technology intensity, accompanied by a decreasing importance of low technology sectors over time. At the same time, the supply of skills has been shifting in favour of both low and low-intermediate skills. Slovakia is mainly specialised in sectors with a low or medium-high growth rate. Analysis of the revealed comparative advantage (RCA) index, broken down according to technology intensity of goods exports, indicates that Slovakia has developed a comparative advantage in medium-to-high technology goods and ICT industries. This is broadly in line with the RCA analysis based on factor intensity, which indicates that Slovakia has a comparative advantage in capital intensive goods and a disadvantage in raw material intensive goods. These indicators are consistent with changes in the composition of exports and point to a gradual shift in the structure of Slovakia's exports to higher value-added products.

Manufacturing plays a much bigger role for Slovakia than for the EU in total (24% vs. 17% of total value added in 2008). The 2006 sectoral specialisation index reveals Slovakia's strength in wood and wood products, leather and footwear, refined petroleum, basic metals, mineral products and transport equipment With an average share of services in total exports and imports of about 10% in 2008 (down from 21% in 1995), Slovakia is the country with the lowest intensity of trade in services in the EU. This reflects the very large expansion of trade in goods over the last decade. Slovakia showed a slightly positive balance in the trade of goods in 2009, whilst there was a deficit in 2005. The positive trade balance in manufacturing mainly resulted from large surpluses in transport equipment, refined petroleum and metal products, while chemicals showed a noteworthy trade deficit. In the service sector, only electricity, gas and water supply, as well as wholesale and retail sectors show a clear above average weight.

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47 For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

The structure of merchandise trade has changed significantly over time, with a strong concentration in the car and transport industry that now accounts for almost a quarter of Slovak exports. The import structure is dominated by machinery and electric equipment goods used in the car and energy sectors (43% of total imports), and energy products (13% of total imports). In the primary sector, mining and quarrying plays a strong role in imports. Slovakia's export market share in world trade has more than doubled since 1995, reaching 0.4% in 2008. The export market share in euro area countries has also increased significantly, from 0.2% in 1995 to almost 0.8% in 2008. The key drivers of these increases have been greater economic integration, initially significant cost-competitiveness advantage and continuous improvements in the quality of exported products. However, the pace of gains in market shares has slowed down over time, suggesting an erosion of Slovakia's competitiveness, consistent with the developments in the real effective exchange rate. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows an interesting shift for Slovakia from 2005 to 2008. Slovakia had particular strengths in 2005 in wood and wood products and basic metals products, refined petroleum and leather and footwear. These sectors remained important in 2008 (except refined petroleum) but were less prominent; electrical and optical equipment and transport equipment gained ground and were more important.

Exit from the crisis

Manufacturing output in Slovakia fell by 32% in the wake of the economic and financial crisis. In July 2010, Slovakian output in manufacturing stands at 87% of pre-crisis levels. In response to the crisis, Slovakia adopted three stimulus packages, labour and product market reforms, and measures to support the banking sector. In product markets, the government tried to counter the effects of the economic and financial crisis by means of the following two measures:

A car scrapping scheme: As in other EU countries, this scheme was designed to boost demand for automobiles and accelerate the change for newer models with lower environmental impact. The scheme was carried out in two rounds in spring 2009 with state subsidy amounting to EUR 55 mil. .No additional expenditure on the car-scrapping scheme is envisaged. The measure will impact the budget beyond 2009 due to a shift of revenue from VAT and car registration fees from latter years to 2009 given the corresponding shift in car purchases. The effects of the measures are expected to be observable over the period 2009-2012 with a budgetary impact of 0.08% of GDP.

Interest-free loans for projects increasing energy-efficiency: This measure was aimed at boosting demand in the construction sector and also providing future benefits in terms of energy efficiency. If necessary conditions were met, the loan would cover 100% of eligible costs. The programme was time constrained, in force from 1 June 2009 to 31 December 2009. The impact is estimated at less than 0.1% GDP.

In addition, the anti-crisis measures included a number of temporary actions encouraging R&D.

3.24.3. Towards an innovative industry

Slovakia ranks to countries with lowest rates of innovation activity in the EU. Slovakia occupied 26th place out of the 33 countries included in the SII in 2008. Some 80 thousands of Slovak small and medium enterprises (SMEs) account for low productivity levels and low

R&D intensity. Branches of multi-national companies operating in Slovakia have their headquarters and R&D centres located outside Slovakia, and express limited interest in networking with Slovak R&D facilities. Slovak SMEs in general account for low R&D expenditure and compete with low costs of labour.

The innovation policy mix designed for the planning period from 2007 to 2013 is fairly similar to that applied in the planning period from 2004 to 2006. Most financial assistance is allocated to the technology transfers, business and technology incubators, R&D cooperation and risk capital schemes supporting SMEs. The major difference is in the amount of the assistance provided which should substantially increase. The Innovation Voucher Scheme, support to projects applying for the EU CIP programmes, and stimuli for R&D activities in the business sector have reasonable chances of implementation in the above-mentioned period.

To counter the crisis effects, Slovakia adopted temporary stimuli for business R&D in the form of public subsidy and income tax relief for the private co-financing part. In addition, the R&D Agency of Slovakia was financing three anti-crisis programmes in 2009. EUR 3.8 million were allocated for feasibility studies and projects in applied research and experimental development, with additional private co-financing of EUR 2.3 million. Co-operation within and/or between the academic, public and business sectors was allocated EUR 265 551 for 9 projects. However, it is understood that in reality these projects only involved public actors, since the required legislative change to enable public-private co-operation was still pending. Finally, EUR 1 million was allocated for 40 projects to promote applied research to young people.

Slovakia has also organised successive calls for proposals for projects in the R&D field, co-financed from the EU structural funds, whereby identical calls were mostly published for the Bratislava region and Slovakia as a whole. 57 projects were approved in the total amount of EUR 23 million for applied research and technology transfer in the public sector, with additional 24 projects amounting to EUR 10.2 million in the Bratislava region. On 15 June 2009, contract was signed with the Slovak Centre for Scientific and Technical Information for a EUR 33 million project to develop a national data centre for R&D.

The main challenges in the national innovation system have been continuing for many years and identified in the key government documents on innovation policies: first, the low volume and quality of R&D activities, poor participation of Slovak firms in R&D, and weak ties between industry and academia sectors; second, the fragmented national innovation system and low numbers of innovation policy tools; and, third, the low shares of innovating enterprises in the national economy. All these challenges are strongly entangled and necessitate a thorough review of existing policies and instruments with a view of defining a coherent research and innovation strategy adapted to the Slovak situation.

3.24.4. Towards a sustainable industry

Slovakia ranks among countries with higher energy intensity of its industry and the carbon intensity of its energy consumption than EU average. Slovakia scores below EU average also in terms of environmental goods exports as a percentage of overall exports.

In August 2008, an EUR 80 million call for proposals was launched to raise energy efficiency in power production, co-financed from the EU structural funds. The programme aims at improving the efficiency of co-generation heating plants, but also covers restructuring of

industry and services, as well as improving energy efficiency in buildings. A EUR 125 million loan from EBRD for the period 2009-2010 was also secured to improve energy infrastructure in terms of efficiency.

On 1 September 2009, Slovakia enacted support for renewable energy resources and high-efficiency cogeneration to achieve savings in primary energy, prevent network losses and to reduce emissions. The Renewable Energy Act provides for a stable energy price for 10-15 years (feed-in tariffs) to ensure investment, depending on different variables. The tariff can be lowered in case some of the investment is co-financed from the EU structural funds. The same feed-in tariff applies, if the share of bio methane in power production exceeds 20%.

The Energy Efficiency Act, which is in force since 2009, provides for measures to ensure sustainable energy consumption, leading to potential savings of 12,405 TJ over a three-year period. Special measures with considerable impact are envisaged in construction (accounting for 11% of the total savings), household appliances, public sector, industry and agriculture, as well as transport. The private sector can also draw on the Sustainable Energy Finance Facility – a credit line jointly offered by the EBRD and Slovak banks.

The high energy intensity of the industry must be seen in the context of the sector specialisation of Slovak manufacturing. Nevertheless it may constitute a cost handicap.

3.24.5. The business environment

Slovakia scores significantly above the EU average concerning the e-government usage by enterprises, but below average in almost all other indicator categories, in particular concerning electricity prices for medium size enterprises. Unlike gas prices, electricity prices have not followed a downward path after market liberalisation in 2007, pointing at potentially insufficient competition.

Slovakia has a better regulation agenda that includes an administrative burden reduction programme with a 25% reduction target of by 2012. The first measurement was held from June to August 2009 and covered 48 Acts in the following sectors: company law, civil law, accounting, market regulation, taxes, tariffs and charges, labour and employment, environment, intellectual property, capital incentives regulation, bankruptcy and rescheduling. In the framework of the agenda for better regulation, a pilot project to test a *Uniform Methodology for Assessing Selected Impacts* has been ongoing since September 2008, with numerous delays. Consequently, the deadline for the introduction of this methodology has been repeatedly postponed. The Unified Methodology for Assessing Selected Impacts was finally introduced on July 1, 2010.

The one-stop-shop for business start-ups is only operational for sole traders.

In reaction to the crisis, Slovakia introduced the possibility for rollover of VAT deductions, as well as took the more general measures to introduce group VAT registrations, retroactive tax registration, as well as simplified VAT and income tax administration for small entrepreneurs as of spring 2009. The period for refunding VAT overpayments has been permanently shortened from 60 to 30 days as of 1 April 2009, conditional upon absence of tax arrears in the past 12 months. The preliminary data show that some 15% of the entities with overpayments used this option, representing 30% of the total amount due in VAT overpayments. In spring 2009, Slovakia also reformed its depreciation rules, increasing the input price of assets, as well as allowing for component depreciation and faster depreciation

of specific asset types. The total cost of the measure was estimated at EUR 34 million for the period 2009-2010.

The business environment in Slovakia needs swift improvement. In the context of the slow progress in tackling this challenge, the 2010 Doing Business survey by the World Bank showed deterioration in the country's performance: Slovakia was ranked in position 42, down from 35 in 2009[48]. The areas requiring most attention due to perceived worsening of the situation include contract enforcement. Better regulation needs to be turned into a fully-fledged and fundamental principle throughout the Slovak public administration to achieve a lasting improvement. The authorities could also look into further ways of stimulating competition in the electricity sector.

3.24.6. Entrepreneurship and SME policy

The Slovak SME sector has a relatively large-scale structure as compared to the EU average, with much higher shares of medium-sized and small enterprises while the percentage of micro businesses is considerably lower (76% vs. 92% in the EU). The contribution of Slovak SMEs to the overall economy, as measured by the value added (47%), is in EU-terms small. On average, SMEs in Slovakia also play a less prominent role in the local economy: contribution of SMEs to employment in Slovakia (55%) is well below the European average (67%). Only the group of medium-sized firms seem to break this trend, being responsible for 23% of the work force in the private sector, as compared to the EU average of 17%.

