The Lisbon Review 2008

Measuring Europe's Progress in Reform

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Introduction

The present international financial crisis, coupled with rising food and oil prices, and the related economic slowdown in the world's leading economies, is confronting policy-makers with significant economic management challenges. And despite initial discussions of economic decoupling, Europe's economies have not been spared from the effects of a crisis that mainly originated in the US. As a result, the overall economic outlook for the region is now less favourable than just a year ago.[2] The volatility in financial markets underscores the importance of a competitiveness-supporting economic environment to better enable national economies to weather these types of shocks and to ensure solid economic performance going into the future.

At the March 2000 European Council in Lisbon, Portugal, Europe's heads of state and government set a 10-year timeline to make the European Union "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion." The policy agenda aimed at reaching this goal became known as the Lisbon Strategy of economic and structural reforms.

More specifically, the objective of the Lisbon Strategy was to improve Europe's productivity and competitiveness through various policy initiatives, building on a number of goals that had been formulated years before. These included the creation of an information society for all, establishing a European area of research and development, developing a business-friendly start-up environment, completing the single market, establishing efficient and integrated financial markets, building a knowledge society, ensuring more and better jobs for Europe, modernizing social protection, promoting social inclusion and enhancing sustainable development. Box 1 includes some estimates of the benefits of the Lisbon Strategy.

This review is the fourth edition of a biennial study carried out by the Global Competitiveness Network of the World Economic Forum, which is aimed at gauging Europe's progress towards these goals. The aim of this study is threefold. First, it compares the performance of individual EU members to provide a sense of which countries are presently making the most progress and which are lagging behind. It also takes stock of the change in relative performances of individual countries since the last *Lisbon Review* in 2006 to gauge the countries' relative progress.

Second, the study assesses the extent to which the 27 EU member countries are competitive vis-à-vis an international standard, using the United States and the average performance of five of the most competitive economies in East Asia – Hong Kong, Japan, Korea, Singapore and Taiwan, China – as international benchmarks. This provides a comparison with economies that are widely seen as among the world's most competitive, particularly with regard to market efficiency, entrepreneurship and technological progress, all critical elements of the Lisbon Strategy.

Third, the study assesses the economic competitiveness of the EU candidates and potential candidate countries, based on the Lisbon criteria, and provides a sense of the challenges currently facing them. In addition, we take an enlarged approach, going beyond the likely future accession countries to encompass the Commonwealth of Independent States (CIS), also including those from Central Asia. Our reason for doing so is that economic development in these countries is of critical importance for the stability of the EU's greater economic neighbourhood, both on domestic economic and trade-related grounds as well as for the security of the region going forward.

What differentiates this study from those that have been regularly carried out by the EU or other organizations, such as the Centre for European Policy Reform,[3] assessing the EU reform process is that it is based in large part on the World Economic Forum's Executive Opinion Survey (EOS). This survey is carried out among CEOs and top executives in each of the countries under analysis. This means that the results can be interpreted in large part as the business community's perspective on these countries' relative performances in meeting the Lisbon goals. Since business leaders make many of the investment decisions in their economies, their perceptions are clearly related to the prospects for economic development and competitiveness.

Box 1: The potential benefits of reaching the Lisbon goals

Over the years, a number of studies have estimated the benefits of reaching the Lisbon goals. For example, in its strategic report of 2008, the Commission estimated that the growth rate of GDP in the euro area had increased by 0.2 percentage points since 2005 to 2.2%, partly due to the effects of such structural reforms.[4]

Another recent study by the European Commission, *Quantitative Assessment of Structural Reforms: Modelling the Lisbon Strategy*, carried out a number of simulations based on the various Lisbon criteria. It found that already a number of reforms in the labour and product markets have reduced the structural unemployment rate by 1.4 percentage points and increased GDP in the EU15 by 2% since 1995. Similarly, it estimated that a one-year increase in the effective retirement age would boost GDP in the EU15 by 1.5% by 2025 and by 2.5% by 2050.

In the area of innovation, the study estimated that if member states achieved their national targets of boosting R&D expenditure to 2.7% of GDP by 2010, R&D activities would rise by 50% in 2025, generating through technological progress an increase of between 2.6 to 4.4% of GDP, based on what they consider to be conservative assumptions, and also lead to other spillovers.

Finally, the study estimated that a gradual reduction between 2006 and 2010 of administrative burdens for businesses could generate an additional 1.1% of GDP for the EU25 by 2010 by boosting labour efficiency as workers undertaking administrative tasks could be freed up to carry out more productive activities.[5]

Evolution of the Lisbon Strategy

In 2005, the EU carried out a detailed midterm review, the results of which were not reassuring. Not nearly enough progress had been made in most areas and Europe was still far from reaching its goals, in great part due to a lack of political action and commitment at the national level. In this context, the EU's leaders aimed to get the Lisbon process back on track. The overall sense was that the agenda had been overloaded, with poor coordination and conflicting priorities.[6] This led the Commission and the European Council to streamline the Lisbon Strategy in the spring of 2005 to focus specifically on those elements that increase growth and jobs, relaunching the process as the "Partnership for growth and jobs"[7] with the social and environmental aspects seen as longer term goals.[8] Further, member states would need to become more involved in the strategy to ensure ownership of the project at the level at which many of the reforms must take place, based on three-year cycles.[9] Related to this point, they also stressed the importance of communicating better with the EU's citizens to better galvanize popular support for the reform process. This process has become known as Lisbon II.[10]

The pursuit of the Lisbon goals has been complicated by a number of events. The first is related to the two recent waves of accession, which brought 12 new countries into the fold since 2004. While offering many economic benefits, the less advanced state of many of the recent members raised additional challenges in meeting the goals. Yet, closing the gap in economic development between a number of these new members and the older members of the EU provides an additional impetus to make the region more competitive. Second, the Lisbon goals were formulated during a time of economic exuberance, prior to the dot.com crash at the beginning of this decade. In this light, some of the goals as initially formulated were perhaps not entirely realistic within the initial time frame of one decade.

The most recent annual assessment conducted by the Commission at the end of 2007, based on the member states' autumn 2007 Implementation Reports, and its general monitoring of progress over the previous three-year period, concluded that some progress had been achieved.[11] However, much remained to be done since not all member states had undertaken reforms with equal determination and reforms aimed at opening up markets and tackling labour market segmentation particularly lagged behind.[12] As a result, according to the Commission's most recent competitiveness report, while Europe has narrowed the productivity gap with the US slightly over the past few years, US labour productivity remains 39% higher than that of the EU.[13]

In this light, the Commission has stressed that during the last two years of the Lisbon decade, the focus should be on keeping up the pace of change by implementing the commitments already made rather than asking governments to draw up a list of new targets. The Commission also set out a number of key priorities for EU-level reforms.[14] This programme was adopted by the heads of state and government at the 2008 Spring European Council.[15] More generally, the Commission has recently begun to take a tougher stance on member states that disregard its recommendations, as shown for example in its most recent assessment of national reform programmes.[16] The last few years of the Lisbon decade are therefore seen as a time of consolidation.

Given the significant potential benefits of the Lisbon Agenda, and in the context of the present economic downturn, the Lisbon reforms remain critical for ensuring that Europe's economies can ride out future economic shocks and continue to grow rapidly.

The Lisbon Agenda: Dimensions of Reform

Our analysis is based on the methodology used in the past three editions of this study, breaking the Lisbon Strategy into eight distinct dimensions that capture the areas highlighted by Europe's leaders as critical for reaching the goal of becoming the world's most competitive economy. The eight dimensions are:[17]

1. Creating an Information Society for All

This dimension measures the extent to which an economy has harnessed the new information and communication technologies (ICT) for sharing knowledge and enhancing the productivity of its industries. In particular, ICT has evolved into the "general purpose technology" of our time,[18] given the critical spillovers to other economic sectors and their role as efficient infrastructure for commercial transactions. Countries with companies that aggressively integrate these new technologies into their production processes tend to see better productivity improvements than others. Further, countries with governments that strongly prioritize the adoption of ICTs have often leapfrogged in this direction. In other words, to create a true information society, all stakeholders in the economy (individuals, businesses and governments) must use these tools.

Given the importance of creating an information society, the Lisbon European Council in 2000 stressed that "businesses and citizens must have access to an inexpensive, world-class communications infrastructure and a wide range of services," facilitated by a regulatory framework allowing electronic commerce and the Internet to flourish. Governments were expected to make "real efforts […] to exploit new technologies to make information as accessible as possible." In the index used in this review, this first dimension is captured by variables such as the prioritization of ICT by the government, ICT penetration rates (Internet, PCs), Internet usage by business and the extent to which students have Internet access in schools.[19]

2. Developing a European Area for Innovation, Research and Development

Innovation is critical, especially for those countries that have moved very close to the technology frontier, as is the case of most EU countries. As well as making maximum use of existing technologies as discussed in the first dimension above, these countries must have the necessary framework to ensure that they are at the forefront of innovation in products and processes. The Lisbon Strategy includes a variety of policy measures to enhance innovation. In particular, the Council highlighted the need to "improve the environment for private research investment, R&D partnerships and high technology start-ups." Better integration and coordination, and concerted efforts for research programmes among member states were also seen as critical. Further, it was stressed that efforts should be made to retain the EU's "best brains" and to attract high-quality researchers from abroad, as well as to facilitate the mobility of researchers within the EU.[20] In addition, the Council advocated a favourable regulatory environment including a comprehensive and inexpensive EU-wide patent system. This second Lisbon dimension is captured in the index using measures such as business investment in research and development (the EU has set a goal of 3% of GDP for R&D spending)[21], the quality of scientific research institutions, the extent of collaboration in research between universities and industry, patenting per capita, and the protection of intellectual property and innovation stimulation through government procurement.

3. Liberalization: Completing the Single Market/State Aid and Competition Policy

The "four freedoms" protect the free movement of goods, services, capital and labour within the internal market of the European Union. This dimension captures aspects related to the free flow of goods and services, which is critical for the competitiveness of European industry. Although much progress has been made in completing the single market for goods, the market remains fragmented, particularly with regard to services and protected industries. A reduction in the impediments to trade in services was proposed, which would have followed a "country of origin" principle.[22] However, concerns raised by some countries about its impact on Europe's social model led Europe's leaders to water down the Services Directive that was ultimately adopted in December 2006.[23] Substantial productivity increases are clearly not possible if the services sector, representing some 70% of the European economy, remains hampered by regulatory obstacles to market entry and trade. Ensuring a level playing field for local and foreign investors, and carrying out a proper competition policy are key elements of liberalization. In this regard, the Council particularly recognized the importance of reducing state aid to national industries (still flagrantly practiced in many EU countries, particularly large ones such as Italy and France) and of "shifting the emphasis from supporting individual companies or sectors towards tackling horizontal objectives of Community interest, such as employment, regional development, environment and training or research."

