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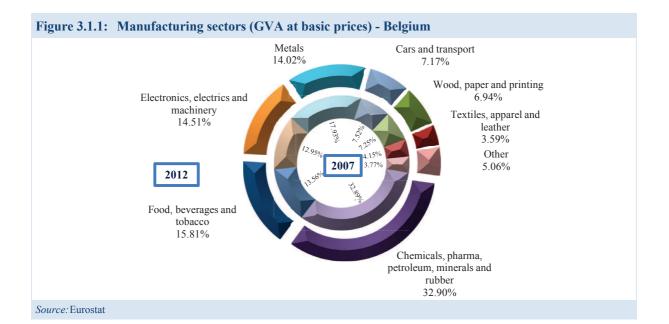
COMMISSION STAFF WORKING DOCUMENT

Reindustrialising Europe

Member States' Competitiveness Report 2014

3.1 Belgium

	Belgium Position compared to the weakest (=0) and the best (=1) Member State			
		(either 2007 or the fatest available) 0 * For full explanation, see the methodological annex 1		
Labour productivity	Labour productivity per hour worked (EU-27=100; 2013)			
Lab produ	Labour productivity per person employed in manufacturing (1000 PPS; 2013)	□ latest available -5 years □ latest available		
	Total exports as a % of GDP (2013)	EU latest available		
Exports	Knowledge-intensive exports (% of total exports; 2012)			
	Exports of environmental goods as % of all exports of goods (2013)			
a	Innovation Union Scoreboard (2013)			
Innovation	R&D performed by businesses (% of GDP; 2012)			
9	Non-financial high-growth enterprises as % of all enterprises (2012)	N.A. (2007)		
Indust	ry Manufacturing GVA as % of total GVA (2013)			
Access to finance	SME Access to Finance Index (SMAF; 2012)			
Acco	Year-on-year growth of loans to non-financial corporations (%; Q1 2014)			
kills	Investment in equipment as % of GDP (2011-13)			
Investment and skills	Employment in knowledge-intensive activities (manufacturing and services) as % of total employment (2012)			
/estme1	% of employees in manufacturing with high educational attainment (2013)			
Ę	Tertiary graduates in mathematics, science and technology per 1000 of population aged 20-29 (2012)			
aw Is	Energy intensity in industry and the energy sector (kg oil eq. / euro GVA; reference year 2005; 2012)			
Energy, raw materials	CO2 intensity in industry and the energy sector (kg CO2 / euro GVA; reference year 2005; 2012)			
	Electricity prices for medium-sized enterprises excluding VAT (euro per kWh; 2nd half of 2013)			
ts, ervices	OECD indicators of product market regulation / services (2013)			
marke e and s	Trade integration in the single market (2013)			
Access to markets, infrastructure and services	Satisfaction with quality of infrastructure (rail, road, port and airport) (1=underdeveloped / 7=extensive and efficient by int'l standards; 2012-13)			
A infras	% of broadband lines with speed \geq 30 Mbps (2014)			
s	Time required to start a business (days; 2013)			
ic administra and business	Number of hours needed to comply with tax return rules across the EU (2013)			
Public administration and business environment	Legal and regulatory framework (0= neg. / 10=pos.; 2014)			
Pt	Business environment score (1= best and 0 = worst; 2012-13)			
Note:	Early data for "% of broadband lines with speed \geq 30 Mbps" refer to 201	I.		



3.1.1 Introduction and performance

Belgium is specialised in capital-intensive industries, and sectors with medium to high educational and innovation intensity, such as chemicals, petroleum, and textiles. Over the last five years the country has become more service-oriented than the average EU economy, both in terms of value added and employment.

In response to relatively fast wage growth, manufacturing companies have increased their valueadded deflator, causing real output growth to fall and thus also affecting employment. To contain the wage handicap that the country suffers relative to its neighbours, the Belgian authorities have made increasing use of various types of wage subsidies over the past decade. Although these have had a not insignificant effect in some industries, the focus on job creation has led to a significant proportion of this type of support being directed towards domestic and not-for-profit sectors.