In the context of its 2009-2010 recovery plan, Slovakia took many initiatives in support of corporate cash flows, both in terms of tax administration measures and direct financial support. Specific SME support programmes were designed in the form of an extended micro-loan scheme, incubator care, as well as consulting and training support scheme. The budgeted cost for 2009 constituted EUR 8 million, of which EUR 5 million for the micro-loan scheme.

Slovakia has stepped up SME financing by increasing the equity of two public lenders in spring 2009. Over the first six months of 2009, this allowed for raising SME lending by 25% in new loans and 8% in total loans outstanding in comparison with the end of 2008, whilst the total insurance portfolio of Export-Import Bank grew by 14% y-o-y. Since August 2009, EIB funds for SME loans have also been available in the total amount of EUR 50 million. The Slovak Guarantee and Development Bank (SZRB) is also providing loan guarantees in the value of up to 55% of the loan value to SMEs that seek loans at private banks. There is no need to visit the SZRB to obtain a guarantee and this can be done within as little as five days. During the first six months of 2009, 454 fast-track bank guarantees were provided in the aggregate amount of EUR 30 million, enabling SME loans in the total value of about EUR 59 million.

Since 2009, new legislation on vocational education gives opportunities to private firms to support professional schools and influence their curricula to reflect better the labour market needs and provide basis for entrepreneurship. One of the priorities in the framework of teaching curricula in recent years has been to support the development of entrepreneurial skills and for acquiring basic knowledge about business and the economy at secondary-school level. The Ministry of Education has incorporated this issue into the state education

[48] It should be noted, however, that the 2010 edition includes two additional countries compared to 2009.

programmes by creating a facultative subject for all groups of study paths. Secondary schools aimed to incorporate the issue into school education programmes by September 2009.

The main challenges in the entrepreneurship and SME policy field relate to the rather high administrative burden that exists in Slovakia. For example, the time required to wind up a business stands at 4 years – well above the EU average of 2 years, whilst it takes about twice as long for Slovak SMEs to export or import (25 days for both) than in EU (11 and 14 days, respectively). According to the 2010 Doing Business survey by the World Bank, the area with the most marked deterioration was in procedures to start up a business.

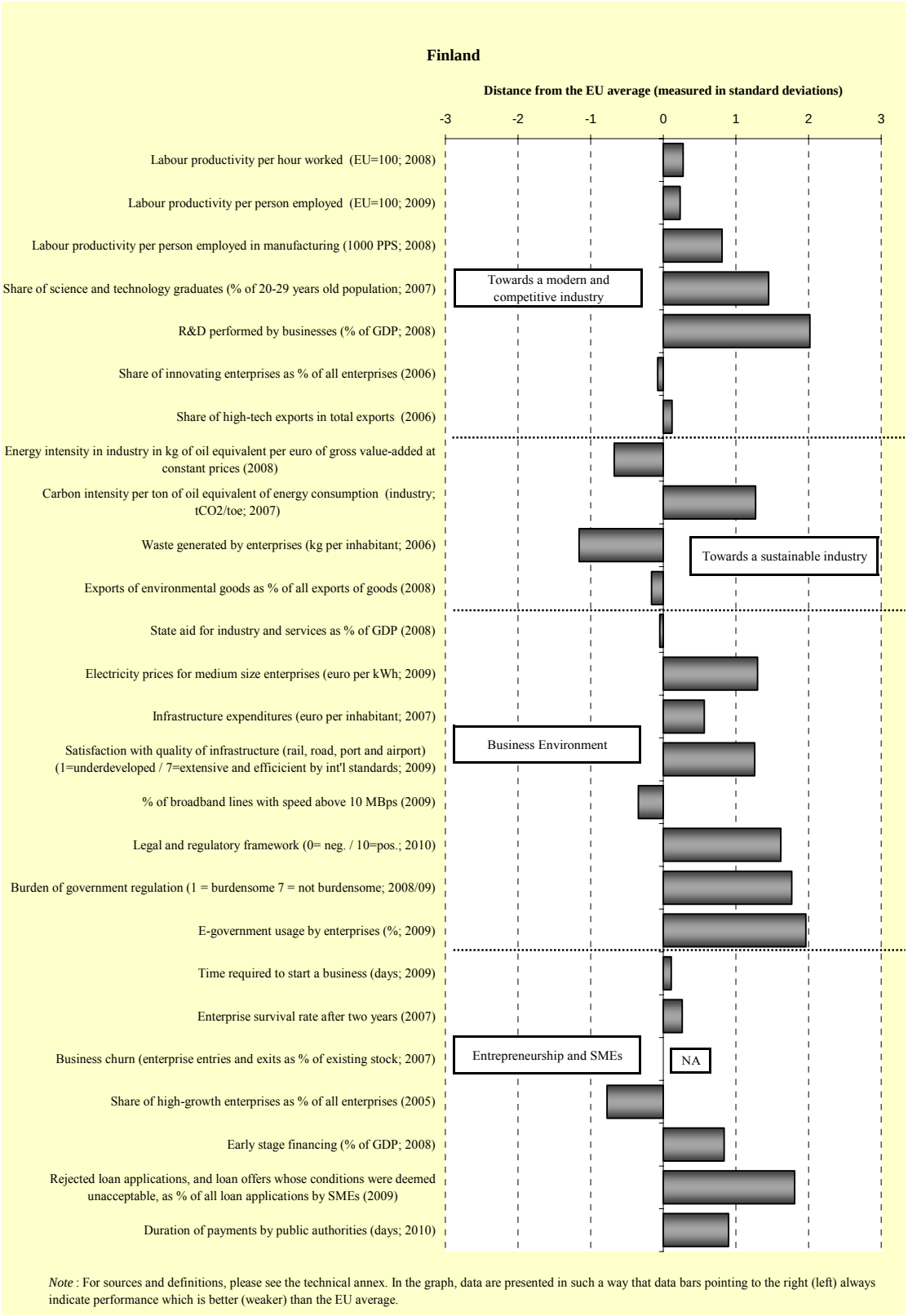
3.24.7. Conclusions

Taking into account the fact that Slovakia is now part of the euro zone, whilst the neighbouring countries are not and have floating exchange rates, it is crucial that Slovakia gives a further impulse to its reform programme in support of productivity gains and improvements in the non-price competitiveness of its products. Reallocation of resources towards education, R&D and innovation would enhance the growth prospects of the economy, while facilitating transition towards new types of economic activities. Hence, a coherent R&D and innovation strategy is required, with a particular focus on the institutional reform and substantial improvement of business-research cooperation, while creating further incentives for the private sector in R&D and innovation. The shift to project-focussed public support to R&D activities is a step in the right direction; institutionalising it would provide for competition in this area.

The reform priorities could also include enhancement of the business environment and market functioning, including reduction of administrative burden on businesses, particularly SMEs. A comprehensive better regulation strategy appears to be helpful, including systematic impact assessments with SME tests and continuous simplification of the existing legislation. Slovakia could also encourage entrepreneurship more, in particular, by enabling easier company start-ups and strengthening entrepreneurship education.

3.25. Finland

3.25.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.25.2. Introduction[49]

Finland's labour productivity is 10% above the EU average on a per hour basis (+7% per person employed). In 2008 labour productivity in manufacturing was the fifth highest in the EU. Finland's real effective exchange rate appreciated somewhat since 1999, indicating a small decrease in competitiveness vis-à-vis third countries. In parallel, nominal unit labour costs in Finnish manufacturing first declined and then increased again resulting in an overall decrease of 2%. This implied a 21 percentage point gap compared to the EU average increase of 19%. Thus the price competitiveness improved.

Finland is specialised in sectors demanding high-intermediate and low-intermediate skills. There is a clear trend towards sectors with high technology intensity from 1997 to 2007. Finland's sectoral structure regarding growth intensity is balanced.

Manufacturing plays a much bigger role for Finland than for the EU in total (22% vs. 17% of value added in 2008). Finnish manufacturing is specialised on pulp, paper and publishing as well as electrical and optical equipment. In the service sector, only the sector "transport and communication" and "health and social work" have an above average weight. In the primary sector, agriculture and forestry play a bigger role for Finland than for the EU in total. Employment figures show a decreasing importance over time of the primary sector and manufacturing and a trend towards service sectors, especially real estate and business activities. Forecasts until 2020 expect an increase of employment in business and other services of almost 16%.

Finland shows a surplus in trade of goods in 2009. The export structure largely follows the sectoral structure of the economy; only transport equipment and refined petroleum have a larger export share relative to their importance in the economy. The positive trade balance in manufacturing mainly resulted from surpluses in pulp, paper and publishing, electrical and optical equipment, other machinery and basic metal products, while food, textiles, chemicals and transport equipment showed a noteworthy trade deficit. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Finland in 2008 in pulp, paper and publishing and wood and wood products.

Exit from the crisis

During the peak of the economic and financial crisis the manufacturing sector faced an output reduction of 28%. In July 2010, output recovered from this trough by only 10%. In response to the crisis Finland provided a total amount of EUR 23 million to more than 4000 SMEs in manufacturing and services sectors. The funds were allocated under the Temporary State aid Framework, mainly as *de minimis* aid. In addition, the government introduced a number of further measures with the aim of improving financing conditions for enterprises. The government authorised various state-controlled entities to significantly increase their provision of guarantees, export credits, venture capital, injections of new capital and interest subsidies. These will most likely expire at the end of 2010.

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[49] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

The crisis measures successfully ensured access to finance of the real economy. The willingness of the financial sector to take risk is still relatively low, in particular in respect of loans to SMEs.

3.25.3. Towards an innovative industry

Finland has a very good innovation performance that puts this country in the group of innovation leaders. Both public and private R&D expenditure is well above EU average.

The Government agreed in January 2009 on a stimulus package which included a number of relevant measures for innovation policy. Appropriations allocated to research and development have been further raised on a permanent basis beyond the already high R&D support. Funding is available not just for technological but also non-technological development.

ERDF funding is supporting measures in favour of enterprise development and the innovation system (applied research and interaction and cooperation between research centres and enterprises). The Finnish authorities have decided to frontload ERDF financial allocation from the end of the programming period to the years 2009-2010.

In view of preparing new innovation strategies for the future, a number of challenges can be identified: first the transformation of firm strategies and emerging new innovation models. In recent years it has become clear that the old innovation policy approach has clung too much to traditional science and technology policy perspective. Secondly, it seems important to increase and enforce Finland's attractiveness for investments. A major future challenge facing economic and societal development will be to keep Finland sufficiently attractive for business and jobs and as a living environment. Thirdly, the base of innovative growth-oriented enterprises could be broadened. The overall positive development of the Finnish economy over the past decade disguises uneven performance across the board with sometimes individual large domestic multinational enterprises (e.g. Nokia) having accounted for a large part of the impressive progress in productivity and private R&D investments. In this situation, a lack of innovative growth-oriented small and medium-sized companies and start-ups is one of the major identified weaknesses.

A new innovation strategy adopted by the Ministry of Employment and the Economy in 2008 seeks to the improve to the effectiveness of the innovation policy. The strategy advocates transformation of the policy away from the current supply and grant based measures towards market and demand based measures. The scope of the policy will be broader.

The Ministry of Employment and the Economy launched in 2010 an action programme to implement the strategy.