4. Building Network Industries: in Telecommunications, Utilities and Transportation

Among the Lisbon Strategy's measures for improving the functioning of markets are critical actions aimed at liberalizing and building network industries. These industries, like services discussed above, continue to be fragmented. The telecommunications and aviation markets have been liberalized. More recently, after a 15-year process to open up the postal services sector, the third Postal Directive was passed in February 2008, placing the deadline for member states to abolish existing legal monopolies on postal services at the end of 2010.[24] The successful implementation over the next two years will be crucial in increasing efficiency in the sector. And with regard to electricity, European consumers have in theory been able to freely choose their energy supplier following the entry into force of EU directives in 2004 and 2007, but many obstacles remain, with a single European energy market not yet a reality. Building up these industries at an EU level would promote greater efficiency and quality of service, and better support a competitive economic environment. The index separately assesses two dimensions of the EU's network industries: in telecommunications and in the area of utilities and transportation.

5. Creating Efficient and Integrated Financial Services

The current turmoil in financial markets around the globe has focused particular attention on this sector.[25] Despite recent concerns about the overly high risk-taking of some actors, the financial sector remains critical for the proper functioning of a dynamic economy. An efficient financial sector makes capital available for business investment from such sources as credit from a sound banking sector, well-regulated securities exchanges or venture capital. An integrated financial services market would reduce the cost of accessing capital and improve the allocation of capital across the EU, giving firms increased opportunities to access markets in other member states and carry out business effectively on a cross-border basis. The EU has a number of policy objectives and specific measures designed to improve the single market for financial services. Some progress has been made across Europe, most notably within the context of the Financial Services Action Plan, which set out specific objectives for developing a single market in financial services. However, the quality of financial services continues to vary significantly across EU countries. A recent report by the European Central Bank looking specifically at the euro area countries found "that there is a fair amount of heterogeneity in financial system performance across euro area countries … suggest[ing] that there appears to be further scope for structural reforms of financial sectors."[26]

6. Improving the Enterprise Environment: Business Start-ups/Regulatory Framework

Improving the prospects of growth and employment in the EU also requires improving the overall enterprise environment for budding businesses. Critical for achieving this goal is the overarching regulatory environment. For example, the Lisbon Strategy aims to stimulate entrepreneurship by reducing the administrative impediments to doing business in the EU and reducing distortionary or burdensome taxes. Another key objective is to facilitate business creation by improving the business start-up environment, in particular by making it cheaper and easier to start a business and ensuring access to capital for new businesses. The EU has taken an important step in this area by recently making it possible to start a business within a week in most EU countries, and facilitating the process through a one-stop shop. Yet, the enterprise environments vary greatly across member countries and much remains to be achieved in this area.

7. Increasing Social Inclusion: Bringing People to the Workforce, Upgrading Skills and Modernizing Social Protection

Creating jobs and bringing more people into the workforce is one of the main tenets of the refocused Lisbon II Strategy, with the EU's target of 70% employment (compared with an EU average of 65.4% in 2007, according to Eurostat). With a rapidly ageing European population, this is critical to ensure the ability to pay for growing pension expenditures. This will require high-quality formal education and on-the-job training to ensure that the population has the necessary skills to compete in the rapidly changing business environment. The recent focus on "flexicurity" is an important step in this direction, with the EU learning from the positive Danish experience of combining labour market flexibility with generous unemployment benefits and retraining. Facilitating the ability of women and older people to remain in or to re-enter the workplace by providing services such as sufficient and affordable childcare and training programmes is also vital. Finally, modernizing social protection and dealing directly with issues of social exclusion and poverty are critical to increasing social inclusion.

8. Enhancing Sustainable Development

Ensuring sustainable growth and development is a long-term Lisbon goal, which was added to the Lisbon Agenda at the Stockholm European Council in March 2001. This takes account of the extent to which countries ensure that improvements in the quality of life for the present generation proceed steadily and do not come at the expense of future generations. The goals were elaborated in the Council conclusions of June 2001, singling out four priority areas for attention: climate change, transport, public health and natural resources. The Council invited the business community "to take part in the development and wider use of new environmentally friendly technologies in sectors such as energy and transport." The effort was to be both at the country level and the centralized EU level. Member governments were asked to elaborate their own sustainable development plans, while at the global level, the EU would "seek to make sustainable development an objective in bilateral development cooperation and in all international organizations and specialized agencies."[27] In the index presented in this review we assess this dimension by taking into account the stringency and enforcement of environmental legislation, the ratification of international environmental treaties and the actual quality of the natural environment.

The multidimensionality of the Lisbon reform programme reflects the multiple forces driving economic development. This also can explain why, despite the present global financial crisis, we do not necessarily see large swings in competitiveness ratings, as financial services are only one of several important components of our index.

Data and Methodology

Country Coverage

At the core of the analysis are the 27 current member countries of the European Union, which are meant to be striving towards the Lisbon goals. These are Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom. Their performance according to the Lisbon criteria is compared among each other to assess which are the leaders in achieving the Lisbon goals, and which are the countries lagging behind.

As in past years, the United States is used as a key benchmark against which to place the performance of the EU countries in an international context, as it is considered one of the most competitive economies in the world by a variety of assessments.[28] In addition, the average performance of five very competitive East Asian economies – Japan, Hong Kong, Republic of Korea, Singapore and Taiwan – is also included. This second comparison provides a sense of how Europe measures up to this highly dynamic and competitive region, which has been able to greatly increase its productivity and prosperity over the years.

As explained above, the competitiveness of non-EU Eastern Europe and Central Asia has also been analysed to assess how their performance compares to each other, as well as to the EU average. For this group, we make comparisons with the EU 27 average as well as two of its components: the average of the 15 EU member countries prior to 2004, and that of the 12 recent accession countries. This analysis concerns 16 countries: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Kazakhstan, the Kyrgyz Republic, Macedonia, Moldova, Montenegro, Russia, Serbia, Tajikistan, Turkey and Ukraine.

As shown in Table 1, some of these countries are already official accession candidates for joining the European Union in the coming years, including Croatia, Macedonia and Turkey. Others are potential accession countries, such as Albania and Montenegro.[29] Still others have no plans to officially join the club, such as Russia and Kazakhstan. Yet, the analysis provides valuable insights regarding the competitiveness of the large majority of the countries critical for the prosperity and sustainable security of the greater region.

Table 1: Lisbon Review 2008 Coverage

European Union's membership and relationships with selected countries

Economy	EU code	Status/ Relationships with EU	Since
EU15			
Austria	AT	Member €	1995
Belgium	BE	Member €	1952
Denmark	DK	Member	1973
Finland	FI	Member €	1995
France	FR	Member €	1952
Germany	DE	Member €	1952
Greece	EL	Member €	1981
Ireland	IE	Member €	1973
Italy	IT	Member €	1952
Luxembourg	LU	Member €	1952
Netherlands	NL	Member €	1952
Portugal	PT	Member €	1986
Spain	ES	Member €	1986
Sweden	SE	Member	1995
United Kingdom	UK	Member	1973
EU Accession 12			
Bulgaria	BG	Member	2007
Cyprus	CY	Member €	2004
Czech Republic	CZ	Member	2004
Estonia	EE	Member	2004
Hungary	HU	Member	2004
Latvia	LV	Member	2004
Lithuania	LT	Member	2004
Malta	MT	Member €	2004
Poland	PL	Member	2004
Romania	RO	Member	2007
Slovak Republic	SK	Member	2004
Slovenia	SI	Member €	2004
Croatia		Candidate country	2004
Macedonia, FYR		Candidate country	2005
Turkey		Candidate country	1999
Albania		Potential candidate[1]	2006
Bosnia and Herzegovina		Potential candidate	2008
Montenegro		Potential candidate	2007
Serbia		Potential candidate	2008
Armenia		ENP[2]	2006
Azerbaijan		ENP	2006
Georgia		ENP	2006
Moldova		ENP	2005
Ukraine		ENP	2005
Kazakhstan			
Kyrgyz Republic			
Russian Federation			
Tajikistan			

€ Member of the Eurozone
[1] Signed a Stabilisation and Association Agreement (SAA)
[2] Adopted a European Neighbouring Policy (ENP) Action Plan

Source: European Commission

Calculating the Lisbon Scores

The assessment of Europe's competitiveness is based on publicly available hard data (such as Internet penetration rates, unemployment rates, etc.) and data from the World Economic Forum's Executive Opinion Survey (EOS). The EOS is a survey of business leaders, conducted annually in over 130 countries, and provides data for a variety of qualitative issues for which hard data sources are scarce or frequently nonexistent (e.g. the quality of the educational system, the government's prioritization of information and communications technologies, etc.). The EOS also allows us to capture the critical perspective of business leaders on the state of their operating environments on a variety of issues. Most of the hard data dates from the end of 2007, which is the most recent end-of-year data available. The EOS was carried out in the springs of 2007 and 2008.[30]

The overall Lisbon scores for each country are calculated as an unweighted average of the individual scores in the eight dimensions. We have maintained the same overall index model as in the 2006 *Lisbon Review*, which makes it possible to carry out inter-year comparisons. The scores and rankings of the countries covered by the review are extracted from a database covering a total of 134 countries. The precise structure of the index, including details on the specific hard and survey data used in making the calculations, is shown in Appendix B of this review.

Table 2: Rankings and Scores of EU Countries – 2008 and 2006

Lisbon Review Index

Economy	Rank 2008	Score	Rank 2006
Sweden	1	5.71	3
Denmark	2	5.64	1
Finland	3	5.64	2
Netherlands	4	5.44	4
Austria	5	5.34	7
Germany	6	5.34	5
Luxembourg	7	5.22	8
France	8	5.12	9
United Kingdom	9	5.12	6
Belgium	10	5.11	10
Ireland	11	5.03	11
Estonia	12	5.02	12
Cyprus	13	4.68	21
Portugal	14	4.61	13
Slovenia	15	4.58	16
Czech Republic	16	4.53	14
Spain	17	4.52	15
Malta	18	4.43	19
Lithuania	19	4.39	20
Slovak Republic	20	4.34	18
Latvia	21	4.25	22
Hungary	22	4.18	17
Greece	23	4.10	23
Italy	24	4.05	24
Romania	25	3.84	26
Poland	26	3.76	25
Bulgaria	27	3.68	27
EU27 average		4.73	
United States		5.44	
East Asia		5.26	

The Lisbon Review Rankings 2008

Performance of the EU27

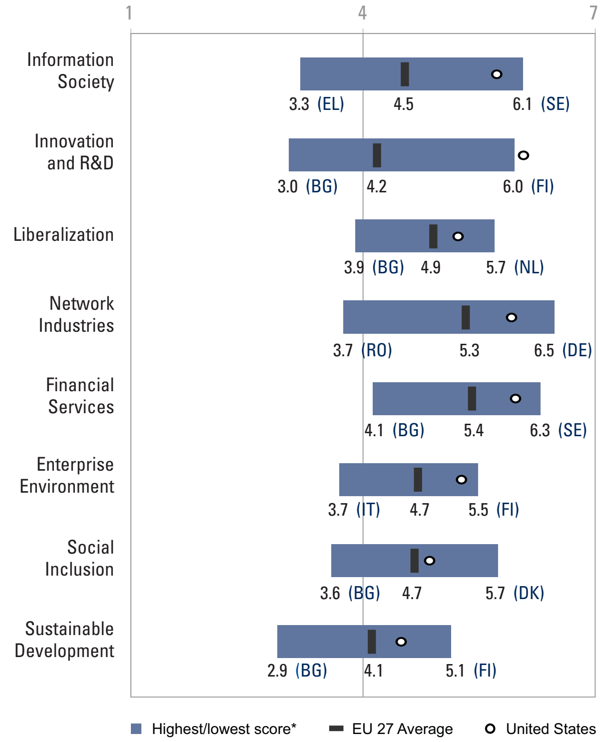
Table 2 shows this year's rankings and scores of the 27 EU member countries, as well as their 2006 rankings for comparison.[31] The scores are on a scale from one to seven, with larger values indicating stronger performance.