Trends in productivity have varied significantly across industries in recent years, as a result of which the relative unit labour costs vis-à-vis Belgium's main trading partners are also very different in the various sectors. Most manufacturing industries, and in particular textiles, chemicals, electrical equipment and car manufacturing, have suffered a sizeable competitiveness loss over the last five years due to higher unit labour costs. To restore competitiveness to the economy as a whole, two objectives need to be achieved: improving cost competitiveness in critical industries and creating conditions favourable for business growth, i.e. conditions that encourage investment in infrastructure, human capital, mobility, and research and innovation, in particular with support for commercialisation.

3.1.2 Access to finance and investment

Small and medium-sized enterprises in Belgium have better than average access to finance compared to other EU countries. They also continue to enjoy easier access to public financial support than do many of their European counterparts. (¹³¹) In 2013, however, conditions became slightly more difficult, despite the many policy measures introduced to improve access to finance in recent years. However, its main European trade partners have made progress in this area. (¹³²)

SMEs rely on bank loans as their main source of external financing, with loans to SMEs making up a higher than average proportion of the loans to non-financial corporations. The flow of venture capital to early-stage investments has reduced by half, but remains above than the EU average.

^{(&}lt;sup>131</sup>) Small Business Act fact sheet 2013, Sub-index on access to equity finance 2012

^{(&}lt;sup>132</sup>) SME Access to Finance index 2012

A significantly higher proportion of SMEs in Belgium than in the EU on average reported having loan applications rejected or suffering from unacceptable lending conditions or difficulties in accessing public sector support programmes. The long delays in receiving payments from the public sector have, however, decreased significantly in recent years. (²)

The three regions have addressed these issues by widening the scope of the funding and guarantees that they offer. The Flemish Government has a fund (¹³³) specifically designed to finance spin-offs from research activities. The government also provides guarantees for businesses making it easier for them to obtain lines of credit from banks. The SME wallet, a support programme managed by the Flemish authorities, finances advice and training, including updating technological knowledge. (¹³⁴) The Walloon government offers support to SMEs, (¹³⁵) including an automatic mix of bank guarantees and co-funding to support start-ups and micro-enterprises. Another scheme offers subordinated loans to SMEs to part-finance specific innovation projects. (¹³⁶)

The large number of financial support schemes in place makes it difficult for SMEs to navigate their way through the complex subsidy landscape, which may explain the relatively low take-up of public support by innovative SMEs. In view of this, there is scope to further rationalise existing schemes and to reduce the administrative workload involved in applying for this type of support.

3.1.3 Innovation and skills

As 'innovation follower', (¹³⁷) Belgium' performance in this area is above the EU average. (¹³⁸) The criteria on which it scores particularly highly include joint international scientific joint publications, collaboration amongst innovative SMEs and publicprivate joint publications. Recent trends, however, show its rate of improvement to be significantly below the EU average. This is mainly due to a a reduction in expenditure on non-R&D innovation, the relatively low level of sales of new innovations as a proportion of turnover, and to a lesser extent, the relatively small number of fast-growing innovative firms.

Belgium appears to be broadly on track to meet its target of increasing investment in R&D to 3% of GDP by 2020. R&D intensity (139) has been increasing since 2005, thanks to growth in both public and private investment (with public sector investment increasing from 0.56 % of GDP in 2005 to 0.70 % in 2012, and investment by businesses climbing from 1.24% to 1.52%). Private investment in R&D is concentrated mainly in high-tech sectors, in particular pharmaceuticals, with medium-tech industry accounting for the next-largest part.

The increase seen since 2005 in the intensity of private R&D has, in part, been driven by the particularly notable growth of R&D expenditure in pharmaceuticals and services. Between 2005 and 2011, expenditure in these sectors increased as a proportion of the total from 25% to 31% in pharmaceuticals and from 17% to 21% in services. Between 2007 and 2011, R&D intensity also increased in most other manufacturing sectors.