3.25.4. Towards a sustainable industry

The Finnish industrial sector is energy-intensive compared to the EU average. Waste generated by enterprises is one of the highest in the EU.

The new Climate and Energy Strategy envisages that growth of energy consumption will be halted and reduced by 2020. In June 2009, a broad-based Energy Efficiency Committee proposed 125 measures to achieve the 37 TWh of energy-savings (of which 5 TWh for electricity) by 2020. The committee has put an emphasis on sectors outside emissions trading. Urban structure, buildings, transport, households, agriculture and industry as well as the

public and private service sectors were all under examination. It was concluded that the biggest savings can be achieved through: new vehicle technology (8.5 TWh), new building and renovation construction regulations (4.9 TWh), more challenging energy efficiency agreements (2.8 TWh) and stricter equipment energy requirements (2.1 TWh). These four measures should account for half of the savings target.

In the energy-intensive industry, the impact of emissions trading and other measures is expected to enhance the efficiency of energy use by around 8 TWh by 2020. New energy efficiency measures currently being prepared include, for example, a substantial strengthening of energy information and advice targeting consumers and an Act on energy efficiency in public corporations. Resource efficiency will also play a key role towards a low-carbon economy.

Owing in part to its relatively large share of industry, energy intensity in Finland is higher than that of its neighbours. The government has placed a priority on improving energy efficiency and has adopted an active stance.

Despite the prevalence of energy-intensive industrial sectors and the high dependence on energy imports, energy efficiency does not rank high on the political agenda. Improvements are expected only via indirect market-based instruments such the energy tax reform or emission trading. It is not certain whether these measures will suffice in the long-run to ensure a smooth transition towards a sustainable industrial structure in Finland.

3.25.5. The business environment

Finland scores significantly above EU average concerning almost all indicator categories, with the exception of the availability of high-speed broadband lines where it scores slightly below average.

In Finland, the Better Regulation Strategy is embedded in the 2007 Government Programme and Strategy Document and includes i.a. tools and processes such as the forward looking legislative plan, the instructions on effective law drafting, legal quality and *ex ante* impact assessment, simplification and administrative burden reduction for businesses.

Integrated guidelines for *ex ante* impact assessment were adopted at the end of 2007, which comprise a part on assessing business impacts including the impact on SMEs, on entrepreneurship and on growth of enterprises. As a continuation of the SÄVY project on business impacts (2004-2007), a working group has been set up for ex post evaluation of legislation. Public consultation of stakeholders on new regulations is based on guidelines adopted in 2010, and recent trends include electronic consultation in order to encourage a wider participation. In this respect, the programme *Sähköinen asiointi ja demokratia* (e-services and e-democracy, SADE) will establish a modernised version of an interactive participation environment in 2011.

In March 2009 the Government approved a decision-in-principle on the action plan for the reduction of the administrative burden on businesses by 25% by the end of 2012 (compared to 2006). The action plan includes a list of the most important administrative sector-specific reduction measures whose implementation will be ensured by the responsible ministries and authorities, the seven priority areas being: taxation, statistics, agricultural subsidisation procedures, food safety and quality, employers' reporting obligations, financial reporting legislation and environmental permit procedures. Public procurement was added as a priority

area in 2010. Furthermore, the development of eGovernment is considered as a key horizontal priority of the action plan.

Finland ranks first in 2009 as regards the take-up of eGovernment services by businesses. Regarding eProcurement, Finland has a mandatory notification database for ongoing public tenders and develops non-mandatory common platforms for the other phases of eProcurement.

The one-stop-shop to start-up a company (Trade Register) is fully operational.

A higher degree of competition in services including retail and wholesale trade, would contribute to downward pressure on prices and also to increasing productivity in the sheltered sectors.

3.25.6. Entrepreneurship and SME policy

The government programme for the years 2007-2011 contains guidelines and priorities for SME policy development. The government implemented the programme "Change Through Entrepreneurship and Skills" (ESF 2007-2013 programme). The aim is to provide the best possible operating environment for entrepreneurship and innovation for increasing entrepreneurial activity, creating a positive entrepreneurship culture and growth entrepreneurship.

Entrepreneurship is included in school curricula: It is one of seven main interdisciplinary themes in lower secondary school curricula and one of six themes in the upper secondary study programmes. Recently, entrepreneurship education within the education system has been intensified and educational institutions are encouraged to intensively collaborate with businesses. Female entrepreneurship is promoted by strengthening business expertise, peer guidance and a business mentoring system. In addition, special projects to promote entrepreneurship in the creative sector and the welfare sector are under way.

Despite the favourable business environment entrepreneurship culture is not particularly pronounced in the Finnish society. Improving attitudes towards entrepreneurship and risk-taking remains a challenge in order to further enhance business dynamism in the long run. From this perspective, the work being done to improve the access to finance of growth enterprises is a step to the right direction.

3.25.7. Conclusions

Finland's economy is competitive in relation to the EU average and competitiveness policies aim in the right direction. Nevertheless, Finland faces a number of challenges.

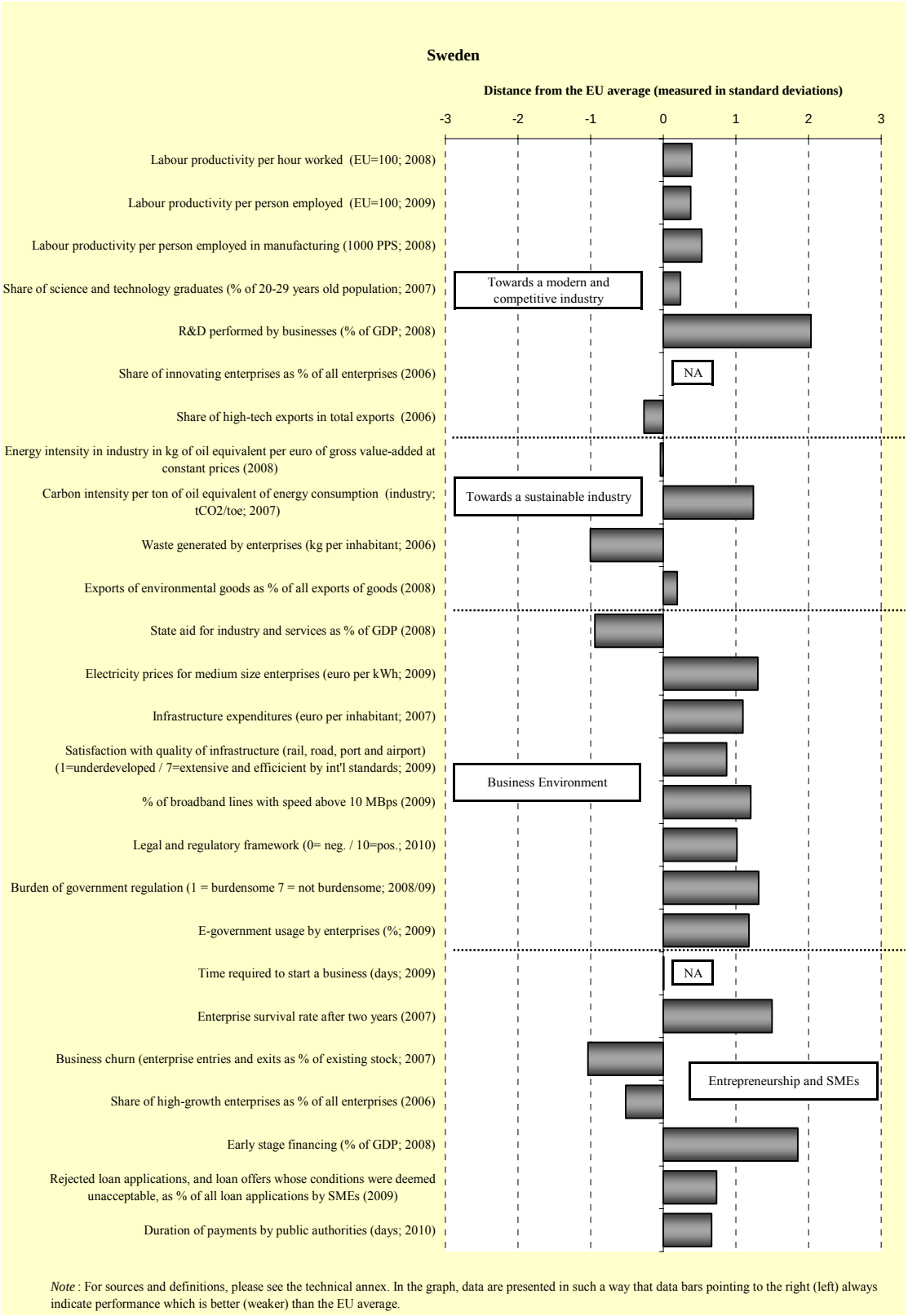
Finland's innovation policy could be further broadened to include all sectors of the economy and centred around major societal challenges, in particular demographic change, in order to diversify the economy and reduce the economic dependence on individual sectors or even firms.

Despite a generally favourable business environment the availability of early-stage finance, and acceptable general conditions relating to access to finance, the Finnish economy, with the exception of a few sectors, is not dynamic and "entrepreneurship culture" lags behind other Member States. Measures to increase the number of high-growth enterprises and start-up companies may improve business dynamism.

Climatic conditions and the industrial structure only partly explain the high energy intensity of the Finnish economy. Improving energy efficiency is important both in order to reach the climate change targets and to ensure long-term competitiveness of industry. To that end, the new Energy and Climate Strategy is a good starting point. It remains to be seen, however, whether the envisaged measures will suffice.

3.26. Sweden

3.26.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.26.2. Introduction[50]

Sweden ranks among the most competitive economies in the world according to international comparisons; this is reflected in its labour productivity, which is above the EU average, whether measured per hour worked or per person. Sweden's real effective exchange rate has depreciated since 1999, indicating increased competitiveness. Concomitantly, nominal unit labour costs in Swedish manufacturing first declined strongly and then increased again resulting in an overall increase of 3%, thus 16 percentage points below the EU average of 19%.

Sweden specialises in sectors requiring high-intermediate skills and exhibiting medium growth rates. There is a marked specialisation on high-technology sectors.

Manufacturing represents about a similar share of GDP in Sweden (20%) as in the EU as a whole (17%). Notwithstanding the fact that Sweden is one of the least specialised economies in the EU, wood and wood products, pulp, paper and publishing, and machinery are nonetheless sectors in which Sweden is particularly strong. In services, only two sectors (health and social work; electricity, gas and water supply) represent a clearly higher GDP share in Sweden than in the EU as a whole. Employment in the health and social work sector as well as in public administration has increased rapidly since 2000, rendering both sectors larger in 2009 than the manufacturing sector in terms of the number of employed persons. By 2020 employment in the manufacturing sector is forecast to increase slightly (+3%) while in all service sectors it is forecast to increase significantly, in particular in business and other services (+ 20%).

Sweden has a positive balance in the trade of goods, mainly due to surpluses in pulp, paper and publishing, machinery, transport equipment, metal products and wood products and refined petroleum. The only trade deficits worth mentioning are in food and textiles. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for Sweden in 2008 in pulp, paper and publishing and wood and wood products.