The table shows that the Nordic members continue to hold the top three spots, with Sweden overtaking Denmark and Finland, to be ranked first this year. The countries constituting the ranking's top 10 also remain the same, although there has been some movement within the ranks. Austria, Luxembourg and France have moved up slightly in the rankings, to 5th, 7th and 8th places respectively. On the other hand, Germany and the United Kingdom have declined in the rankings to 6th and 9th respectively. The drop of three places by the United Kingdom is particularly notable and mainly due to a worsening assessment of the state of the country's financial services, as discussed below.

Among the original EU15 members that are ranked outside the top 10, the only changes in rank since the 2006 assessment, are slight declines experienced by Portugal and Spain, to 14th and 17th places, respectively, echoing the present economic downturn in the Iberian Peninsula, particularly in Spain. Nevertheless, and despite the current crisis, Ireland, Spain and Portugal continue to do comparatively well, placing in the top half of European countries, while Greece and Italy continue to round out the bottom of the rankings, grouped together with the least competitive accession countries.

The accession countries register more notable changes in performance. Most striking is Cyprus (13th), which moves up by eight places, due to improvements registered across all areas, especially efforts to develop an information society, improve social inclusion and sustainable development. Five other accession countries improve by one rank, namely Slovenia (15th), Malta (18th), Lithuania (19th), Latvia (21st) and Romania (25th), demonstrating that they are moving in the right direction in some areas, albeit some from a rather low base. On the other hand, the largest decline in rank out of all 27 countries is registered by Hungary, falling five places to 22nd place, linked in particular to poorer assessments of the country's financial services and efforts towards increased social inclusion. In addition, both the Czech Republic (16th) and the Slovak Republic (20th) decline by two ranks, while the largest of the accession countries, Poland, falls one more rank, displaced by Romania, and is now second to last at 26th place, only ahead of Bulgaria. At the other end of the spectrum is Estonia, which continues to be the highest-placed accession country, just outside the top 10 and right behind Ireland at 12th. The varied performance of the accession countries shows that their reform efforts are meeting with mixed success.

Figure 1: Score Dispersion among EU Countries



* See Table 1 for country code keys

Such disparity is revealed in Figure 1 which shows the score dispersion between the best and worst performing EU member countries on each of the eight dimensions that comprise the index. The black dash represents the EU average and the white dot represents the US score. The score gap between the two extremes is the most significant – at three full points – in the dimensions of the "Information Society" and "Innovation and R&D", while it is the smallest – but still sizeable – in "Liberalization" and "Enterprise Environment". That the divide is most important in the area of innovation is perhaps not surprising. This is because the capacity to innovate becomes a critical enabler of productivity enhancements for countries especially once they reach the high-tech frontier, as it does not run into diminishing returns.

Table 3 presents the details driving the overall ranks and scores of the 27 EU member countries in each of the eight Lisbon dimensions. The table shows that the top positions of the three Nordic countries continue to be attributable to strong performance across all dimensions, particularly in measures of innovation, financial services, social inclusion and sustainable development.

Table 3: Ranking and Scores of EU Countries

	Final Index		Subindexes: Information Society		Innovation and R&D		Liberalization		Network Industries		Financial Services		Enterprise Environment		Social Inclusion		Sustainable Development	
Economy	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Sweden	1	5.71	1	6.07	2	5.60	3	5.64	4	6.18	1	6.30	7	5.23	3	5.51	2	5.12
Denmark	2	5.64	3	5.71	3	5.30	4	5.61	2	6.26	2	6.17	6	5.28	1	5.74	4	5.03
Finland	3	5.64	7	5.27	1	5.95	6	5.51	6	5.99	4	6.08	1	5.48	2	5.67	1	5.13
Netherlands	4	5.44	2	5.76	5	4.86	1	5.70	7	5.91	3	6.11	5	5.28	4	5.33	7	4.56
Austria	5	5.34	6	5.30	8	4.69	2	5.66	5	6.05	5	6.05	11	4.94	6	5.15	6	4.91
Germany	6	5.34	9	4.96	4	5.08	5	5.60	1	6.47	9	5.91	15	4.70	9	5.02	5	4.96
Luxembourg	7	5.22	8	5.12	13	3.93	9	5.26	8	5.85	7	5.96	3	5.40	7	5.12	3	5.10
France	8	5.12	10	4.96	9	4.68	10	5.25	3	6.20	10	5.91	13	4.82	14	4.81	11	4.33
United Kingdom	9	5.12	5	5.42	7	4.70	11	5.16	9	5.81	11	5.82	8	5.06	15	4.69	12	4.28
Belgium	10	5.11	13	4.51	6	4.73	8	5.34	10	5.76	8	5.93	9	5.02	5	5.25	10	4.36
Ireland	11	5.03	14	4.44	10	4.44	7	5.38	16	5.13	6	6.01	2	5.46	10	5.01	9	4.40
Estonia	12	5.02	4	5.56	12	4.06	12	4.99	14	5.26	12	5.69	4	5.34	13	4.83	8	4.44
Cyprus	13	4.68	15	4.33	21	3.54	13	4.94	11	5.76	15	5.43	17	4.54	8	5.05	17	3.85
Portugal	14	4.61	16	4.32	16	3.87	18	4.70	12	5.58	16	5.42	16	4.62	18	4.34	15	4.01
Slovenia	15	4.58	12	4.71	11	4.12	19	4.43	18	5.11	21	4.90	20	4.47	16	4.61	13	4.28
Czech Republic	16	4.53	18	4.03	15	3.93	15	4.82	19	5.10	19	4.94	21	4.40	12	4.87	14	4.17
Spain	17	4.52	17	4.07	14	3.93	14	4.87	13	5.42	14	5.52	23	4.16	19	4.32	18	3.83
Malta	18	4.43	11	4.75	25	3.37	16	4.80	15	5.16	13	5.68	24	3.84	11	4.87	26	2.96
Lithuania	19	4.39	19	3.95	18	3.82	20	4.40	20	5.04	18	5.01	14	4.76	17	4.35	20	3.80
Slovak Republic	20	4.34	20	3.94	24	3.48	17	4.77	24	4.54	20	4.92	10	4.96	20	4.20	16	3.91
Latvia	21	4.25	21	3.93	23	3.48	22	4.38	23	4.55	22	4.87	12	4.87	21	4.07	19	3.83
Hungary	22	4.18	22	3.86	19	3.76	21	4.40	22	4.75	23	4.77	19	4.51	24	3.87	22	3.50
Greece	23	4.10	27	3.18	17	3.85	23	4.31	17	5.12	17	5.07	26	3.78	22	4.06	23	3.46
Italy	24	4.05	23	3.83	20	3.76	24	4.27	21	4.90	24	4.63	27	3.69	25	3.82	21	3.51
Romania	25	3.84	24	3.70	26	3.30	26	4.04	27	3.74	26	4.35	18	4.52	23	3.92	25	3.19
Poland	26	3.76	26	3.18	22	3.51	25	4.24	26	3.93	25	4.45	25	3.80	26	3.79	24	3.21
Bulgaria	27	3.68	25	3.57	27	3.04	27	3.90	25	4.08	27	4.12	22	4.21	27	3.59	27	2.89
EU27	-	**4.73**	-	**4.53**	-	**4.18**	-	**4.90**	-	**5.32**	-	**5.41**	-	**4.71**	-	**4.66**	-	**4.11**
United States	-	**5.44**	-	**5.73**	-	**6.07**	-	**5.23**	-	**5.92**	-	**5.97**		**5.27**	-	**4.86**	-	**4.50**
East Asia	-	**5.26**	-	**5.36**	-	**5.20**	-	**5.28**	-	**5.98**	-	**5.65**		**5.26**	-	**5.09**	-	**4.26**

* East Asia refers to the average of five competitive East Asian economies: Japan, Hong Kong, Republic of Korea, Taiwan and Singapore

In terms of innovation, the Nordic countries are the strongest European performers in areas such as their companies' aggressiveness in adopting new technologies and their level of spending on R&D, the high degree of collaboration between universities and the private sector in research, and their strong intellectual property protection. And, indeed, in terms of innovation "output", they register among the highest rates of patenting per capita internationally. With regard to financial services, they boast sophisticated financial markets and strong auditing and accounting standards, with relatively easy access to capital for good business projects, and a high level of confidence in the soundness of the banking sector at a time when this is declining in many advanced economies.

The Nordics have also achieved a high level of social inclusion, with the top three rankings in this area out of all 27 countries. This is attributable to relatively low unemployment (especially in Denmark, pioneer of the "flexicurity" system), and the strong participation of women in the workforce (especially in Finland and Sweden). These countries also ensure a high level of skills and skills upgrading through top-notch educational systems and strong on-the-job training programmes. In addition, their efforts to reduce income inequality and poverty are seen as among the most effective in the world. Finally, the importance placed on environmental protection by the three Nordics is reflected in their good showings in the sustainable development dimension. They have all put into place very stringent environmental legislation, which is well enforced. And indeed, the quality of the natural environment is very good in these countries.

Among the other countries in the top 10, performance is more mixed, with some notable strengths in specific areas. Table 4 provides an overview of the top three performers in each pillar, which highlights the areas where individual countries do particularly well. For example, the Netherlands is ranked first for the extent of liberalization in the country, second for its achievements in fostering an information society and third for the quality of financial services in the country. Germany and France rank first and third, respectively, for their network industries, particularly due to their excellent infrastructure, although the enterprise environment is a comparative weakness for both countries, ranked 15th and 13th, respectively in this area. Austria is ranked 2nd for liberalization, while Ireland and Luxembourg are ranked 2nd and 3rd, respectively, for their enterprise environments.

A striking deterioration since the last assessment relates to the clear decline in the United Kingdom's financial services score, ranked first in the last Lisbon Review, and now way down at 11th place. This can be traced to a weakening across the board, most notably in the access to capital and concerns about the soundness of the banking sector, likely linked to turmoil in the financial sector, which has hit the United Kingdom particularly hard given the economy's strong dependence on the financial services sector. On the other hand, the movement towards an information society and innovation and R&D remain the United Kingdom's greatest strengths, ranked 5th and 7th, respectively. Ireland, ranked just outside the top 10, has one of the top two enterprise environments as mentioned above, based on the ease of starting a business in the country, access to capital and a tax system that does not hinder enterprise development.

Turning to the 12 accession countries, there are also some clear areas of strength in individual countries. For example, Estonia ranks among the top four countries for its information society, the result of the government's strong prioritization of ensuring universal Internet access for the population, with high ICT penetration rates, extremely high Internet access in schools, as well as the best provision of e-government services internationally. Estonia also has one of the top four enterprise environments, based on the ease of starting and developing a business in the country. Cyprus, a bit lower in the ranking at 13th, is ranked a higher 8th for social inclusion, with a good educational system and low unemployment rate, buttressed by successful efforts by the government to reduce poverty and address income inequality.