The pharmaceutical sector is playing a particularly important role in Belgium's economy. At the same time, in recent years, many other sectors have benefited from knowledge-intensification of the economy and, to a certain extent, from a widening of the innovation base. There is still progress to be made in this area. In 2011, 43% of private R&D expenditure was concentrated in large firms (over 1000 employees) – only a small change from 46% in 2002.

The challenge is therefore to speed up its transition towards a more knowledge-intensive and innovationbased economy by fully exploiting the strengths of the research and innovation system, in particular by ensuring that the results of R&D in fact lead to innovative products and services coming onto the market. In particular, the quest for more fast-growing innovative firms (¹⁴⁰) would be supported by better business clusters, and more favourable conditions.

^{(&}lt;sup>133</sup>) Spin-off financieringsinstrument, SOFI.

^{(&}lt;sup>134</sup>) <u>http://www.pmv.eu/en/services/sofi</u>

^{(&}lt;sup>135</sup>) La Société Wallonne de Fina

⁽¹³⁾ La Société Wallonne de Financement et de Garantie des Petites et Moyennes Entreprises, SOWALFIN and its subsidiaries like SOCAMUT (La Société des Cautions Mutuelles de Wallonie) and Novallia.

^{(&}lt;sup>136</sup>) <u>http://www.kammco.be/fr/actualites/financement-tpe---</u> produit-mixte-automatique-de-la-socamut.htm <u>http://www.novallia.be/fr/index.html</u>

^{(&}lt;sup>137</sup>) The second-ranked group in the Innovation Union Scoreboard.

^{(&}lt;sup>138</sup>) Innovation Union Scoreboard 2014

^{(&}lt;sup>139</sup>) Investment as a percentage of GDP.

^{(&}lt;sup>140</sup>) Research and innovation performance in 2013, Country Profile Belgium, European Commission.

There is potential in particular in the service sector that is growing at a faster rate than manufacturing.

Belgium has already taken important steps towards achieving the transition described above: It has adopted a diversified smart specialisation strategy and is taking a leading role in the Vanguard Initiative (see section 1.4.2), extended the support offered to creative and green industries, and is directing efforts towards strategic innovation that will help industries to adapt to the changing markets.

Initiatives to steer private investment have been taken at all levels of government, particularly with the aim of better aligning investment in research and innovation with policies to support exports and encourage firms to integrate into international value chains. At regional level, schemes offering support for carrying out research tend to be fragmented and are being criticised by businesses as complex and time-consuming Although Belgium remains an attractive location for R&D investments e.g. due to its tax incentives, the sectoral disinvestment has also reduced the overall level of RDI investment. (¹⁴¹)

Labour market rigidities have led to evident skills shortages high-qualification jobs in and unemployment among lower-qualified job-seekers. Shortages of skilled professionals in technical occupations and growth sectors are hampering the efforts to improve the innovation performance of the Belgian economy. Adult participation in lifelong learning remains below the EU average, in particular for older and low-skilled workers. While the coordination of various sub-federal actors responsible for education, training and employment is improving, further efforts would be beneficial.

The government has taken initiatives to increase the number of science, technology and mathematics graduates, and this has led to some improvement recently. Despite this, Belgium continues to be below the EU average. $(^{142})$

3.1.4 Energy, raw materials and sustainability

The high level of energy use in industry, combined with the poor energy efficiency of households, make

the economy highly energy-intensive. The production of metals and chemicals represents a fifth of the total value added in industry, but accounts for almost twothirds of final industry energy consumption.