Exit from the crisis

Swedish manufacturing production fell by one quarter during the crisis. In July 2010, the level of manufacturing output stood at 86% of its pre-crisis level. The Swedish automobile industry was particularly severely hit by the economic crisis. As a consequence its two car manufacturers and their suppliers have been supported in several ways: (i) through the creation of a limited company with the task of conducting research and development and other activities in the automotive cluster (initial capital amounting to SEK 3 billion); (ii) state credit guarantees to companies in the automotive cluster for raising loans in the European Investment Bank for green technology conversion; (iii) rescue loans of up to SEK 5 billion for companies in the automotive cluster that find themselves in financial crisis; any such loans will comply with the European Commission's guidelines on state aid and will be granted against adequate security.

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[50] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

In addition, to ease credit constraints on export companies, the Swedish Export Credit Cooperation (Svensk Exportkredit) has received SEK 3 billion in new equity funding and the Swedish state's 100% stake in the holding company Venantius has been transferred to the Swedish Export Credit Cooperation to increase the latter's lending capacity. Furthermore, the Swedish Export Credits Guarantee Board (Exportkreditnämnden – EKN) guarantee framework has been raised from SEK 200 billion to 500 billion.

ALMI Företagspartner, which promotes the development of competitive SMEs and stimulates new enterprise, also received new equity funding of SEK 2 billion to enable it to increase its lending.

Companies are not currently experiencing any serious credit restrictions. However, banks remain cautious with respect to SME lending.

3.26.3. Towards an innovative industry

The Swedish business sector invests substantial resources in research and development (R&D) from an international perspective. In 2008, estimated R&D investment by companies with 50 employees or more was equivalent to 2.86% of GDP. Sweden's public investment in R&D is estimated to have reached 1% GDP in 2009, thus meeting the agreed EU objective. Sweden is among the Innovation Leaders with innovation performance well above the EU27 average. With the highest innovation performance of all compared countries within the European Innovation Scoreboard, the Swedish national innovation system shows clear strengths in several areas: A stable macroeconomic environment, a relatively well educated workforce, a handful of R&D-intensive multinational corporations, ambitious public investment in activities related to innovation and state of the art scientific performance. These strengths are reinforced by Sweden's integration into global markets. However, there are areas, such as ensuring an adequate skills supply that need continued attention.

On 28 January 2009, the parliament approved a Research and Innovation Bill for 2009-2012 providing for additional resources amounting to SEK 5 billion. New funding for university research will be allocated based on a quality assessment system and to research within fields of strategic importance for the competitiveness of Swedish business. The bill also introduces an initiative to increase the commercialisation of research results and support to Innovationsbron AB (a publicly owned company aiming at supporting the formation of new businesses based on research-related ideas). Innovation offices will be set up at a number of higher education institutions.

VINNOVA, the Swedish Governmental Agency for Innovation Systems, runs the 'Research and grow' (Forska och Växa) research and innovation programme addressing SMEs (2005-2009) and promotes Institute Excellence Centres which create international environments for research, development and innovation activity within areas of great importance to the future competitiveness and growth of Sweden (2006-2013).

In 2008, Sweden launched a pilot programme to stimulate growth among medium-sized companies ('Medium-sized companies in change'), where skills development is an important element. It is implemented in 2008-2010 with a budget of ca EUR 2.5 million.

Notwithstanding the strong Swedish R&D and innovation performance, a number of challenges remain: first, the strong dependence on a small number of large and globalised firms; second, the challenge to deal with the global economic crisis and, in particular, with the

impact on the motor vehicle industry, which suffers from structural overcapacity. The Swedish motor vehicle industry accounts for around one quarter of private sector R&D investments and for around one fifth of investments in machinery and inventory. Third, policies for supporting non-technological forms of innovation and innovation in services are lacking.

The apparent difficulty in converting large investments in R&D into growth-enhancing productive innovations (often referred to as "the Swedish paradox") indicates that the allocation of these investments could be improved. The process by which R&D investment is converted into commercially viable innovative products could also be enhanced by facilitating entrepreneurial activity.

1.1.1. Towards a sustainable industry

Sweden has low national emissions per capita and per unit of GDP compared with most other industrial countries. The relatively low emissions are largely due to a high proportion of hydro and nuclear power in electricity production and substantial use of biofuels.

Sweden puts major emphasis on the transition to an “eco-efficient economy” and implements a comprehensive policy mix with focus on sustainable growth, energy, and transport, climate change, environmental technologies and green taxes.

In 2009, the parliament adopted an integrated climate and energy policy. Sweden's climate target is a reduction in greenhouse gas emissions for those activities not covered by the EU emissions trading system of 40% by 2020 compared with 1990. The target for the share of renewable energy in total energy consumption was set at 50% by 2020 and an Action Plan to achieve it was presented in June 2010. The main instrument is the green electricity certificate scheme, which aims at generating 25 TWh of new renewable electricity in 2020 compared to 2002. The target set for energy efficiency is to decrease the energy intensity by 20 per cent by 2020 compared to 2008. The programmes to promote energy efficiency will amount to SEK 550 million a year in 2010–2012.

Several additional measures were taken. In December 2009 the Swedish Environmental Technology Council presented a national environmental technology plan. In the research and innovation bill adopted in 2009, SEK 535 million will be spent on strategic research on environment and climate during 2009-2012. The Swedish Governmental Agency for Innovation Systems has a mandate to invest SEK 40 million on green solutions and technologies. The Swedish Agency for Economic and Regional Growth has a mandate during 2008-2010 to carry out investments (about SEK 55 million) in environmentally driven business development through support directed at SMEs. The Programme for Energy Efficiency (PFE) is a financial instrument aimed at the Swedish energy-intensive industrial companies. The Swedish Government supports through the Swedish Energy Agency a number of development projects for electric cars. In December 2009 Parliament adopted a bill on climate and energy taxes, which will take effect gradually over the period of 2010-2015 to allow industry and other stakeholders to adjust.

No notable challenge has been identified in this policy area.

3.26.4. The business environment

Sweden scores above the EU average in all the business environment indicator categories, with the exception of the level of state aid.

The Better Regulation strategy is structured around five pillars: measurement of the administrative costs to businesses, regulatory impact assessment, the Better Regulation Council, consultation with the business sector, and a rolling Action Plan for Better Regulation. The Action Plan for Better Regulation, set up in 2006, is updated annually and covers a broad range of regulatory simplification measures. The Government has set a target of reducing the administrative burden on businesses by 25% until 2010, representing a cost saving of approximately SEK 25 billion. A new Action Plan for Better Regulation for 2011-2014 is under preparation.

The Ordinance on Impact Assessment, which entered into force in January 2008, states that Impact Assessment should take into account small businesses in the regulatory design, if relevant. The new Regulatory Council, mandated with ensuring the quality of impact assessments and promoting administrative burden reduction in regulatory design became operational in January 2009.

eGovernment usage by enterprises in 2009 is above the EU average. In January 2008, the Government adopted an eGovernment Action Plan focused on back-office integration and infrastructure development. Sweden has a non-mandatory national eProcurement platform.

Sweden's state-run retail pharmacy monopoly was abolished with effect from 1 July 2009. It is the result of a reform of the Swedish pharmacy system initiated in 2008. In 2009 the government launched the liberalisation of railroad traffic, which will be completed in three stages by 1 October 2010. Since January 2010, the Competition Authority can take action to prevent Swedish government bodies from engaging in business activities that distort competition, thereby protecting small businesses operating in local markets from unfair competition.

In November 2009 the Swedish Government presented a national broadband strategy. The objective is to achieve that 90% of all households and businesses should have access to broadband of at least 100Mbit/s by 2020.

The one-stop-shop to start-up a company (Företagsregistering) is fully operational.

Regarding business environment, Sweden has increased the pace on improving competition. It is, however, important that the government continues to actively follow up on the comprehensive report published in 2009 by the Swedish Competition Authority, which identified a number of areas where competition could be strengthened, and to vigorously enforce the new Competition Act, which entered into force in 2008. Among the areas identified were markets, where private and public companies compete with each other and in public procurement. There has been a trend break with administrative costs for business declining as a result of the government's extensive work. A 7.3% (or almost SEK 7 billion) reduction between 2006 and 2010 is, however, only a step in the right direction towards the Sweden's ambitious target of a 25 per cent reduction in administrative costs for business.

3.26.5. Entrepreneurship and SME policy

Regarding entrepreneurship, 'Start-up' offices giving support and guidance to people who want to become entrepreneurs have been established in nine cities in Sweden. In July 2010 the Government extended until 30 March 2011 the period for establishing start-up offices until 30 March 2011 and allocated SEK 4 million to this programme. EUR 2 million a year between 2008 and 2010 is aimed at improving advice and access to credit for immigrant entrepreneurs. In its Budget Bill for 2009, the Government announced its ambition to make entrepreneurship an integrated theme throughout the education system. The Government has already adopted decisions on several initiatives in support of the development of entrepreneurship programmes in schools and higher education. The initiatives are brought together in a strategy for entrepreneurship published in May 2009. Moreover, a national programme aimed at promoting women entrepreneurship is running since 2007, allocating SEK 100 million each year until 2014.

In November 2008, Sweden launched a pilot programme to stimulate growth among medium-sized companies, where skills development is an important element. It will be implemented during 2008-2010 with a total budget of about SEK 24 million.

A new law came into force on 1 January 2009 which regulates how Swedish municipalities and county councils are to proceed if they decide to introduce a freedom-of-choice system for patients and clients in their health care and social care systems. Under the new law, more people in need of care and assistance will be able to choose who they want to provide it. The act is an alternative to the Public Procurement Act.

All public administrations should be able to implement public procurements electronically by 2010. Special efforts are deployed to make tendering by SMEs easier.

A number of measures focus on SMEs internationalisation:

The Swedish Trade Council has taken the initiative to start the Business Opportunity Project (BOP) that targets small companies with a turnover of less than EUR 10 million. It offers companies help in entering international markets through a standardised and subsidised service consisting of three steps: market check, visiting programme and follow- up. The Trade Council also implements: Steps to Export, a service offering SMEs free advice on planning their international business development.

Since 2007 financial support through 'Export loans' is given to small firms with less than 50 employees to help them in their internationalisation. The loans are administrated by ALMI Företagspartner and initially approximately EUR 50 million has been set aside for this initiative.

The Internationalisation Guide is a web portal aiming at guiding exporting companies, or firms that are about to start exporting, to various resources including advisory services, export financing and expertise on export markets.