Table 4: Top Three EU Performers in the Lisbon Dimensions

			Lisbon Review Dimensions							
Country	Final Index	Number of times ranked in top three	1. Information Society	2. Innovation and R&D	3. Liberalization	4. Network Industries	5. Financial Services	6. Enterprise Environment	7. Social Inclusion	8. Sustainable Development
Sweden	1	6	**1**	**2**	**3**	4	**1**	7	**3**	**2**
Denmark	2	5	**3**	**3**	4	**2**	**2**	6	**1**	4
Finland	3	4	7	**1**	6	6	4	**1**	**2**	**1**
Netherlands	4	3	**2**	5	**1**	7	**3**	5	4	7
Austria	5	1	6	8	**2**	5	5	11	6	6
Germany	6	1	9	4	5	**1**	9	15	9	5
Luxembourg	7	2	8	13	9	8	7	**3**	7	**3**
France	8	1	10	9	10	**3**	10	13	14	11
Ireland	11	1	14	10	7	16	6	**2**	10	9

Table 3 shows that the countries at the bottom of the ranking tend to do poorly across all areas. Among EU15 countries, Greece and Italy remain the laggards. While Greece receives middling scores in the areas of innovation and R&D, network industries and financial services (each ranked 17th), all other areas are clear weaknesses, most notably the state of its information society (ranked last at 27th), and the enterprise environment (ranked 26th). Italy, for its part, does not have one ranking above 20 in the various dimensions, with the greatest comparative weaknesses in liberalization (24th), financial services (24th), and the enterprise environment (27th). The three lowest ranked countries, Romania, Poland and Bulgaria, show poor performance across all areas, with Bulgaria in particular ranked last in five dimensions: innovation and R&D, liberalization, financial services, social inclusion and sustainable development.

Comparing the EU to the US and East Asia

At the bottom of Table 3 are the scores and rankings for the United States and the average of five competitive East Asian economies, which are included for comparison. As the table shows, the EU performance, with an average score of 4.73 out of 7, lags well behind that of the US and East Asia with scores of 5.44 and 5.26, respectively.

However, the detailed performance of individual countries across specific dimensions provides a more nuanced picture, given the great diversity in competitiveness levels within the enlarged EU. Figures 1-27, shown in Appendix A of this review, provide a visual representation of the scores in Table 3 and compare individual country performances and the average performance of the EU vis-à-vis the US and East Asia benchmarks. A country with a perfect performance in any of the eight dimensions would have a score of seven. Since an ideal country would therefore have a diamond touching the outer edges of the figure, the smaller the diamond, the less competitive the country is, as measured by the Lisbon criteria. In each figure, the individual country's performance is represented by a blue line, that of the US is in grey and that of East Asia is in black. Dimensions in which the individual country's line extends further out than that of the US or East Asia indicate areas where the country outperforms these benchmarks.

Table 3 and the appendix figures show that the three Nordic countries outperform the US overall, with the Netherlands score of 5.44 on a par with that of the US. The Nordics have particularly strong comparative assessments in the areas of network industries, financial services, social inclusion and sustainable development. On the other hand, the US, the world's innovation powerhouse, retains its clear lead in this area, scoring well ahead of all EU countries, as also clearly shown in Figure 1. In addition to the Nordics and the Netherlands, East Asia on average is also outperformed by Austria and Germany, but remains ahead of all other EU member countries.

As Table 5 shows, the EU27 on average is outperformed in all of the eight dimensions measured in the index by the US and East Asia, including areas normally seen as European strengths such as social inclusion and sustainable development. The one sub-area where the EU27 average outperforms the US, and by a wide margin, is in modernizing social protection. On the other hand, the greatest shortfalls are in the areas of establishing an information society, innovation and R&D, network industries and the enterprise environment – all critical areas for becoming a "dynamic knowledge-based economy".

Table 5: Lisbon Scores: Comparing the EU with the United States and East Asia

	EU15 average	EU27 average	United States	East Asia	EU15 average relative to the US	EU15 average relative to East Asia	EU27 average relative to the US	EU27 average relative to East Asia
1. Information Society	**4.86**	**4.53**	**5.73**	**5.36**	**-0.87**	**-0.50**	**-1.20**	**-0.82**
2. Innovation and R&D	**4.62**	**4.18**	**6.07**	**5.20**	**-1.45**	**-0.58**	**-1.89**	**-1.02**
3. Liberalization	**5.22**	**4.90**	**5.23**	**5.28**	**-0.01**	**-0.06**	**-0.33**	**-0.38**
4. Network Industries	**5.77**	**5.32**	**5.92**	**5.98**	**-0.14**	**-0.21**	**-0.60**	**-0.66**
Telecommunications	5.87	5.54	5.70	5.81	0.17	0.06	-0.16	-0.27
Utilities and transport	5.68	5.10	6.14	6.15	-0.46	-0.47	-1.04	-1.05
5. Financial Services	**-5.79**	**5.41**	**5.97**	**5.65**	**-0.18**	**0.14**	**-0.56**	**-0.24**
6. Enterprise Environment	**4.86**	**4.71**	**5.27**	**5.26**	**-0.41**	**-0.40**	**-0.57**	**-0.55**
Business start-up environment	5.11	4.95	5.65	5.17	-0.54	-0.05	-0.71	-0.22
Regulatory environment	4.61	4.47	4.90	5.36	-0.28	-0.75	-0.42	-0.89
7. Social Inclusion	**4.92**	**4.66**	**4.86**	**5.09**	**0.06**	**-0.17**	**-0.20**	**-0.43**
8. Sustainable Development	**4.47**	**4.11**	**4.50**	**4.26**	**-0.03**	**0.20**	**-0.38**	**-0.15**
Returning people to the workforce	5.20	5.27	5.79	5.56	-0.59	-0.36	-0.52	-0.29
Upgrading skills	4.79	4.53	5.20	5.14	-0.40	-0.35	-0.67	-0.61
Modernizing social protection	4.77	4.19	3.60	4.58	1.18	0.20	0.60	-0.39
Final Index Score	**5.07**	**4.73**	**5.44**	**5.26**	**-0.38**	**-0.20**	**-0.72**	**-0.53**

Looking at the15 EU member countries prior to 2004, the picture is somewhat more positive. Telecommunications get better marks than in both the US and East Asia, and the EU15 slightly outperform the US in social inclusion, and East Asia in sustainable development and financial services. Further, the EU15 demonstrate an even more impressive comparative performance in the sub-dimension of modernizing social protection. However, as a whole, the EU15 countries on average continue to lag in most areas behind the US and East Asia. And notably, the assessment for innovation and R&D continues to lag well behind the comparators.

Lisbon Looking Farther East

The previous section analysed how well the existing 27 EU members are meeting the Lisbon goals and highlighted the challenges that remain to be addressed in a variety of areas. This section applies the Lisbon criteria to 16 other countries from Eastern Europe and Central Asia. As mentioned above, and as shown in Table 1, they range from official candidate status to potential candidates, and also include countries with no intention of joining the EU. This provides a sense of the competitiveness of the greater European region.

Table 6 shows the ranks and scores of these countries, and for comparison also includes the average scores for the EU27, the original EU15 members prior to 2002 and the 12 countries that have joined the EU since 2004 (the "Accession 12"). As in the case of the EU27, there is considerable variation in performance among these countries overall and across the various dimensions.

Overall we see that four neighbouring Balkan countries constitute both the most and least competitive countries out of the group, sandwiching the others between them. Croatia and Montenegro rank highest out of all 16 countries shown, while Albania and Bosnia and Herzegovina round out the bottom of the list. Countries from the other groupings are dispersed throughout the ranking.

The averages at the bottom of the table show that all countries score lower than the regional comparators on the overall index, including the accession 12 average. However, we also note that the top five countries in the table, Croatia, Montenegro, Azerbaijan, Turkey and Russia, actually do better on average than the two lowest ranked EU members, Poland and Bulgaria, with Croatia also outperforming Italy and Romania.

Turkey

Turkey ranks 4th among the 16 countries, behind the two most competitive Balkans, Croatia and Montenegro, as well as Azerbaijan, but ahead of most other countries. As mentioned above, Turkey's overall score of 3.82 is notably higher than those of Poland and Bulgaria and very close to that of Romania. Turkey's main area of strength is the enterprise environment, where its score is not far behind the EU27 average and indeed nearly on a par with the accession country average. This is related to the ease with which new companies can be started in Turkey, notably requiring only six days on average compared with an EU average of 17 days, although access to start-up capital remains comparatively difficult in the country at present.

Another related area of strength is liberalization, where Turkey not only ranks first out of the 16 countries shown in the table, but also on a par with the accession 12 average of 4.51. This relates to the rather effective antitrust policy in the country which ensures a high level of competition and comparatively high-quality players in the market, among others.

Table 6: Rankings and Scores of Non-EU European and Central Asian Economies

	Final Index		Subindexes															
			Information Society		Innovation and R&D		Liberalization		Network Industries		Financial Services		Enterprise Environment		Social Inclusion		Sustainable Development	
Economy	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Croatia	1	4.10	1	3.69	3	3.41	4	4.05	1	4.98	2	4.70	11	4.19	7	4.03	2	3.78
Montenegro	2	3.96	4	3.27	7	3.15	2	4.22	5	3.93	1	4.88	12	4.07	5	4.11	1	4.08
Azerbaijan	3	3.88	2	3.45	6	3.24	3	4.16	6	3.89	5	4.05	2	4.60	2	4.38	3	3.30
Turkey	4	3.82	3	3.34	5	3.25	1	4.51	4	4.18	3	4.57	3	4.51	14	3.30	9	2.89
Russian Federation	5	3.82	9	3.16	2	3.62	10	3.71	2	4.45	10	3.88	10	4.22	1	4.41	6	3.08
Kazakhstan	6	3.70	6	3.19	4	3.33	7	3.89	9	3.68	8	3.97	4	4.44	3	4.18	8	2.96
Ukraine	7	3.69	7	3.18	1	3.66	11	3.66	3	4.20	12	3.78	9	4.23	4	4.17	14	2.64
Georgia	8	3.66	11	2.88	9	2.90	5	3.96	10	3.56	6	4.00	1	4.96	9	3.80	5	3.22
Macedonia, FYR	9	3.53	8	3.17	12	2.78	6	3.91	8	3.82	4	4.05	6	4.42	15	3.29	11	2.84
Moldova	10	3.50	10	3.00	10	2.82	12	3.62	11	3.49	9	3.92	8	4.34	8	3.89	10	2.89
Serbia	11	3.44	5	3.20	8	3.00	13	3.62	7	3.82	11	3.80	14	3.89	12	3.53	13	2.65
Tajikistan	12	3.35	13	2.75	13	2.73	8	3.72	16	2.80	14	3.54	15	3.89	6	4.07	4	3.25
Armenia	13	3.29	16	2.48	11	2.79	9	3.71	13	3.19	7	3.99	13	3.94	10	3.74	15	2.46
Kyrgyz Republic	14	3.23	15	2.63	14	2.72	16	3.41	15	2.83	15	3.38	5	4.43	13	3.48	7	2.98
Albania	15	3.12	14	2.70	16	2.37	15	3.42	14	2.93	16	3.28	7	4.38	11	3.65	16	2.24
Bosnia and Herzegovina	16	3.12	12	2.83	15	2.43	14	3.47	12	3.45	13	3.63	16	3.46	16	2.92	12	2.74
EU27	-	**4.73**	-	**4.53**	-	**4.18**	-	**4.90**	-	**5.32**	-	**5.41**	-	**4.71**	-	**4.66**	-	**4.11**
EU15	-	**5.07**	-	**4.86**	-	**4.62**	-	**5.22**	-	**5.77**	-	**5.79**	-	**4.86**	-	**4.92**	-	**4.47**
Accession 12	-	**4.31**	-	**4.13**	-	**3.62**	-	**4.51**	-	**4.75**	-	**4.93**	-	**4.52**	-	**4.34**	-	**3.67**

Yet, there are a number of dimensions that Turkey must strengthen to bring its overall competitiveness up to EU levels. For example, efforts should be made to improve its information society, encouraging greater uptake of ICTs among business, society and government, in view of enhancing productivity. More focus should also be placed on sustainable development through more stringent and well-enforced environmental legislation. Yet Turkey's greatest area of comparative weakness relates to the lack of social inclusion, where it ranks 14th out of all 16 countries (followed only by Macedonia and Bosnia and Herzegovina). Turkey has a relatively high unemployment rate and the participation rate of women in the economy is among the world's lowest. In this context, improving the formal educational system as well as professional training would better prepare the workforce to adapt to the rapidly changing global economy.