The high emissions intensity is mitigated by the high proportion of nuclear energy production in the country. A government plan from July 2013 provides a framework for phasing out nuclear energy, ensuring the security of electricity supply and increasing interconnection capacity. Uncertainty as to the future availability and cost of energy remain real concerns for businesses, however. (¹⁴³)

Strategies to reduce prices, such as conducting a review of the price indexation mechanism and increasing market transparency, are mainly directed towards the consumer market. The planned regionalisation of electricity distribution tariffs has added to the uncertainty surrounding the future changes in distribution costs for end-users. At regional level, measures have been taken to support cogeneration in order to reduce costs for energyintensive industries and advice and support is also being provided for SMEs.

In order to achieve its targets for reducing greenhouse gas emissions, Belgium needs to take further action to make road transportation more environmentally friendly. (¹⁴⁴) Traffic congestion at peak times constitutes a major problem in Belgium, in large towns and cities and on the main routes between urban centres.

3.1.5 Access to markets, infrastructure and services

Belgium's main exports are low and mediumtechnology goods, which are subject to greater price competition than high-tech goods. Over the past decade, the country has increasingly specialised in intermediate goods. Total exports of goods and services have been growing at a lower rate than have exports from the euro area as a whole, and only a relatively small increase has been seen in exports of high-tech goods.

^{(&}lt;sup>141</sup>) Idem.

⁽¹⁴⁾ In-Depth Review, Macroeconomic Imbalances, Belgium 2014.

^{(&}lt;sup>143</sup>) Benchmarking study of electricity prices between Belgium and neighbouring countries, Deloitte and Touche 2013.

^{(&}lt;sup>144</sup>) See the Country-Specific Recommendations for Belgium, <u>http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%20</u> 10772%202014%20INIT

The range of destinations for exports is, however, becoming increasingly diverse. In 2013, neighbouring countries were still the main destination for Belgian exports of goods and services, but the proportion of exports going to the larger emerging markets has continued to grow. Belgian exporters have also benefited indirectly from new markets through exports to Germany. (¹⁴⁵)

Increasing the competitiveness of its goods exports remains a challenge for Belgium and the increase in exports in services was not sufficient to compensate for the loss of market share seen in exports of goods. Further, the administrative costs for exporting are considerably higher in Belgium than in many other EU countries. $(^2)$

On the other hand, however, exporting firms benefit from the highly-developed support mechanisms available to them, such as the financial and commercial guarantees offered by the public credit insurance scheme, and the government-supported international networking initiatives. These are directed towards particular markets and sectors, on the basis of a prior analysis of the needs and commercial opportunities available.

Prices for goods and services are generally higher in Belgium than in other Member States, due to operational restrictions and yet unresolved obstacles to competition in the retail sector. (¹⁴⁶) The planned regionalisation of regulations on setting up businesses provides an opportunity for lowering barriers to entry but the risk of market fragmentation needs to be actively managed.

Regulation of the provision of professional services continues to be excessive, in particular in the areas of legal, accounting and architectural services. A new competition authority was established in September 2013, replacing the old competition council. Despite the increase in its budget, the authority remains small compared to competition authorities in similar size countries. (¹⁴⁷)

The quality of transport infrastructure has been continually deteriorating over the past two decades. The Belgian authorities are trying to address the

(¹⁴⁵) http://www.abh-

ace.be/en/statistics/buitenlandse_handel_belgie/

(¹⁴⁶) OECD Product market database.

problems by investing more, in particular in the road network in Flanders, in the regional rail network around Brussels, in multimodal transport systems in Wallonia, and in systems to improve the coordination of public transport between the different providers.

The markets for rail and air transport continue to function inefficiently. The regulator responsible for the main airports is not fully independent. Further, Belgium has not yet opened up its domestic rail passenger market to competition and the punctuality and reliability of railway services remain a concern.

The use of mobile broadband is increasing in Belgium, but the country still has one of the lowest penetration rates in the EU. The adoption of the telecommunications law in 2012 which simplified the procedure for switching providers has reinvigorated the Belgian mobile telephony market. (¹⁴⁸)

3.1.6 Public administration and business environment

The size of the public sector relative to the economy has further increased. Public services are generally perceived as being effective and of good quality, although administrative obstacles remain an issue. (¹⁴⁹) Greater efforts are being made at the federal and regional level with the aim of ensuring that the government is able to meet its payments as they fall due.