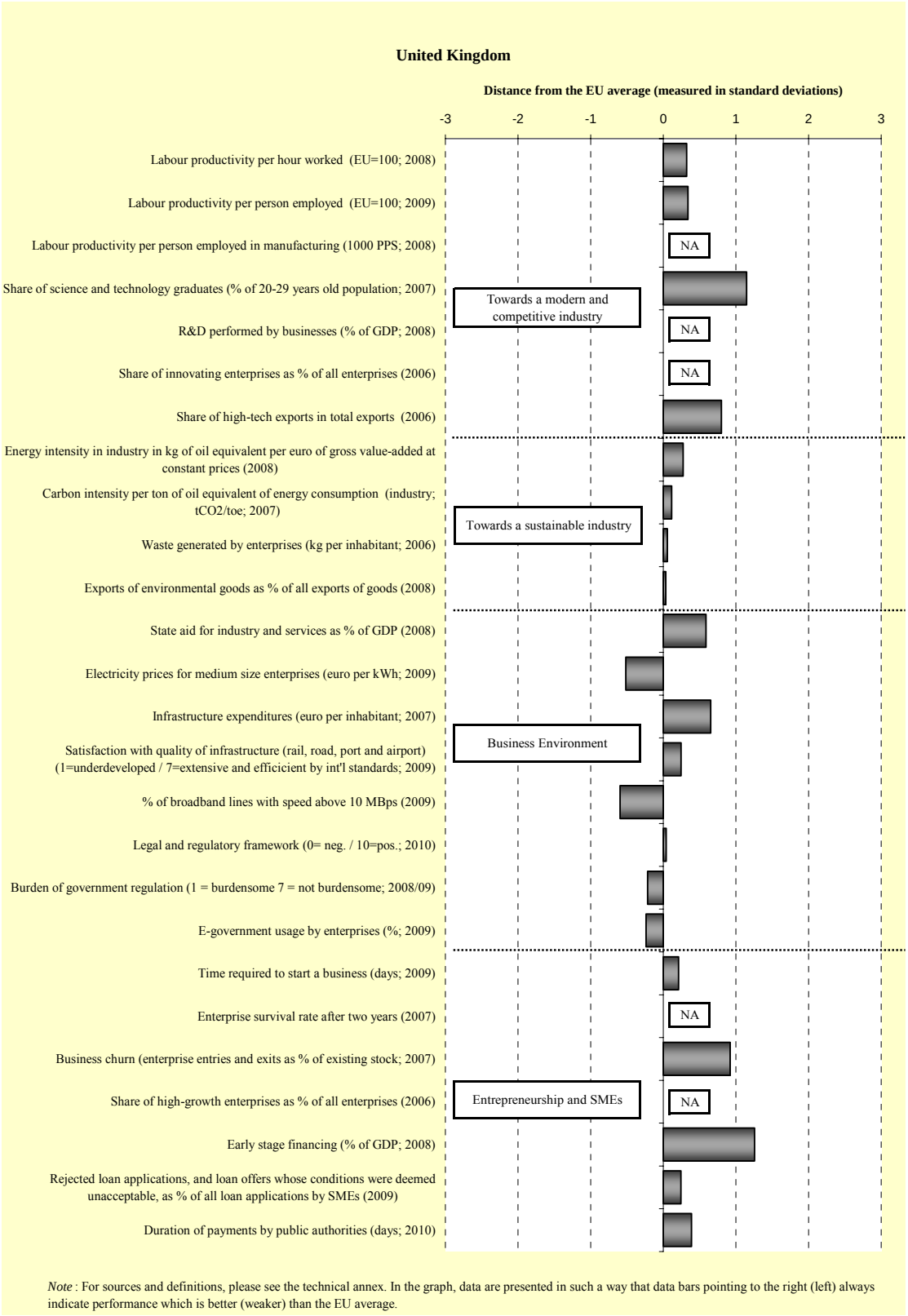
Sweden shows a consistent although mixed performance compared with the EU average. In particular, there is scope for improvement in the desire to become an entrepreneur, where Sweden (21%) scores below the EU average (30%).

3.26.6. Conclusions

Sweden ranks among the most competitive economies in the world and there are no notable major challenges identified. However, in the longer term, Sweden might benefit from loosening its dependence on a limited number of large firms and target new markets. This involves both developing a stronger sector of fast-growing SMEs and the ability to attract green investments. Although total R&D investment in Sweden is high by international standards, Sweden would benefit from continued efforts to commercialise R&D, to consider non-R&D drivers of innovation, and to bring innovation closer to market needs. In view of a negative demographic trend, securing an adequate supply of skills, especially in Maths-Science-Technology education, is vital for future competitiveness.

3.27. The United Kingdom

3.27.1. Indicators graph



Note : For sources and definitions, please see the technical annex. In the graph, data are presented in such a way that data bars pointing to the right (left) always indicate performance which is better (weaker) than the EU average.

3.27.2. Introduction[51]

The United Kingdom's labour productivity, measured per hour and per person, was stable and above the EU average. Nominal unit labour costs in UK manufacturing increased by 17% between 2000 and 2009 with a remarkable acceleration during the second half of the decade. However, the overall increase still remained below the EU average of 19%. The United Kingdom is one of the very few EU members where the real effective exchange rate depreciated from 1999 to 2009, indicating increased competitiveness.

The United Kingdom showed no clear specialisation with regard to skills intensity in 2007; high-skill sectors have gained ground since 1997 while low-skill sectors became less important. This picture is accompanied by a clear and stable specialisation in sectors with high technology intensity; specialisation in medium-high technology sectors is decreasing and low-technology sectors play an important and growing role. Sectors with negative growth in the EU played a relatively strong role in the United Kingdom in 1995 and 2007.

Manufacturing has a smaller weight for the United Kingdom than for the EU in total (13% vs. 17% of value added in 2008). Only pulp, paper and publishing shows an above average share in manufacturing. There is, however, clearer specialisation in mining and quarrying and in financial intermediation. Employment figures show the high level of productivity in manufacturing but also its decreasing importance over time. Forecasts until 2020 expect an increase in employment in business and other services by almost 25% while employment in manufacturing might drop by some 13%.

The United Kingdom's showed a deficit in the trade of goods in 58 of the last 64 years, with the last surplus being in 1982. The negative trade balance in manufacturing mainly resulted from deficits in virtually every sub-sector of manufacturing, except aerospace, where the UK enjoys a very strong, albeit deteriorating, global market share. The Revealed Comparative Advantage (RCA), measured relative to the EU and concentrating on manufacturing, shows particular strengths for the United Kingdom in 2006 only in electrical and optical equipment.

Exit from the crisis

Manufacturing output decreased by 15% in the course of the crisis. In July 2010, output was still almost 10% lower than the level prior to the crisis. The UK introduced a car scrapping scheme for private households that ended in February 2010. In addition, the automotive industry is supported by the Automotive Assistance Programme (AAP), a support package that aims to unlock up to GBP 2.3 billion (0.15% of GDP) in loan guarantees, and, exceptionally, loans to the UK automotive sector. The programme support is offered through the EU's Temporary State aid Framework. Also in line with the Temporary State aid Framework the UK made a budget of EUR 9.6 billion available for guarantees, loans and green products. In addition, the increased de minimis aid threshold has been widely used by SMEs to reduce the effects of the crisis. Almost 1500 SMEs in manufacturing and services received aid under this scheme. The government also created a Strategic Investment Fund (SIF) of GBP 750 million (0.05% of GDP) in 2009 and 2010 combined to support investment in a range of emerging industrial sectors in the UK.

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[51] For main sources used see the methodological annex. The cut-off date for all data and qualitative information is 31 August 2010.

Despite increases in margins, the overall cost of finance for business is now more favourable than in 2007 and 2008. In addition, the majority of businesses can obtain financing. For instance, the March 2010 Bank of England Trends in lending report shows 85.9% of SME loans and overdrafts by value were approved in January 2010. There has been a decline in the demand for finance from SMEs since 2007 and 2008 as SMEs have become more cautious about taking on external debt. The February 2010 SME Business Barometer survey shows, 82% of the SME employers who did not apply for finance in the last 6 months gave their reason as not needing it and 8% reported they did not want to take on additional risk. While some firms have faced problems with international trade finance, indications from the private sector are that these are reducing. There are therefore no current plans to introduce a new trade credit insurance scheme.

3.27.3. Towards an innovative industry

In the field of R&D and innovation, the UK has a strong research base, reflected by its scientific performance and quality assurance system, and established knowledge transfer mechanisms, although the engagement of companies in innovative activities is not well developed particularly in the important services sectors. The UK's strong innovation performance is confirmed by its 5th rank on the summary innovation index out of 27 Member States based on the European Innovation Scoreboard (EIS 2008). The UK's good standing is due to excellent performance on a few indicators, most notably lifelong learning and venture capital.

A number of measures can be singled out to support innovation policy. "Make Your Mark" is aimed at supporting a favourable innovation climate via innovation management advice to companies. "Enterprise Finance Guarantee" supports lending where businesses are able to demonstrate to the lender that they are viable and are able to service the loan but lack the collateral and/or track record to secure a normal commercial loan. The "Economic Challenge Investment Fund" provided support for a diverse range of activities including ones directly supportive of innovation, including support for knowledge transfer, training of researchers, recruitment and further development of skilled personnel in enterprises and support to organisational innovation.

Knowledge-intensive services, such as finance and business services and engineering, are an increasingly large part of the UK's ongoing economic success and UK innovation activity. However, innovation in these sectors is not usually technology-based. Supporting and encouraging innovation in these sectors is a key challenge. A number of other challenges include boosting the relatively weak intensity of innovation activity in enterprises, translating knowledge into 'new to market products' and intellectual capital, improving future skills needs, and raising private R&D investment and innovation continues to be an important challenge for the UK.

3.27.4. Towards a sustainable industry

In addition, the government has introduced targeted measures to help UK enterprises through the recession and to lay the foundation for a sustainable recovery. In this context, the budget for 2009 announced a GBP 750 million Strategic Investment Fund to support advanced industrial projects of strategic importance focusing on emerging technologies and regionally important sectors. Investment via the Strategic Investment Fund is well underway and to date covers a wide range of industries, but with a clear focus on high-tech and low-carbon industries. In the context of the Low Carbon Industrial Strategy published in July 2009 the

UK has deployed a comprehensive range of policies to support the transition to a low carbon future. Budget 2009 committed a further £1.4 billion in targeted support for the low carbon economy and showed how the Government's policy framework is enabling £50 billion of investment in low carbon over the period 2008-11.

3.27.5. The business environment

The Government announced a 'one-in, one-out' rule in the Coalition document published on 20 May 2010. The rule requires that no new domestic regulation is brought in without other regulation being cut by a greater amount. This commitment is intended to bear down on the burden of regulation, boosting enterprise and driving economic growth and innovation.

The Administrative Burden Reduction Programme was a key part of the previous Government's better regulation agenda. This five year programme, launched in 2005, was designed to cut unnecessary bureaucracy and remove out-of-date regulations- making life simpler for business and the voluntary sector. The programme has delivered more than £3.5bn of net annual savings, representing a reduction of over 26.5% in administrative burden placed on business by government. The programme has also delivered a reduction of over 34% in the number of information requests that central departments and agencies request from frontline public sector workers. The Government has committed to publishing a forward programme of all regulatory measures due to be implemented in the UK to inform business and the public.

The *ex ante* impact assessment policy was recently updated. All new regulatory and policy proposals now require in their impact assessment and explanatory memorandum consideration of exemptions or simplified enforcement for small businesses. A guidance document on the Small Firms Impact Test and a handbook for officials on regulating for small businesses have also been published. In addition, the introduction of a forward-looking planning tool has been announced to allow companies to predict more clearly the effect of upcoming regulation. Public consultation of stakeholders on new regulations is embedded in the Code of Practice on Consultation.