The Balkans

As mentioned above, the non-EU Balkan countries are spread throughout the ranking of the 16 comparators, occupying the first two positions as well as the last two. Croatia and Montenegro lead the group, based on a number of strengths. They are ranked as the top two countries for their financial services, with Montenegro in particular close to the accession country average. In addition their efforts towards ensuring sustainable development also place them as the top two countries and well ahead of the accession 12 average, with Montenegro just behind the overall EU27 average. This is perhaps linked to the critical importance of tourism for their economies. Croatia is also ranked first for its network industries, where it outperforms the accession country average, related to the good quality of infrastructure in the country. Croatia is also ranked first for the development of its information society, although it still remains well behind the accession and overall EU averages in this area.

Macedonia (9th), and Serbia (11th) constitute the second group of countries, which are clustered in the middle of the rankings of the 16 countries. They have some comparative strengths, such as Macedonia's comparatively high ranking for financial services (4th). Yet, their performance still trails behind the EU average by a large margin in all areas, showing that much effort will be required to get them closer to EU competitiveness levels. Of particular concern are the poor quality of infrastructure, the low level of innovation and the lack of focus on sustainable development.

Finally, as mentioned above, the last two ranked countries shown in the table are Albania (15th) and Bosnia and Herzegovina (16th). These countries trail all comparators as well as the EU members by a wide margin, with Albania ranked last in three areas (innovation, financial services and sustainable development) and Bosnia and Herzegovina ranked last of all countries in two areas (enterprise environment and the lack of social inclusion). Efforts will be required across all fronts to improve the competitiveness of these two countries and prepare them for eventual membership in the EU.

The Commonwealth of Independent States[32]

Table 6 also includes the CIS members, thus providing a complete picture of the situation in what can be seen as the greater European region. As the table shows, Azerbaijan is the top ranked country from the region, just behind Croatia and Montenegro, and ahead of Romania, Poland and Bulgaria. A clear strength is in social inclusion, with a low unemployment rate and a high female participation rate in the labour force, although the quality and quantity of education require improvements. Also notable is the enterprise environment (2nd), with many improvements made in recent years to streamline the business start-up environment in particular.[33] The country is also ranked 2nd, and just behind Croatia, for the development of the information society, with high government prioritization in this area, although ICT penetration rates still remain somewhat low by international standards. On the other hand, the greatest weaknesses are in the low levels of innovation and R&D (ranked 6th) and poor network industries (also 6th).

Russia is the second highest ranked country among CIS members, just behind Turkey and with a score of 3.82, which is higher than that of Poland and Bulgaria and very close to that of Romania. Russia is ranked first out of all countries for social inclusion, and ahead of the accession 12 average, with a high female participation rate in the labour force and its good educational system, although professional training programmes could be improved. Russia is ranked 2nd out of the 16 countries for innovation, as well as for its network industries, although in both cases its performance remains well behind both the EU27 and accession averages. Compared with the other countries, the main areas of concern in Russia are the poorly developed information society (with low government prioritization of ICT), the lack of liberalization in the economy, a poor enterprise environment, as well as questions about the quality of its financial services.

There is a second group of countries that cluster farther down but still in the top half of this ranking, namely Kazakhstan, Ukraine and Georgia,[34] ranked 6th, 7th and 8th, respectively. Kazakhstan does comparatively well for its enterprise environment, where it is ranked 4th and on a par with the accession 12 average, and for its level of social inclusion. Ukraine leads all of the countries in the area of innovation and R&D, where it also outperforms the accession 12 average. And Georgia is the leader in the enterprise environment, ranked first and remarkably even outperforming the EU15 average. On the other hand, there are many areas for improvement, notably in better promoting the development of information societies, among others.

Finally, there is a group of four CIS members placing at the bottom of the 16-country ranking, together with the lower ranking Balkan countries: Moldova (10th), Tajikistan (12th), Armenia (13th) and the Kyrgyz Republic (14th). While there are some areas where they receive middling scores, for the most part these countries display competitive weaknesses across most areas, particularly the lack of development of an information society and poor network industries.

Conclusions

This review has assessed the competitiveness of the 27 European Union countries according to the eight dimensions of the Lisbon goals. The results show that there are great disparities in performance across the countries, with some making significantly more progress than others in improving their competitiveness. The Nordic countries continue to lead the way, with some southern European and recent accession countries rounding out the bottom of the ranking. As a whole, and compared with the very dynamic and competitive economies of the US and East Asia, the greatest shortfalls are in the areas of establishing an information society, innovation and R&D, and the enterprise environment.

In addition, this review applied the same Lisbon criteria to the non-EU countries from what can be seen as the greater European region, encompassing the Balkans as well as the CIS members. The analysis showed that the top-performing non-EU members, such as Croatia and Turkey, are already performing better overall than the worst performing members. In addition, individual countries perform on a par or better than some present EU members in specific areas. However, the overall picture shows that, in line with their generally less developed stages of economic development, efforts need to be made in most areas to bring these countries up to EU levels. This is particularly important for those countries in line to join the EU in the coming years.

Steps towards reform in a number of areas have indeed been made in the EU over the past few years. However, much remains to be achieved, and pushing ahead with the reform process might now prove more difficult: history has shown that it tends to be easier to pursue structural reform in good economic times than in difficult ones. Yet, the present economic malaise demonstrates more than ever the urgency of improving Europe's competitiveness. Indeed, less than a year ago, Europe expected to be spared the worst of the economic crisis and is now facing a severe downturn. In this context, more aggressively pursuing the Lisbon goals, and pursuing them as a longer term project, would better prepare Europe's economies to weather such storms in the future.

While it is quite clear at this point that the EU will not fully achieve the lofty goals first articulated in 2000, the Commission and the European Council are well aware of the value of continuing the reform process beyond the original deadline of 2010. Indeed, the conclusions of the Presidency of the spring 2008 European Council indicated that it would be important to continue with the reforms beyond 2010 to "lock in the progress achieved by the renewed Lisbon Strategy for growth and jobs."[35] One must hope that key stakeholders in the EU member countries, on which so much of the reform process depends, will vigorously follow this line of reasoning.

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Notes

1 The authors would like to thank Eva Trujillo-Herrera for her excellent research assistance.

2 In its Autumn 2007 Economic Forecast, the European Commission was still predicting robust growth of 2.4% for the EU in 2008. In its September 2008 interim forecast it revised this figure to 1.4%. As for 2009, the Commission initially forecast 2.4% growth in autumn 2007 and lowered its projection to 1.8% in the spring of 2008. These publications are available online at: http://ec.europa.eu/economy_finance/publications/

3 See Barysch et al., 2008 for the most recent such assessment.

4 European Commission, 2008, p. 8.

5 Arapaia et al., 2007.

6 Much of the analysis was based on the Kok Report of 2004. See European Communities, 2004.

7 The heads of state and government at the Lisbon summit set a 3% average economic growth target and the creation of 20 million jobs by 2010, identifying the main steps necessary to achieve this. Policy reforms at the European and national levels were elaborated in areas such as enterprise, research and development, the opening of markets and environmental sustainability. The streamlined version produced one set of policy guidelines from those existing previously, and set two main EU targets: an R&D investment rate of 3% and an employment rate of 70%. In addition, there are employment targets of 60% for women and 50% for older workers.

8 This is not to say that they dropped the environmental and social aspects, but rather that they recognized that these goals would be achieved more readily once the growth and jobs issues had been tackled. In fact, they have been clear to point out that the Lisbon Strategy still aims for sustainable jobs and growth without sacrificing environmental protection. The Growth and Jobs Strategy, which is a medium-term strategy, is meant to be complemented by the EU's Sustainable Development Strategy, which is wider and more long term.

9 The integrated guidelines also include a series of macroeconomic measures to be achieved for growth and jobs, in line with the Maastricht criteria. Although the importance of fiscal responsibility and good macroeconomic management is clearly a continuing priority for EU member countries, this study continues to focus on the original microeconomic measures of the Lisbon Agenda to allow for a more focused analysis and to ensure continuity with our previous work.

10 To move the process along, the Commission proposed for the first time country-specific recommendations in its December 2006 Progress Report, which were endorsed by the Spring European Council in March 2007. This has been an important development, as it has required member states to agree on what each of them needs to do in the Lisbon process.

11 For example, it is now possible in all but a few member states to start up a business within one week through a one-stop shop; agreement has been reached on a set of "flexicurity" principles; and there has been a significant reduction in administrative burdens.

12 The first part of the report to the 2008 Spring European Council set out the Commission's proposal for taking the Lisbon Strategy forward during the following three years, while the second part consisted of an assessment of progress made by each EU member state in implementing its National Reform Programme (NRP) and country-specific recommendations as recommended by the Council. The third part contained a detailed assessment of progress by policy area. The report also outlined the new Community Lisbon Programme (CLP), the Community's contribution to the renewed Lisbon Strategy, as a counterpart to the NRPs, which are expected to produce the greatest impact on growth and jobs.

13 European Commission, 2007a, p. 3.

14 These include: increasing high-speed Internet access to achieve a 30% connection rate of the EU population and connection of all schools by 2010; setting national targets and policies to raise the basic skills of young people and reduce early school-leaving; adopting a comprehensive European Small Business Act; improving framework conditions for innovation through an integrated patent jurisdiction and a single affordable patent; completing the internal market for energy; setting mandatory energy reduction targets for government buildings; systematically including energy efficiency as one of the award criteria for public procurement; the rapid adoption by the European Parliament and the Council of the Commission's "blue card" proposal for a skills-based immigration policy; further steps to integrate EU financial services markets and enhance their stability in light of the current turbulence; and promoting a sustainable industrial policy.