The use of information technologies and innovative tools in public administration remains limited compared with private firms. (¹⁵⁰) A number of issues were encountered introducing evidence-based tools into public sector practices, leading into delays. These problems are now being addressed. (¹⁵¹) At regional level Belgium needs to implement the SME test as part of assessing the impact of regulations.

The generally low level of bureaucracy masks the negative effect that 'red tape' is in fact having in areas critical for competitiveness. $(^{152})$ The main

⁽¹⁴⁷⁾ Commission Staff Working Document, Assessment of the 2014 national reform programme and stability programme for BELGIUM, SWD(2014) 402 final

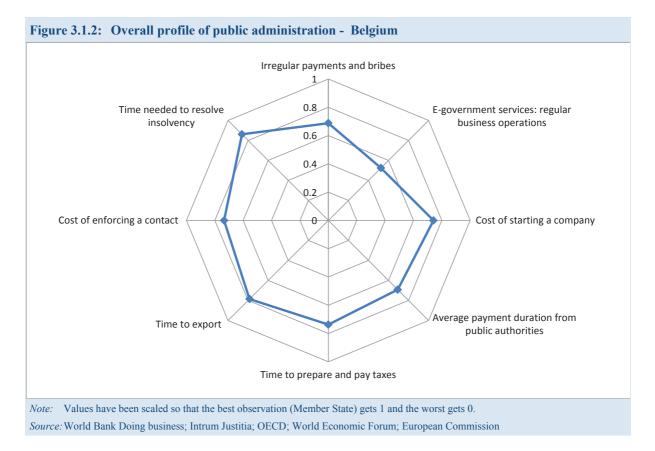
^{(&}lt;sup>148</sup>) Digital Agenda Scoreboard 2013.

^{(&}lt;sup>149</sup>) Public Sector Innovation scoreboard 2013? European Commission

^{(&}lt;sup>150</sup>) Compétitivité de la Belgique 2012

^{(&}lt;sup>151</sup>) Excellence of Public Administration for Competitiveness in the EU Member States 2012

^{(&}lt;sup>152</sup>) Complexity of regional support schemes and employment subsidies, costs of export documents, administrative burden in taxation, employment and environment, weaknesses in the justice system, lack of coherence in immigration policy



issues are linked to entrepreneurship, and high startup and licensing costs.

The lack of entrepreneurial ambition has been a problem for some time. The three regions have taken significant action to promote entrepreneurship and these have delivered positive results. Further research is however needed to identify the underlying causes of this issue, and to achieve a change in attitudes, especially among young potential entrepreneurs, a long-term policy push is most likely needed.

The regional governments have lunched a number of initiatives to simplify the granting of building permits and for registering property. Belgian law continues to require businesses to have relatively high minimum level of paid-in capital. Legislation remains complex in the areas of tax and social security, but noticeable improvement has been seen in environmental legislation. Simplification of the tax system would benefit the business environment, in particular by increasing transparency and reducing compliance costs.

The current tax system places a high tax burden on labour, while environmental taxes remain low. In view of this, there is reason to believe that shifting taxation to less growth-distortive tax bases would support economic growth and employment while at the same time having a positive effect on the environment.

Belgium remains an attractive destination for foreign investment, as demonstrated by the increase in foreign capital in the economy and in the retained earnings of foreign corporations, which have grown from 114% of GDP in 2005 to 153% in 2012. The average number of jobs created by foreign investment is, however, only half of that in other EU countries. (¹⁵³)

3.1.7 Conclusions

During the period under review, Belgium has lost ground because of low productivity growth, loss of cost competitiveness, specialisation in low and medium-tech goods, and geographical orientation towards neighbouring countries.