Despite significant improvement over the period 2005-2009, take-up by businesses of eGovernment services is still below the EU average in 2009. The UK has a non-mandatory national eProcurement platform (Buying solutions) which includes an electronic marketplace containing details of Public Sector supplier contracts, a Purchase to Pay solution and a pan-Public Sector data warehouse e Procurement.

The government-run BusinessLink network currently operates as a one-stop-shop for business advice, including start-ups. It includes an online portal, telephone helpline and face to face advice. All necessary forms can be accessed from the Business Link website, but they are not processed by one single organisation. Incorporation of a company still takes place with Companies House (online). Although Companies House remains a separate entity for incorporation of a company, the BusinessLink portal may otherwise been considered a "one-stop-shop" for start-ups and as the portal for accessing the UK's point of single contact under the Services Directive.

The Government had already prior to 2007 put measures in place that anticipated many of the recommendations later included into the European Small Business Act (SBA). The United Kingdom scores slightly better than the EU average concerning the level of state aid (i.e. provides less state aid than the EU average), but slightly below average concerning electricity prices for medium size enterprises and the availability of high-speed broadband lines.

3.27.6 Entrepreneurship and SME policy

The United Kingdom scores clearly above the EU the enterprise survival rate after two years, business churn and early stage financing. It does not score below the average in any of the other main indicator categories used.

The Local Enterprise Growth Initiative (LEGI) was announced in the 2005 budget. A total of EUR 482 million has been allocated to the programme up to 2010/2011. It intends to help the most deprived local areas, through enterprise and investment. Three key outcomes are strived for: to increase total entrepreneurial activity, to support sustainable growth, and to attract appropriate inward investment and franchising. In 2007, the women's enterprise ambassadors' network was launched. Some 1,300 ambassadors are now in place instilling women with the confidence to successfully start and run a business. The government started pushing the entrepreneurship education agenda in 2003. It is now integrated into the cross government enterprise strategy. Moreover, an Enterprise Network has been established to provide support for a sustainable network of Enterprise Learning Partnerships (ELPs). The National Council for Graduate Entrepreneurship (NCGE) is developing its University Enterprise Networks which bring together universities, private sector businesses, and the regional agencies in projects to promote entrepreneurship to students and post graduates. From April 2008, the NGCE has received additional funding of about EUR 350 000 for this.

3.27.6. Conclusions

The relatively high level of productivity and the depreciation of the real effective exchange rate are clear signs for the generally high level of competitiveness of the UK economy. However, the economic performance depends to a certain degree the primary sector and on financial services which might indicate some vulnerability to external shocks. The manufacturing base is rather small. While the research base and the innovation performance are, overall, strong this is mainly due to lifelong learning and venture capital. Weaknesses in innovation, especially in the important service sectors, remain. There is a comprehensive policy towards a sustainable industry.

4. METHODOLOGICAL ANNEX

4.1. Main Sources

4.1.1. General

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4.2. Data set and methodological approach

4.2.1. Data set

The following data set presents the data underlying the graphs presented in this report.

Policy objective / indicators	Towards a modern and competitive industry										
	Labour productivity per hour worked (EU=100; 2008) Source: Eurostat	**Labour productivity per person employed (EU=100; 2009)** Source: Eurostat	**Labour productivity per person employed in manufacturing (1000 PPS; 2008)** Source: Eurostat	**Unit labour costs, level in manufacturing (2005 = 100; 2009)** Source: OECD	**Share of science and technology graduates (% of 20-29 years old population; 2007)** Source: Eurostat	**R&D performed by businesses (% of GDP; 2008)** Source: Eurostat	**Share of innovating enterprises as % of all enterprises (2006)** Source: Community Innovation Survey	**Share of high-tech exports in total exports (2006)** Source: Eurostat	**Real effective exchanges rates deflated by nominal unit labour costs (total economy) against a panel of 36 countries (1999=100; Q4 2009)** Source: DG ECFIN	**Trade balance of goods as % of total exports of goods (2009)** Source: Eurostat	**Trade balance of services as % of total exports of services (2009)** Source: Eurostat
BE	135	124	74	109	14.0	1.3	59.8 [1]	6.6	108 [1]	5	8
BG	36 [1]	37	13	133 [1]	8.4	0.2	2634	3.3	144	-42	32
CZ	62	72	32	98	12.0	0.9	47.2	12.7	167	7	7
DK	110	101	:	114	16.4	1.9	47.9	12.8	124	11	7
DE	126	105	64	113	11.4	1.8	70.9	14.1	96	17	-10
EE	54	64	24	134 [1]	13.3	0.6	62.1	8.0	149	-13	42
IE	119	135	112	100	18.7	0.9	69.7 [1]	29.0	130	46	-7
EL	81	102	52	108	8.5	0.2 [1]	54.7	5.7	109	-198	47
ES	106	111	51	117	11.2	0.7	42.0 [1]	4.9	117	-32	29
FR	132 [1]	120	58	106 [1,2]	20.7	1.3	51.0 [1]	17.9	108	-16	10
IT	102	110	50	122	12.1	0.6	52.0 [1]	6.4	120	-1	-14
CY	79	89	32 [1]	116 [1]	4.2	0.1	58.9	21.4	116	-523	59
LV	44	50	19	178 [1]	9.2	0.2	:	4.2	144	-26	43
LT	55	56	32 [1]	123 [1]	18.1	0.2	34.6	4.7	139	-11	22
LU	190	168	74	127	:	1.3	68.1	40.7	:	-17	41
HU	60	70	35 [1]	112	6.4	0.5	31.6	20.3	142	7	11
MT	77	88	:	104 [1,2]	7.1	0.4	37.7	54.6	121	-72	37
NL	139	110	71	112	8.9	0.9	45.0	18.3	120	11	8
AT	113	112	:	106	11.1	1.9	65.9	11.2	100	-4	30
PL	50	65	27	96	13.9	0.2	36.7	3.1	98	-9	17
PT	64	74	:	106 [1,2]	18.1	0.8	59.7	7.0	119	-61	37
RO	45	47	24 [1]	134	11.9	0.2	41.5	3.9	215	-34	-5
SI	84	81	38	106 [1]	9.8	1.1	:	4.7	112	-1	24
SK	75	79	39	92	11.9	0.2	31.5 [1]	5.4	190	1	-28
FI	110	107	70	105	18.8	2.8	51.9	18.1	116	4	9
SE	114	111	63	115	13.6	2.8	:	13.4	96	9	24
UK	112	110	:	114 [2]	17.5	1.2	:	26.5	87	-37	30
Weighted EU 27	100	100	51			1.2	52.9	16.6	127	-10 [1]	10 [1]
EU unweighted	92	92	48		12.6	0.9	49.9	14.0			
Max	190	168	112	178	20.7	2.8	70.9	54.6	215	46	59
Min	36	37	13	92	4.2	0.1	26.3	3.1	87	-523	-28
Standard deviation	37	30	24		4.3	0.8	13.2	12.3			

[1] 2007

[1] 2007

1 2007
2 Total economy

[1] 2007

[1] 2004

[1] BE and LU together

[1] Trade with 3rd countries

[1] Trade with 3rd countries

Policy objective / indicators	Towards a sustainable industry			
	Energy intensity in industry in kg of oil equivalent per euro of gross value-added at constant prices (2008) Source: Eurostat	**Carbon intensity per ton of oil equivalent of energy consumption (industry; tCO2/toe; 2008)** Sources: EEA, Eurostat	**Waste generated by enterprises (kg per inhabitant; 2006)** Source: Eurostat	**Exports of environmental goods as % of all exports of goods (2008)** Source: Eurostat (COMEXT)
BE	0.23	1.7	5.2	0.40
BG	0.78	2.6	31.1	0.14
CZ	0.31	2.0	2.1	0.89
DK	0.09	1.7	2.3	0.43
DE	0.11	1.9	4.0	1.13
EE	0.37	2.0	14.2	0.12
IE	0.05	2.6	6.5	0.23
EL	0.19	3.2	4.2	0.05
ES	0.21	2.3	3.1	0.32
FR	0.15	1.6	6.6	0.47
IT	0.15	1.9	2.1	0.49
CY	0.30	4.3	1.9	5.51
LV	0.36	1.8	0.4	0.20
LT	0.20	1.8	1.9	0.11
LU	0.33	2.3	18.8	0.91
HU	0.22	1.9	1.9	0.73
MT	:	2.2	6.9	0.06
NL	0.16	1.0	5.2	0.37
AT	0.15	2.2	6.1	0.77
PL	0.27	2.6	6.8	0.27
PT	0.24	1.8	3.2	0.63
RO	0.59	2.8	15.1	0.21
SI	0.19	1.8	2.5	0.45
SK	0.33	2.8	2.4	0.13
FI	0.26	1.0	13.4	0.48
SE	0.16	1.0	12.4	0.84
UK	0.11	1.8	5.2	0.68
Weighted EU 27	0.16	1.9	5.5	0.64
EU unweighted	0.25	2.1	6.9	0.63
Max	0.78	4.3	31.1	5.51
Min	0.05	1.0	0.4	0.05
Standard deviation	0.16	0.7	6.8	1.02

Policy objective / indicators	Business Environment							
	State aid for industry and services as % of GDP (2008) Source: State Aid Scoreboard 2009	**Electricity prices for medium size enterprises (euro per kWh; 2009)** Source: Eurostat	**Infrastructure expenditures (euro per inhabitant; 2007)** Source: OECD, Eurostat calculation	**Satisfaction with quality of infrastructure (rail, road, port and airport) (1=underdeveloped / 7=extensive and efficicient by int'l standards; 2009)** Source: The Global Competitiveness Report 2008-2009	**% of broadband lines with speed above 10 MBps (2009)** Source: DG INFSO	**Legal and regulatory framework (0= neg. / 10=pos.; 2010)** Source: IMD World Competitiveness Center	**Burden of government regulation (1 = burdensome 7 = not burdensome; 2008/09)** Source: The Global Competitiveness Report 2008-2009	**E-government usage by enterprises (%; 2009)** Source: Eurostat
BE	0.36	0.1026	:	6.0	45	2.8	2.7	69 [1]
BG	0.12	0.0639	65	3.1	55	3.4	3.1	60
CZ	0.78	0.1057	214	4.4	23	3.5	2.7	66
DK	0.71	0.0738	248	6.0	27	5.9	3.8	90
DE	0.57	0.0975	210	6.5	23	4.4	3.0	65
EE	0.09	0.0587	162	4.6	1	5.5	4.5	79
IE	0.38	0.1206	450	4.2	5	6.1	3.1	89
EL	0.33	0.0948	:	4.2	26	2.7	2.4	81
ES	0.40	0.1098	300	5.2	13	3.2	2.7	65
FR	0.39	0.0667	285	6.3	:	3.5	2.3	75
IT	0.29	0.1027 [1]	:	3.8	7	3.2	2.2	83
CY	0.47	0.1164	:	5.5	1	:	4.0	72
LV	0.20	0.0896	196	4.2	14	:	3.2	64
LT	0.53	0.0924	121	4.6	23	4.1	2.9	91
LU	0.15	0.1096	:	5.5	7	5.8	4.2	89
HU	1.81	0.1221	102	4.0	:	3.0	2.1	68
MT	1.74	0.1506	:	4.7	10	:	3.0	79
NL	0.25	0.0940	:	6.0	:	5.1	2.9	83
AT	0.38	0.0897 [2]	287	5.8	13	5.7	3.5	79
PL	0.80	0.0857	110	2.9	1	3.7	2.7	61
PT	0.92	0.0919	178	6.1	47	2.5	2.8	77
RO	0.18	0.0811	163	3.0	45	3.7	3.0	41
SI	0.47	0.1063	322	4.6	21	3.1	3.8	89
SK	0.42	0.1416	127	3.9	15	3.4	2.9	92
FI	0.44	0.0663	250	6.2	10	6.1	4.3	96
SE	0.82	0.0662	299	5.8	35	5.4	4.0	86
UK	0.17	0.1077	258	5.1	6	4.2	3.0	68
Weighted EU 27	0.42	0.0959	197		16			71
EU unweighted	0.52	0.0966	217	4.8	20	4.2	3.1	76
Max	1.81	0.1506	450	6.5	55	6.1	4.5	96
Min	0.09	0.0587	65	2.9	1	2.5	2.1	41
Standard deviation	0.42	0.0228	93	1.0	16	1.2	0.7	13