15 Council of the European Union, 2008.

16 European Commission, 2007b.

17 This is a slightly more granular categorization than the five dimensions included in the annually released Lisbon Scorecard by the CEPR (Innovation, Liberalization, Enterprise, Employment and Social Inclusion, Sustainable Development and the Environment). Please refer to Appendix B for the detailed structure of the Lisbon Review Index.

18 A general purpose technology (GPT), according to Trajtenberg (2005), is one which in any given period makes a particular contribution to the overall economy's growth thanks to its ability to transform the methods of production in a wide array of industries. Examples of GPTs have been the invention of the steam engine and the electric dynamo.

19 For a detailed analysis of the factors driving national networked readiness, see the World Economic Forum's Global Information Technology Report 2007-2008.

20 Continuing concerns about such restrictions led the Commission to recently emphasize the importance of creating a "fifth freedom" of knowledge, by removing barriers to the cross-border mobility of researchers, students, scientists and academic staff, and a focus on developing skills

21 The most recent country-specific targets would raise R&D spending to 2.7% of GDP, although evidence suggests that they are still far from reaching this goal.

22 European Commission, 2004.

23 European Communities, 2006.

24 The member states that joined the EU since 2004, as well as Greece and Luxembourg have until the end of 2012 to adhere to the Directive.

25 It is important to note that the effects of the global financial crisis may not be fully reflected in the results discussed in this review, as they are based for the most part on data from the past year.

26 European Central Bank, 2008.

27 Council of the European Union, 2001b.

28 For example, internationally, the United States ranks first in both the World Economic Forum's 2008-2009 Global Competitiveness Index and in IMD's World Competitiveness Yearbook 2008. It ranks third in the World Bank's 2009 Doing Business Index.

29 The EU has established the Stabilisation and Association process with all western Balkan countries, which aims to bring them progressively closer to the EU. This provides these countries with free access to the EU single market for almost all exports, as well as EU financial support in their reform efforts. The associated agreements focus on respect for key democratic principles and the development of market economies. More detailed information on this process can be found at: http://ec.europa.eu/enlargement/the-policy/countries-on-the-road-to-membership/index_en.htm.

[30] We use a moving average of survey data collected over the two years. For more information on the EOS survey procedure and the calculation of country-level values, see Chapter 2.1 of The Global Competitiveness Report 2008–2009.

[31] As The Lisbon Review 2006 preceded that year's accession of the last two new member countries, we did not rank them together with the then EU 25 countries. Table 2 shows the 2006 ranking among the 27 EU countries included in the 2006 edition as it would have appeared based on their underlying scores.

[32] Two CIS members, Belarus and Turkmenistan, are not included in this analysis due to lack of Executive Opinion Survey data from these countries.

[33] Indeed, Azerbaijan is ranked 33rd out of 181 countries in the World Bank's recently released Doing Business in 2009.

[34] Note that Georgia informed the CIS of its intention to exit the CIS in August 2008, which will be effective one year later.

[35] Council of the European Union, 2008.

Appendix A: The Lisbon Diamonds of Country Performance

This appendix displays the Lisbon Diamond charts, comparing individual EU country performances, vis-à-vis the US and East Asia benchmarks. As explained in the text, a country with a perfect performance in any of the eight dimensions would have a score of seven, so that the larger a diamond is, the more competitive is the country, as measured by the Lisbon criteria. In each figure, the individual country's performance is represented by a blue line, that of the US is in grey, and that of East Asia is in black. Dimensions in which the individual country's line extends further out than that of the US or East Asia indicate areas where the country outperforms these comparators.