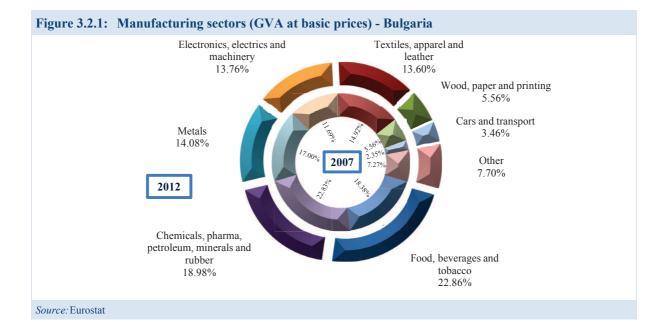
^{(&}lt;sup>153</sup>) <u>http://www.nbb.be/belgostat</u> Ernst and Young Barometer of Belgian attractiveness

Belgium will need to address a number of issues to increase its competitiveness. To restore cost competitiveness, it needs to keep growth in real wages in line with labour productivity and to address uncertainties in the energy market. The authorities could also take steps to further improve the attractiveness of the business environment, in particular by investing in transport and energy infrastructure, simplifying and rationalising administrative procedures, reducing the burdens on businesses, and continuing to invest in innovation in the public sector.

To restore non-cost competitiveness, and accelerate the transition towards a more knowledge-intensive economy, Belgium has further scope to do more to address the skills mismatch, to make technical careers more attractive, and to promote financing of research and innovation across a wider range of sectors and firms. In addition, it could encourage the commercialisation of innovative products and services, and continue to promote on industrial regeneration in order to boost productivity by exploiting new sources of growth.

3.2 Bulgaria

	Bulgaria Position compared to the weakest (=0) and the best (=1) Member State				
		(either 2007 or the latest available) 0 * For full explanation, see the methodological annex 1			
Labour productivity	Labour productivity per hour worked (EU-27=100; 2013)	□ latest available -5 years ■ latest available			
prodi	Labour productivity per person employed in manufacturing (1000 PPS; 2013)	N.A.; N.A. (2008) =EU latest available			
S	Total exports as a % of GDP (2013)				
Exports	Knowledge-intensive exports (% of total exports; 2012)				
	Exports of environmental goods as % of all exports of goods (2013)				
ion	Innovation Union Scoreboard (2013)				
Innovation	R&D performed by businesses (% of GDP; 2012)	N.A. (2007)			
-	Non-financial high-growth enterprises as % of all enterprises (2012)	(N.A. (2007)			
Industr	ry Manufacturing GVA as % of total GVA (2013)	N.A.; N.A. (2008)			
Access to finance	SME Access to Finance Index (SMAF; 2012)				
Υ ^C	Year-on-year growth of loans to non-financial corporations (%; Q1 2014)				
l skills	Investment in equipment as % of GDP (2011-13) Employment in knowledge-intensive activities (manufacturing and services)				
ent and	as % of total employment (2012)				
Investment and skills	% of employees in manufacturing with high educational attainment (2013) Tertiary graduates in mathematics, science and technology				
-	per 1000 of population aged 20-29 (2012) Energy intensity in industry and the energy sector				
y, raw rials	(kg oil eq. / euro GVA; reference year 2005; 2012) CO2 intensity in industry and the energy sector				
Energy, raw materials	(kg CO2 / euro GVA; reference year 2005; 2012) Electricity prices for medium-sized enterprises excluding VAT				
	(euro per kWh; 2nd half of 2013) OECD indicators of product market regulation / services (2013)	N.A. (2008)			
arkets, re and s					
Access to markets, infrastructure and services	Satisfaction with quality of infrastructure (rail, road, port and airport) (1=underdeveloped / 7=extensive and efficient by int'l standards; 2012-13)				
Acce infra	(1-underdeveloped / /-extensive and efficient by inf standards, $2012-13$) % of broadband lines with speed ≥ 30 Mbps (2014)				
noii	Time required to start a business (days; 2013)				
inistrat siness nment	Number of hours needed to comply with tax return rules across the EU (2013)				
Public administration and business environment	Legal and regulatory framework (0= neg. / 10=pos.; 2014)				
Pub	Business environment score (1= best and 0 = worst; 2012-13)				
Note: Early data for "% of broadband lines with speed \geq 30 Mbps" refer to 2011.					