1 2007
2 2008

[1] 2008

Policy objective / indicators	Entrepreneurship and SMEs						
	Time required to start a business (days; 2009) Source: World Bank Doing Business 2010	**Enterprise survival rate after two years (2007)** Source: Eurostat	**Business churn (enterprise entries and exits as % of existing stock; 2007)** Source: Eurostat	**Share of high-growth enterprises as % of all enterprises (2006)** Source: Eurostat	**Early stage financing (% of GDP; 2008)** Source: Eurostat	**Rejected loan applications, and loan offers whose conditions were deemed unacceptable, as % of all loan applications by SMEs (2009)** Source: Flash Eurobarometer survey on SMEs' access to finance	**Duration of payments by public authorities (days; 2010)** Source: European Payment Index by Intrum Justitia
BE	4	:	12	:	0.029	5	76
BG	18	51	23	8.8	:	14	:
CZ	15	65	20	5.1 [1]	0.000	22	35
DK	6	66	25	3.9	0.037	29	38
DE	18	:	15	:	0.019	26	36
EE	7	78	21	5.9	:	45	24
IE	13	:	15	:	0.015	28	49
EL	19	:	:	:	0.000	36	155
ES	47	73	17	4.3	0.009	31	153
FR	7	:	17	:	0.023	19	65
IT	10	75	16	8.1	0.001	17	186
CY	8	91	5	:	:	20	75
LV	16	71	24	5.9 [1]	:	38	33
LT	26	55	34	8.2 [1]	:	14	60
LU	24	78	18	4.0	:	12	:
HU	4	62	21	4.0	0.002	12	45
MT	:	:	:	:	:	37	:
NL	10	65	:	3.6 [1]	0.038	54	49
AT	28	78	14	:	0.004	16	43
PL	32	:	:	:	0.005	25	40
PT	6	54	34	:	0.034	19	141
RO	10	76	27 [1]	1.2	0.002	48	:
SI	6	:	15	:	:	19	:
SK	16	66	24	:	:	19	50
FI	14	73	:	2.9 [1]	0.033	0	24
SE	15	86	13	4.0	0.050	14	35
UK	13	:	26	:	0.040	20	48
Weighted EU 27						23	
EU unweighted	15	70	20	5.1	0.019	24	66
Max	47	91	34	8.8	0.050	54	186
Min	4	51	5	1.2	0.000	0	24
Standard deviation	10	11	7	2.2	0.017	13	47

[1] 2005 [1] 2005

4.2.2. Definitions of the indicators

Name of Indicator		Definition
Towards a modern and competitive industry		
(1)	Labour productivity per hour worked	Gross Domestic Product in Purchasing Power Standards per hour worked relative to EU-27 (EU-27=100) *Source: Eurostat*
(2)	Labour productivity per person employed	Gross Domestic Product in Purchasing Power Standards per person employed relative to EU-27 (EU-27=100) *Source: Eurostat*
(3)	Labour productivity in manufacturing per person employed	Gross value added in Purchasing Power Standards per person employed *Source: Eurostat*
(4)	Unit labour costs in manufacturing	Development (2000=100) of the following ratio: Total compensation of employees in manufacturing (in nominal values) divided by total valued added in manufacturing (in constant prices). *Source: European Commission (AMECO-Database 2000-2005) and OECD (2005-2009)*
(5)	Share of science and technology graduates	Number of new science and technology graduates (levels 5 and 6 of the "International Standard Classification of Education ISCED 5-6") divided by 20-29 years old population. The term "science" includes the following fields of education (ISCED): life sciences, physical sciences, mathematics, statistics and computing, while technology refers to graduates in engineering, manufacturing and construction. The indicator includes new tertiary graduates in a calendar year from both public and private institutions completing graduate and post graduate studies compared to the age group of 20-29 years old population that corresponds to the typical graduation age in most countries. *Source: Eurostat*
(6)	R&D performed by businesses	The indicator covers all expenditures for R&D performed within the business enterprise sector (BERD) on the national territory during a given period, regardless of the source of funds. The data on this indicator are gathered by Eurostat which applies the guidelines laid out in the Frascati Manual, the "Proposed standard practice for surveys of research and experimental development" (OECD, 2002).

		Note: Gross domestic expenditure on R&D is composed of Business enterprise expenditure on R&D, Higher education expenditure on R&D, Government expenditure on R&D and Private non-profit expenditure on R&D. *Source: Eurostat*
(7)	Share of high-tech exports	Share (in %) of exports of all high technology products in total exports. High technology products cover the following: Aerospace, Computers-office machines, Electronics-telecommunications, Pharmacy, Scientific instruments, Electrical machinery, Chemistry, Non-electrical machinery, Armament. *Source: Eurostat.*
(8)	Share of innovating companies	Enterprises which have introduced during an observation period of three years new or significantly improved goods, services and/or processes, marketing or organisational innovation or a combination of those, divided by the total number of active enterprises at the end of the observation period. *Source: Community innovation surveys (CIS). Enterprises with less than 10 employees do not belong to the total population covered by CIS.*
(9)	Trade balance of goods (% of total exports of goods)	Net exports (exports minus imports) of goods divided by total exports of goods (all in current prices). The aggregate EU trade balance includes trade with third countries only. *Source: Eurostat.*
(10	Trade balance of services (% of total exports of services)	Net exports (exports minus imports) of services divided by total exports of services (all in current prices). The aggregate EU trade balance includes trade with third countries only. *Source: Eurostat.*
(11	Real effective exchange rate	Nominal effective exchange rate deflated by nominal unit labour costs (total economy) relative to a panel of 36 countries (EU-27 + 9 other industrial countries: Australia, Canada, United States, Japan, Norway, New Zealand, Mexico, Switzerland, and Turkey). 1999=100 for all countries. A rise in the index suggests deterioration in competitiveness. The figure for each country is calculated against the rest of the countries belonging to the panel. The EU aggregate figure is calculated against the non-EU-27 countries belonging to the panel. *Source: European Commission (DG ECFIN)*
(12	Revealed Comparative Advantage (RCA)	The RCA gives the share of a given sector in manufacturing exports for a given Member State relative to

		the share of the sector in manufacturing exports of 21 EU Member States; due to the lack of data Bulgaria, Cyprus, Latvia, Lithuania, Malta and Romania are not covered here.
Towards a sustainable industry		
(13	Energy intensity in industry	Energy consumption in kg of oil equivalent divided by gross value-added (constant prices) in industry (NACE sections C: Mining and Quarrying, D: Manufacturing, E: Electricity, Gas and Water Supply). *Source: Eurostat ("environment and energy" and "national accounts")*
(14	Carbon intensity (industry)	CO2 emissions by industry excluding the energy sector and including the construction sector, per ton of oil equivalent of energy consumption in industry without the energy sector and including construction. *Sources:* *European Environment Agency* for the figures on the CO2 emissions. The relevant categories are NACE 13-22, 24-37, and 45, sections C, D and F without subsections CA (10-12), DF (23) and section E (40). *Eurostat* for the figures regarding energy consumption in tons of oil equivalent. The relevant categories are 1.A.2 - 101800 final energy consumption industry + 101022 auto producer input 2 and 3 101600 non-energy consumption.
(15	Waste generated by enterprises	The amount of hazardous and non-hazardous waste of all enterprises divided by the number of inhabitants. *Source: Eurostat*
(16	Exports of environmental goods	Exports of goods from "eco-industries" divided by total exports of goods (all in nominal values). The notion of "eco-industry" refers to sectors whose products measure, prevent, limit, minimize or correct environmental damage. The trade codes considered to cover eco-industry goods are those identified in the Ecorys study on the "Competitiveness of the EU eco-industry" (pages 190/191) of 22 October 2009, carried out for DG ENTR. *Source: European Commission (DG ENTR) calculations on the basis of Eurostat/COMEXT data.*
Business Environment		
(17	Burden of government regulation	Average mark given by business executives in a World Economic Forum survey to the question "*How burdensome is it for businesses in your country to comply with*

		governmental administrative requirements (e.g., permits, regulations, reporting)?" (1 = extremely burdensome; 7 = not burdensome at all) *Source: Global Competitiveness Report 2008-2009 of the World Economic Forum*
(18	Legal and regulatory framework	Average evaluation (0 = negative; 10 = positive) of the statement "*The legal and regulatory framework encourages the competitiveness of enterprises*" in an IMD survey of businesspeople. *Source: World Competitiveness Yearbook 2009, IMD (International Institute for Management Development).*
(19	E-government usage by enterprises	Share of enterprises using the internet to interact with public authorities (i.e. having used the Internet for one or more of the following activities: obtaining information, downloading forms, filling-in web-forms, full electronic case handling). Data are expressed in % of enterprises with 10 or more persons employed and belonging to the NACE categories D, F, G, H, I, K, O. *Source: Eurostat publishing data validated by Cap Gemini in association with the Member States.*
(20	Infrastructure expenditures per inhabitant	Sum of investment and maintenance expenditures on rail, road, inland waterways, maritime ports and airports infrastructure. *Source: OECD International Transport Forum Statistics.*
(21	Satisfaction with the quality of infrastructure	Average mark given by business executives in a World Economic Forum survey to the quality of rail, roads, ports and airports (1 = underdeveloped; 7 = extensive and efficient by international standards). *Source: Global Competitiveness Report 2008-2009 of the World Economic Forum.*
(22	Availability of high-speed broadband infrastructure	Percentage of broadband lines with speed above 10 MBps *Source: European Commission, DG INFSO Communications Committee Working Document*
(23	Electricity prices for medium sized enterprises	Average national price in Euro per kWh excluding taxes, applicable for the first semester of each year for medium size industrial consumers (annual consumption between 500 and 2000 MWh). The indicator does not cover small enterprises for reasons of data availability, nor large enterprises, since the latter often have individual contracts with energy providers. Until 2007 the prices refer to the situation on 1 January. *Source: Eurostat*
(24	State aid for industry and	The indicator measures state aid for industry and services as % of GDP. State aid as defined under article 107 TFEU that