Legend

- EU country
- East Asia
- United States

Figure 1: Austria

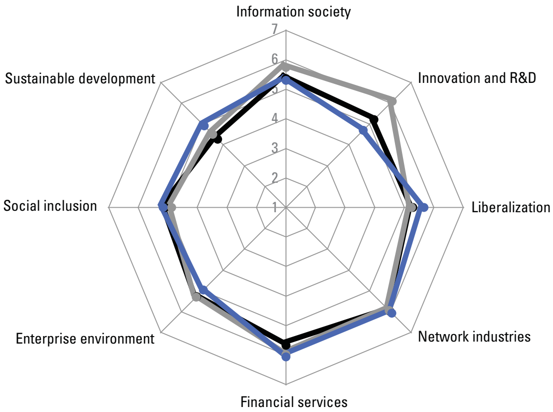


Figure 2: Belgium

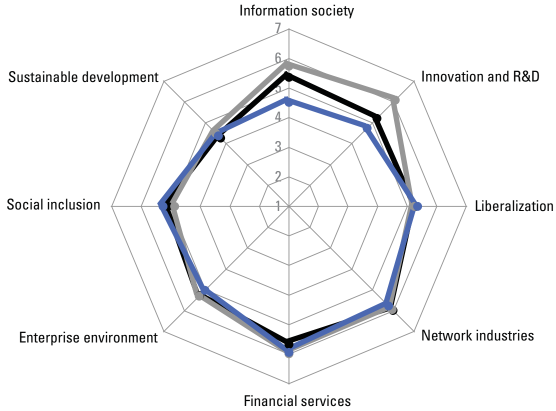


Figure 3: Bulgaria

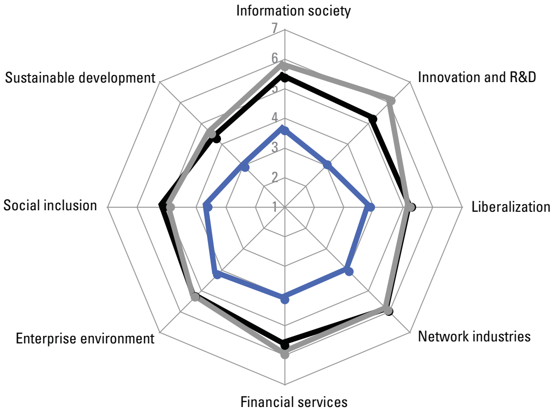


Figure 4: Cyprus

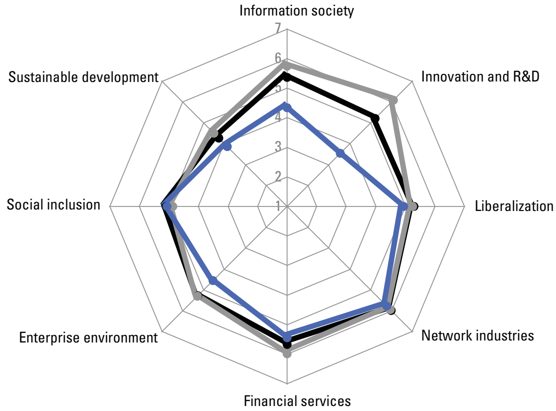


Figure 5: Czech Republic

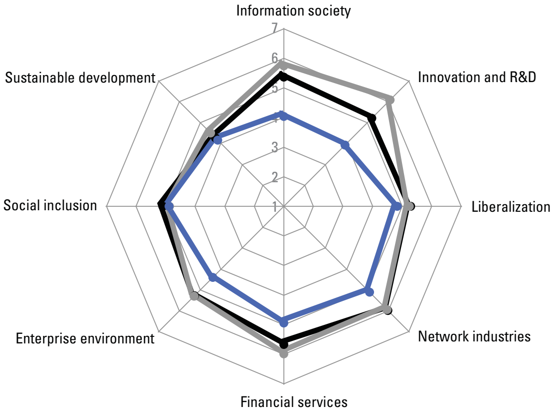


Figure 6: Denmark

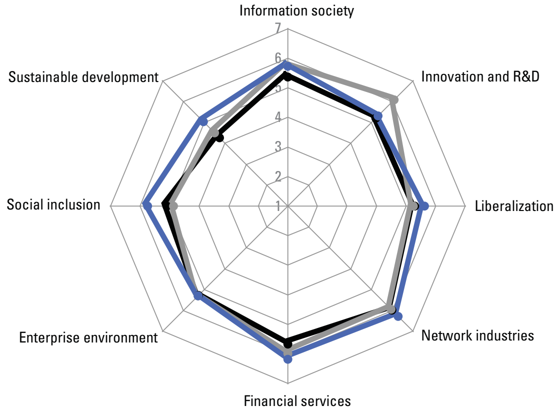


Figure 7: Estonia

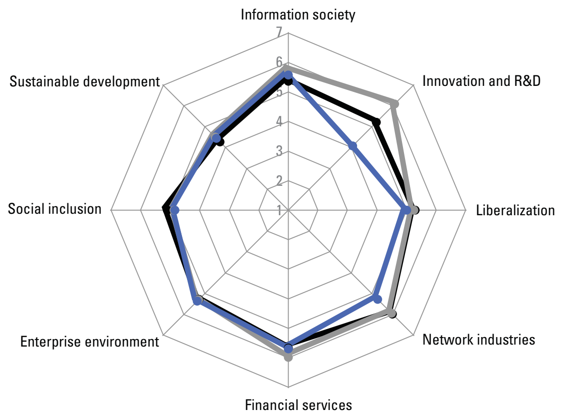


Figure 8: Finland

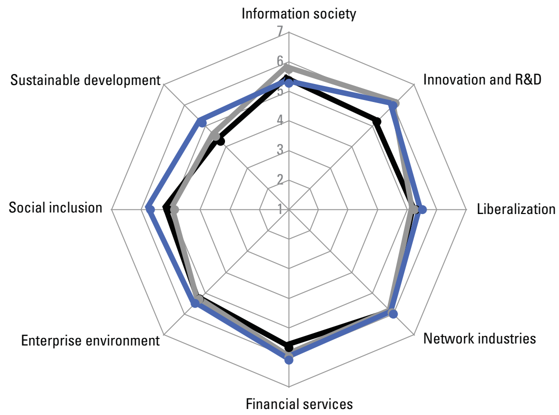


Figure 9: France

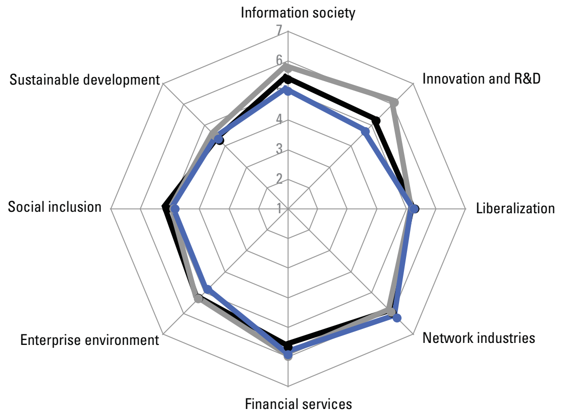


Figure 10: Germany

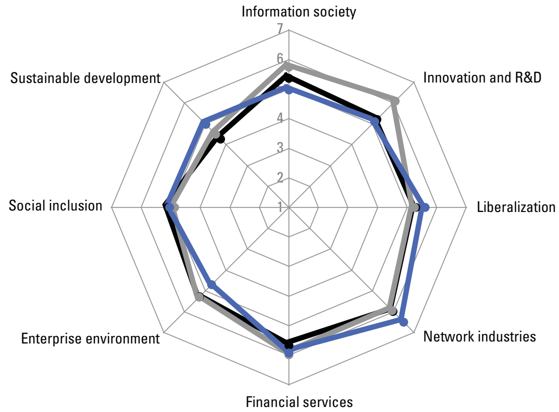


Figure 11: Greece

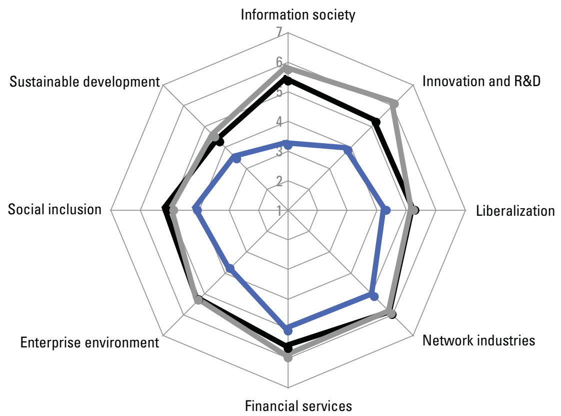


Figure 12: Hungary

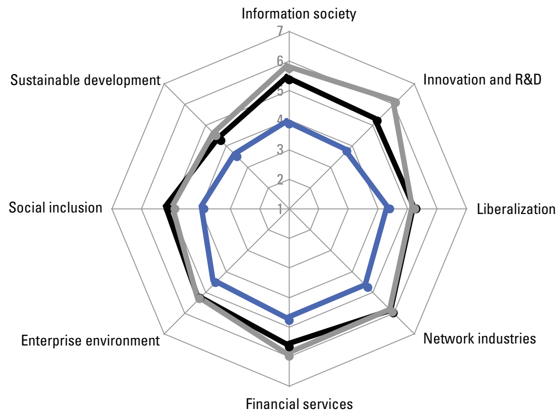


Figure 13: Ireland

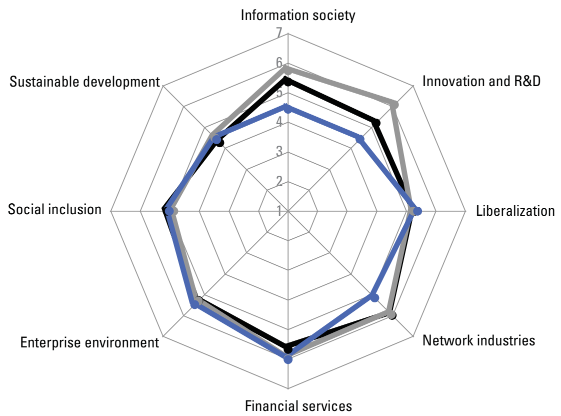


Figure 14: Italy

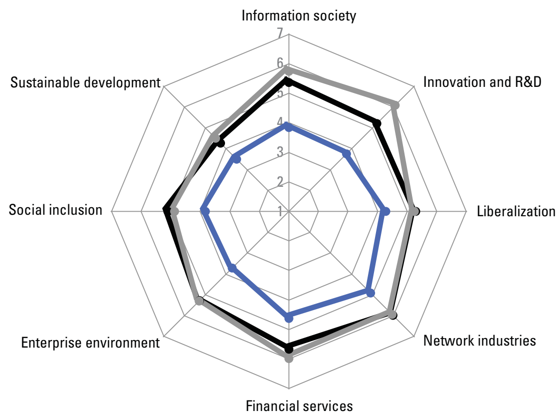


Figure 15: Latvia

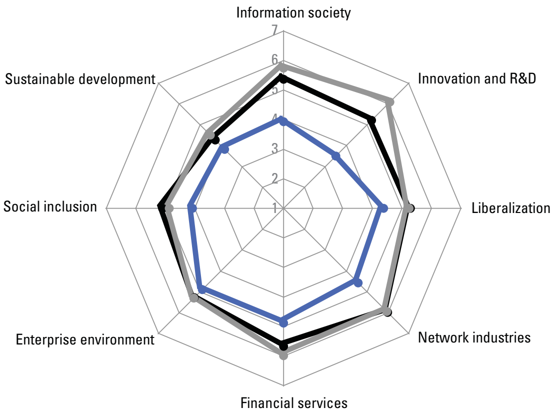


Figure 16: Lithuania

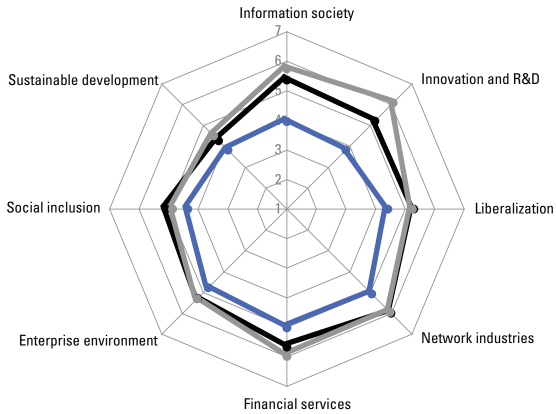


Figure 17: Luxembourg

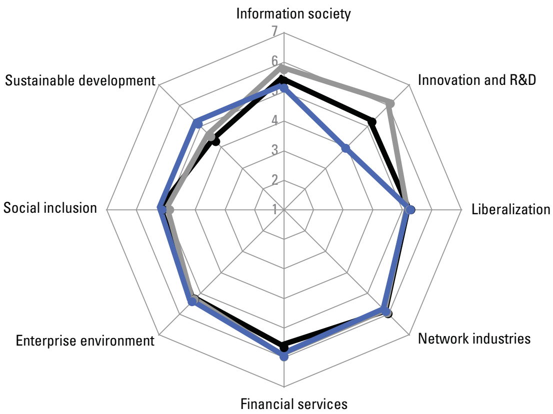


Figure 18: Malta

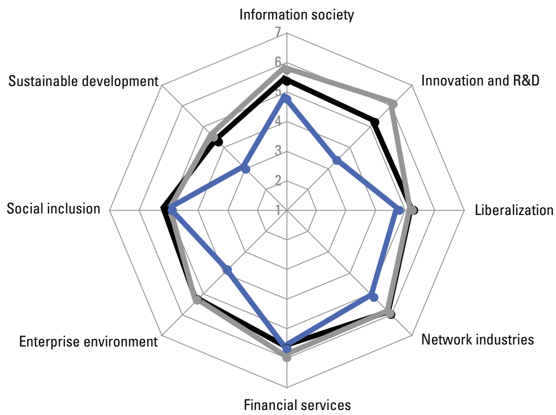


Figure 19: Netherlands

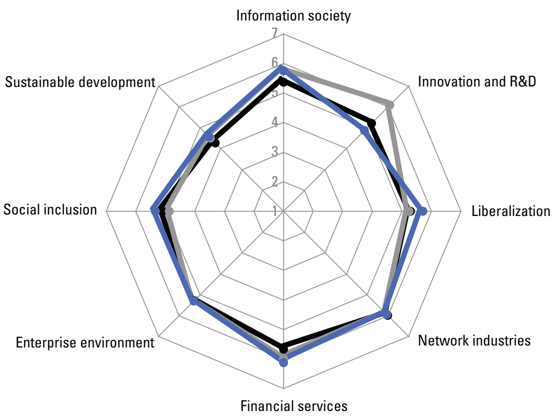


Figure 20: Poland

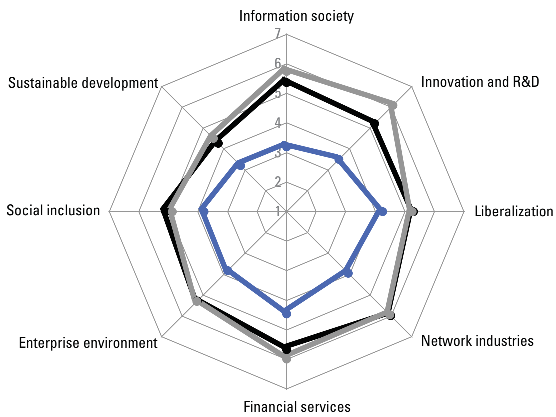


Figure 21: Portugal

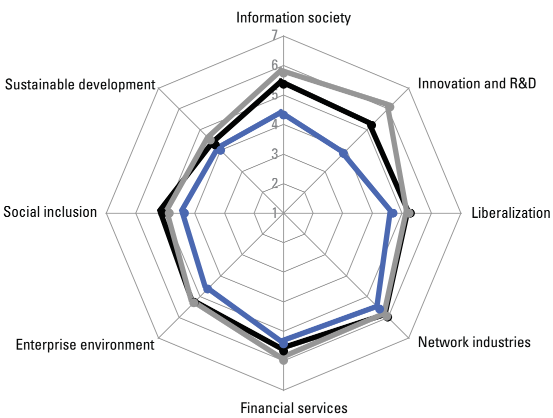


Figure 22: Romania

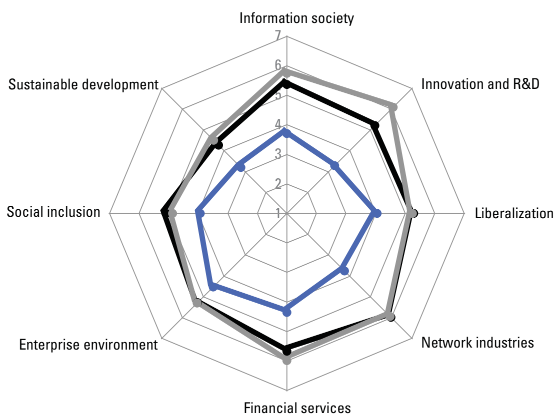


Figure 23: Slovak Republic

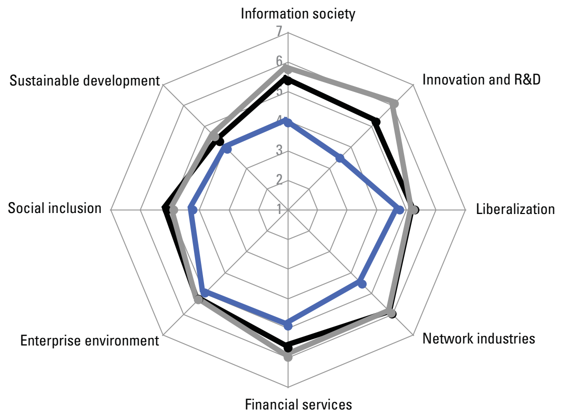


Figure 24: Slovenia

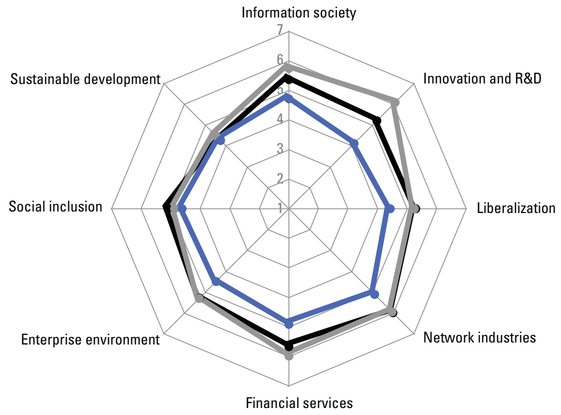


Figure 25: Spain

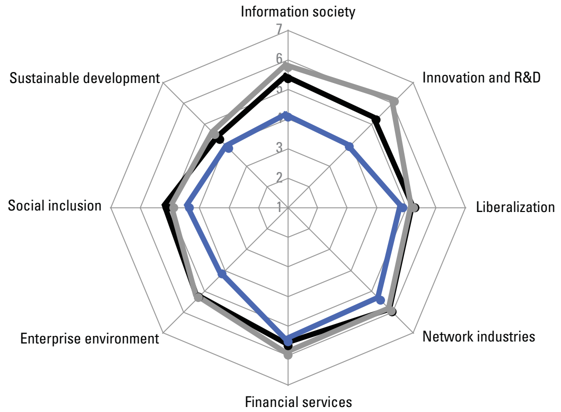


Figure 26: Sweden

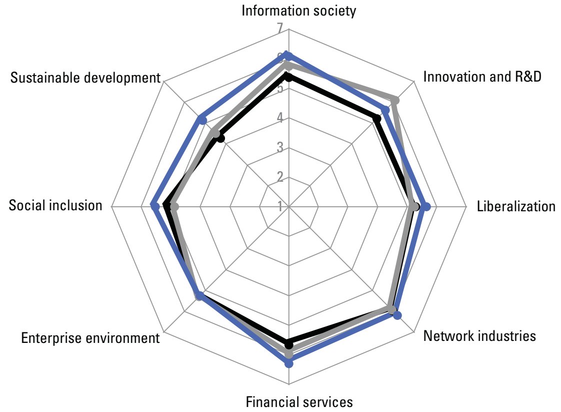
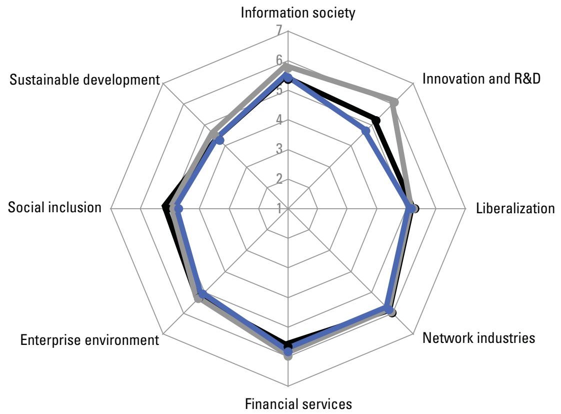


Figure 27: United Kingdom



Appendix B: Composition and Weighting of the Lisbon Review Index 2008

This appendix provides details on how the Lisbon Review Index is constructed, based on hard data from various sources and data from the Executive Opinion Survey. The left column lists the variables used in each of the eight dimensions, separating them by whether they are of hard or survey data; in the right column are the specific weights of each group of variables within its parent category. These weightings are used to compute the overall Index. For further information on the dataset described here, please contact the Global Competitiveness Network at gcp@weforum.org.

1. Information Society	1/8
Survey data:	2/3
Information and communication technologies (ICT – computers, Internet, etc.) are an overall priority for the government (1 = strongly disagree, 7 = strongly agree)	
Government programmes promoting the use of ICT are (1 = not very successful, 7 = highly successful)	
In your country, online government services such as personal tax, car registrations, passport applications, business permits and e-procurement are (1 = not available, 7 = extensively available)	
Laws relating to the use of information technology (electronic commerce, digital signatures, consumer protection) are (1 = non-existent, 7 = well-developed and enforced)	
Is there sufficient competition among Internet service providers in your country to ensure high quality, infrequent interruptions and low prices? (1 = no, 7 = yes, equal to the best in the world)	
In your country, companies use the Internet extensively for buying/selling goods and services and for interaction with customers (1 = strongly disagree, 7 = strongly agree)	
Internet access in schools is (1 = very limited, 7 = extensive - most children have frequent access)	
Hard data:	1/3
Internet users per 100 population, 2006 Sources: International Telecommunication Union; national sources	
Personal computers per 100 population, 2006 Sources: International Telecommunication Union; national sources	

2. Innovation and Research and Development	1/8
Survey data:	2/3
In your country, the latest technologies (1 = are not widely available nor used, 7 = widely available and used)	
Companies in your country are (1 = not able to absorb new technology, 7 = aggressive in absorbing new technology)	
Scientific research institutions in your country (e.g., university laboratories, government laboratories) are (1 = non-existing, 7 = the best in their fields internationally)	
Companies in your country (1 = do not spend money on research and development, 7 = spend heavily on research and development relative to international peers)	
In the R&D area collaboration between the business community and local universities is (1 = minimal or nonexistent, 7 = intensive and ongoing)	
In your country, government procurement decisions result in technological innovation (1 = strongly disagree, 7 = strongly agree)	
Intellectual property protection and anti-counterfeiting measures in your country (1 = is weak and not enforced; 7 = is strong and enforced)	
Companies obtain technology (1 = exclusively from licensing or imitating foreign companies, 7 = by conducting formal research and pioneering their own new products and processes)	
Scientists and engineers in your country are (1 = nonexistent or rare, 7 = widely available)	
Hard data:	1/3
Number of utility patents (i.e. patents for invention) granted between January 1 and December 31, 2006, per million population Source: The United States Patents and Trademark Office	
Gross tertiary enrolment rate, 2006 Sources: UNESCO Institute for Statistics; The World Bank; national sources	

3. Liberalization	1/8
Completing the Single Market/State Aid and Competition Policy	
Survey data:	
Competition in the local market is (1 = limited in most industries, 7 = intense in most industries)	
Local suppliers in your country are (1 = largely nonexistent, 7 = numerous and include the most important materials, components, equipment, and services)	
The quality of local suppliers in your country is (1 = very poor, 7 = very good)	
Standards on product/service quality, energy and other regulations (outside environmental regulations) in your country are (1 = lax or nonexistent, 7 = among the world's most stringent)	
Anti-monopoly policy in your country is (1 = lax and not effective at promoting competition, 7 = effective and promotes competition)	
Corporate activity in your country is (1 = dominated by a few business groups, 7 = spread among many firms)	