	services	has been granted by the Member States and has been the subject of a final Commission decision, or has been granted on the basis of a block exemption regulation. Accordingly, general measures (e.g. a general tax break for expenditure on research and development), and public subsidies that have no effect on trade and do not distort or threaten to distort competition, are not covered, neither is aid compensating for services of general economic interest. *Source: European Commission, DG COMP State aid scoreboard*
	Entrepreneurship and SMEs	
(25	Starting a business (days)	Time needed to start a business, recorded in calendar days. It is the median duration that incorporation lawyers indicate as necessary. It is assumed that the minimum time required for each procedure is one day. *Source: World Bank Doing Business.*
(26	Enterprise survival rate after 2 years	Number of enterprises started in year *t* and which still existed in year *(t+2)*, divided by the total number of enterprises that started in year *t* Source: Eurostat
(27	Business churn	Sum of the number of enterprise starts and exits ("births" plus "deaths") in the reference period (year *t*), divided by the total number of enterprises active in year *t*. *Source: Business Demography (Eurostat).*
(28	Access to loans: rejected applications	Survey response on rejected loan applications and loan offers whose terms and conditions were deemed unacceptable by the enterprise, as % of all applications for bank loans of SMEs that applied in the past six months *Source: Flash Eurobarometer*
(29	Early stage financing	The indicator measures early stage financing as % of GDP. Venture capital investment data are broken down into "early stage" (seed and start-up) and "expansion and replacement" capital. Seed capital is defined as financing provided to research, assess and develop an initial concept before a business has reached the start-up phase. Start-up is defined as financing provided for product development and initial marketing, manufacturing and sales. Source: Eurostat, using data from the European Private Equity and Venture Capital Association (EVCA).
(30	Duration of payments by public authorities	Effective payment duration in days. *Source: European payment Index by Intrum Justitia.*
(31	Share of high-growth	Enterprises with average annualised growth greater than

	enterprises	20% in the number of employees, over a three-year period, and with ten or more employees at the beginning of the observation period, divided by the total number of active enterprises at the beginning of the three year period. Source : Eurostat

4.2.3. MICREF

Graph VI is based on data from MICREF. MICREF is a data-base the Commission has developed to provide a systematic record of the actual implementation of microeconomic reform measures in the EU. MICREF covers microeconomic reform measures in the 27 EU Member States, implemented between 2004 and 2009 (EU-15: 2000-2009). The database also provides information on the design and scope of reforms undertaken. The following table gives the original data used for the construction of Graph VI.

Year	Education	R&D and Innovation	Improving the (small) business environment	Start-up conditions	Competition policy	Sector specific regulation	Market integration
2000	4%	21%	12%	4%	4%	50%	5%
2001	2%	16%	16%	7%	7%	43%	9%
2002	7%	16%	17%	6%	10%	39%	6%
2003	8%	18%	20%	5%	7%	35%	7%
2004	9%	17%	24%	9%	7%	24%	10%
2005	13%	31%	24%	13%	2%	15%	2%
2006	12%	29%	32%	8%	3%	12%	5%
2007	16%	27%	26%	5%	2%	18%	6%
2008	11%	28%	36%	7%	5%	11%	2%
2009	8%	19%	48%	3%	3%	15%	6%

4.2.4. Indicators graphs in the country chapters

The graphs present, for each indicator, the distance of the respective Member State from the EU average. This distance is expressed in terms of standard deviations, which is a common measure of the spread of observations in a distribution (in this case, a measure of the variation of Member State performance around the EU average). This enhances the comparability of the presentation of indicators with different measurement units and distributions across Member States.

The data are presented in the country graphs in such a way that a bar pointing to the right always indicates a positive performance. Likewise, a bar pointing to the left always indicates a performance below average. This is straightforward for indicators, e.g. labour productivity, where high values are strived for. However, for those indicators where low values are the objective, e.g. generation of waste, the data bars in the graph have been converted so that a positive deviation from the average (bar pointing to the right) represents a *lower* generation of waste than the average. These conversions enable an easy reading of the country profiles, since all bars presenting positive values in the country profile suggest a level of performance of the respective Member State which is better than the EU average and all bars presenting negative values suggest a level of performance of the respective Member State which is below EU average.

The indicators for which such conversions have been carried out are: (1) energy intensity in industry in kg of oil equivalent per euro of gross value-added at constant prices; (2) carbon

intensity per ton of oil equivalent of energy consumption; (3) waste generated by enterprises; (4) state aid for industry and services as % of GDP; (5) electricity prices for medium size enterprises, (6) time required to start a business; (7) rejected loan applications, and loan offers whose conditions were deemed unacceptable, as % of all loan applications; (8) duration of payments by public authorities.

The indicators presented in the above table (under 1.2) for which the distance from the EU average would not be meaningful (exchange rates and trade balances) are quoted in the text.

The EU averages used to show the respective standard deviations in the country profiles are the values for the EU as a whole and, hence, weighted averages of Member States performance. For the following nine indicators, however, unweighted arithmetic averages have been used due to missing EU totals: share of science and technology graduates, satisfaction with quality of infrastructure, legal and regulatory framework, time required to start a business, enterprise survival rate, business churn, early stage financing, duration of payments by public authorities, and share of high-growth enterprises as % of all enterprises.

4.2.5. Methodological remarks to the introductory sections of the country chapters

The introductory section of the country chapters refers *inter alia* to three different *taxonomies* to analyse the sectoral structure of an economy: the sectoral structure by (1) skill intensity, (2) technology intensity and (3) growth intensity. While the first two concentrate on manufacturing only [based on the two digit NACE Rev 1 classification (31 manufacturing sectors) and the OECD Stan database (22 manufacturing sectors)], the last one covers all of the economy and is based on sections of NACE Rev 1 classification (29 sectors).

All three taxonomies use as a starting point the sectoral structure of value added. The text concentrates on the specialisation of a given country on a specific group of sectors, e.g. the share of value added of its high skill sectors relative to the share of high skill sectors in the EU in total. It is, thus, important to note that an increasing or decreasing specialisation does not necessarily imply a major impact on the economy as a whole as some sub-groups are rather small, in particular the group of sectors with negative growth in the EU.

For an in-depth presentation and more sources, see European Commission (2009), EU Industrial Structure 2009 – Performance and Competitiveness, pp 64-72, at: http://ec.europa.eu/enterprise/newsroom/cf/itemshortdetail.cfm?item_id=3934. The analysis in the country chapters uses updated data for 1997 and 2007.

4.2.5.1. Taxonomy by labour skill intensity

This taxonomy classifies sectors in four different groups according to the educational attainment of the workforce of the sector:

High skill sectors had a share of 42.6% in EU value added in 2007, up from 41.2% in 1997. They comprise: Mineral oil refining; coke and nuclear fuel; chemicals; office machinery; electronic valves and tubes; telecommunication equipment; radio and television receivers.

High-intermediate skill sectors had a share of 15.2% in EU value added in 2007, up from 14.9% in 1997. They comprise: Scientific instruments; other instruments;

other transport equipment; building and repairing of ships and boats; aircraft and spacecraft; railroad equipment and transport equipment not elsewhere classified.

Low-intermediate skill sectors had a share of 26.5% in EU value added in 2007, after 26.6% in 1997. They comprise: Wood and products of wood and cork; pulp, paper and paper products, printing and publishing; fabricated metal products; machinery and equipment n.e.c.; insulated wire; other electrical machinery and apparatus n.e.c.

Low skill sectors had a share of 15.7% in EU value added in 2007, down from 17.2% in 1997. They comprise: Food, drink and tobacco; textiles, clothing, leather and footwear; rubber and plastics; non-metallic mineral products; basic metals; motor vehicles; furniture; miscellaneous manufacturing; recycling.

4.2.5.2. Taxonomy by technology intensity

This taxonomy was developed by the OECD and classifies sectors in four different groups depending on their R&D intensity:

High-technology sectors had a share of 9.5% in EU value added in 2007, up from 8.5% in 1997. They comprise: Pharmaceuticals; office, accounting and computing machinery; radio, television and communication equipment; medical, precision and optical instruments; aircraft and spacecraft.

Medium high-technology sectors had a share of 35.7% in EU value added in 2007, up from 32.2% in 1997. They comprise: Chemicals excluding pharmaceuticals; machinery and equipment n.e.c.; electrical machinery and apparatus n.e.c.; motor vehicles, trailers and semi-trailers; railway and transport equipment n.e.c.

Medium low-technology sectors had a share of 29.6% in EU value added in 2007, down from 30.5% in 1997. They comprise: Coke, refined petroleum products and nuclear fuel; rubber and plastic products; other non-metallic mineral products; basic metals; fabricated metal products; building and repairing of ships and boats.

Low-technology sectors had a share of 25.2% in EU value added in 2007, down from 28.8% in 1997. They comprise: Food products, beverages and tobacco; textiles, textile products, leather and footwear; wood and products of wood and cork; pulp, paper, paper products, printing and publishing; manufacturing n.e.c.; recycling.

4.2.5.3. Taxonomy by growth intensity

This taxonomy classifies sectors in five different groups depending on their average annual growth rate in the EU from 1995 to 2007. Hence, they are not referring to the growth performance of the sector in question in each Member State which may have been higher or lower. Contrary to the other taxonomies, this grouping also covers service sectors.

High growth sectors with an average annual EU growth rate from 1995 to 2007 between 3.4 and 6.5%. They had a share of 38.8% in EU value added in 2007, up from 35.3% in 1995, and comprise: Real estate and business activities; financial intermediation; transport and communication; chemicals; electrical and optical equipment.

Medium-high growth sectors with an average annual EU growth rate from 1995 to 2007 between 2.5 and 3.0%. They had a share of 18.3% in EU value added in 2007, down from 19.5% in 1995, and comprise: Machinery n.e.c.; wholesale and retail trade; basic metals and metal products; rubber and plastics; transport equipment.

Medium-low growth sectors with an average annual EU growth rate from 1995 to 2007 between 1.5 and 2.3%. They had a share of 17% in EU value added in 2007, up from 16.7% in 1995, and comprise: Pulp, paper and publishing; activities of households; other manufacturing; non-metallic mineral products; health and social work; other services; hotels and restaurants.

Low growth sectors with an average annual EU growth rate from 1995 to 2007 between 0.4 and 1.4%. They had a share of 24.3% in EU value added in 2007, down from 26.2% in 1995, and comprise: Refined petroleum; electricity, gas and water supply; agriculture and forestry; public administration; education; food, drinks and tobacco; construction; wood and wood products.

Negative growth sectors with an average annual EU growth rate from 1995 to 2007 between -3.9 and -1.2%. They had a share of 1.6% in EU value added in 2007, down from 2.2% in 1995, and comprise: Mining and quarrying; leather and footwear; fishing; textiles and clothing.