Foreign ownership of companies in your country are (1 = rare and limited, 7 = prevalent and encouraged)	
In your country, rules governing foreign direct investment are (1 = discourage foreign direct investment, 7 = encourage foreign direct investment)	
Agricultural policy in your country (1 = is excessively burdensome for the economy, 7 = balances the interests of taxpayers, consumers and producers)	
When deciding upon policies and contracts, government officials in your country (1 = usually favour well-connected firms and individuals, 7 = are neutral)	
In your country, government subsidies and tax breaks seriously distort competition (1 = strongly agree; 7 = strongly disagree)	

4. Network Industries	1/8
Telecoms	1/2
Survey data:	1/2
New telephone lines for your business are (1 = scarce and difficult to obtain, and unreliable, 7 = widely available and highly reliable)	
Hard data:	1/2
Mobile telephone subscribers per 100 population, 2006 Sources: International Telecommunication Union; national sources	
Main telephone lines per 100 population, 2006 Sources: International Telecommunication Union; national sources	
Utilities and Transport	1/2
Survey data:	
General infrastructure in your country is (1 = underdeveloped, 7 = extensive and efficient by international standards)	
Roads in your country are (1 = underdeveloped, 7 = extensive and efficient by international standards)	
Railroads in your country are (1 = underdeveloped, 7 = extensive and efficient by international standards)	
Passenger air transport in your country is (1 = underdeveloped, 7 = extensive and efficient by international standards)	
The quality of electricity supply in your country (lack of interruptions and lack of voltage fluctuations) is (1 = worse than in most other countries, 7 = meets the highest standards in the world)	
Do you trust your country's postal system sufficiently to have a friend mail a small package worth US$ 100 to you? (1 = no, not at all, 7 =yes, I trust the system entirely)	

5. Financial Services	1/8
Survey data:	
Property rights in your country, including over financial assets (1 = are poorly defined and not protected by law, 7 = are clearly defined and well protected by law)	
The level of sophistication of financial markets in your country is (1 = poor by international standards, 7 = excellent by international standards)	
Banks in your country are (1 = insolvent and may require a government bailout, 7 = generally healthy with sound balance sheets)	
Raising money by issuing shares on the local stock market is (1 = impossible, 7 = very easy)	
Financial auditing and reporting standards regarding company financial performance in your country are (1 = extremely weak, 7 = extremely strong, the best in the world)	

6. Enterprise Environment	1/8
Business Start-up Environment	1/2
Survey data:	**1/2**
Starting a new business in your country is (1 = extremely difficult, 7 = easy)	
How easy is it to obtain a bank loan in your country with only a good business plan and no collateral? (1 = impossible, 7 = easy)	
In your country, how easy is it for entrepreneurs with innovative but risky projects to find venture capital? (1 = impossible, 7 = very easy)	
Hard data:	**1/2**
Number of procedures required to start a business, 2008 Source: The World Bank, *Doing Business 2009*	
Number of days required to start a business, 2008 Source: The World Bank, *Doing Business 2009*	
Regulatory Environment	1/2
Survey data:	**1/2**
Complying with administrative requirements (permits, regulations, reporting) issued by the government in your country is (1 = burdensome, 7 = not burdensome)	
The level of taxes in your country (1 = significantly limits the incentives to work or invest, 7 = has little impact on the incentives to work or invest)	
Are firms in your country usually informed clearly by the government on changes in policies and regulations affecting your industry? (1 = never informed; 7 = always informed)	
Hard data:	**1/2**
Number of procedures required to resolve a contract dispute, 2008 Source: The World Bank, *Doing Business 2009*	
Number of days required to resolve a contract dispute, 2008 Source: The World Bank, *Doing Business 2009*	

7. Social Inclusion	1/8
Bringing People Back to Workforce	1/3
Survey data:	**2/3**
In your country, pay is (1 = not related to worker productivity, 7 = strongly related to worker productivity)	
Hard data:	**1/3**
Female participation in the labour force as a percentage of male participation, 2006 Source: International Labour Organization	
Unemployment rate, 2007 Sources: EuroStat; Economist Intelligence Unit; national sources	
Upgrading Skills	1/3
Survey data:	
The educational system in your country (1 = does not meet the needs of a competitive economy, 7 = meets the needs of a competitive economy)	
Primary schools in your country are (1 = of poor quality, 7 = among the best in the world)	
Math and science education in your country's schools (1 = lag far behind most other countries' schools, 7 = are among the best in the world)	
Your country's talented people (1 = normally leave to pursue opportunities in other countries, 7 = almost always remain in the country)	
The general approach of companies in your country to human resources is (1 = to invest little in training and employee development, 7 = to invest heavily to attract, train, and retain employees)	
Modernizing Social Protection	1/3
Survey data:	
In your country, the government's efforts to reduce poverty and address income inequality are (1 = ineffective, 7 = effective)	

8. Sustainable Development	1/8
Survey data:	**3/4**
How stringent is your country's environmental regulation? (1 = lax compared to most countries, 7 = among the world's most stringent)	
Enforcement of environmental regulations in your country is (1 = lax, 7 = rigorous)	
The natural environment in your country is (1 = among the most polluted in the world, 7 = as clean as the least polluted in the world)	
Hard data:	**1/4**
Environmental Treaty ratification, 2007 Source: International Union for Conservation of Nature (IUCN)	

Note: The hard data must be normalized to a 1-7 scale in order to blend it with the Survey data. The normalization is performed using the following standard formula:

6 x (country value – sample minimum)/(sample maximum – sample minimum) + 1

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