3.2.1 Introduction and performance

Bulgarian industry is still characterised by low productivity and a low level of innovation. Doing business has become slightly easier, but Bulgaria's improved ranking on this score (to 58th from 66th in 2013), (¹⁵⁴) mostly due to a decline in other countries' performance.

Although Bulgarian companies enjoy a fixed 10% flat tax rate, they still underinvest in research and innovation. The tax incentive seems not to have increased investment in these activities. In recent years, economic growth has been hampered by political instability due to early general elections and three governments. The risk of political instability remains. (¹⁵⁵)

The Commission's 2014 spring forecast (156) for annual growth was 1.7% in 2014 and 2.0% in 2015. Economic growth has not yet recovered to pre-crisis levels. Prices are forecast to fall by 0.8% in 2014. Private consumption fell by 2.3% in 2013 after a 3,7% rise in 2012. This was partly compensated by public consumption growth of 2,5% in 2013 (after a 0,5% fall in 2012).

The economy depends on gas imports from Russia. Manufacturing accounted for 22.3 % of the gross

value added, and construction 9.7 % in 2013. (157) The production of medium-high technology sector has been growing relatively robustly (3.8% on average) between 2005 and 2011 (158). However, the increase in high-tech has been weaker (1.9 %). (159)

The share of chemicals and pharmaceuticals, classified as a high value-added sector, shrank from 22.0 % (2008) to less than 15.7 % (2011), whereas metals, which account for a large proportion of primary raw material exports increased from 11.5% (2008) to 17.6% (2011).

3.2.2 Access to finance and investment

The payment of arrears by public authorities improved in 2013, partly through the implementation of the late payments directive. The 2013 budget provided for arrears of EUR 67 million to be paid. (160) In addition, since July 2013 the 30-day limit for refunding is checked monthly, which has reduced delays. (161)

(¹⁵⁹) $\frac{\text{SF-13-001/EN/KS-SF-13-001-EN.PDF}}{\text{Decrease in low-tech (-1,4% while for EU-27 it was only -$

(¹⁶¹) 2014 Revision of National Reform programme – Europe 2020, Ministry of Finance, April 2014

^{(&}lt;sup>154</sup>) Doing Business 2014, "Understanding Regulations for Small and Medium-sized Enterprises", The World Bank and International Finance Corporation

^{(&}lt;sup>155</sup>) Several motions of no-confidence were discussed.

⁽¹⁵⁶⁾ http://ec.europa.eu/economy_finance/eu/forecasts/

⁽¹⁵⁷) Eurostat 2014.

⁽¹⁵⁸⁾ Eurostat – Statistics in focus, 1/2013, High-technology and medium-high technology industries main driver of EU-27's industrial growth: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-

 $^{(1^{(0)})}$ As modified by the National Assembly on 25/7/2013. On 30

^{(&}lt;sup>160</sup>) As modified by the National Assembly on 25/7/2013. On 30 June 2014 the remaining arrears were EUR 170 million.

Bulgaria's ranking for obtaining credit improved by 12 places (to 28th in 2014 from 40th in 2013), while its legal rights index rose by 1 point to 9 out of 10, and the coverage of the public credit registry increased from 56.3% of adults to 61.0%. (¹⁶²)

The government has emphasised the need of the banking sector to play a more active role to help firms access European funds. (¹⁶³) Already the loan guarantees of European structural funds have helped small and medium-sized enterprises (SMEs) to improve their access to bank lending.

Bulgaria performs better than the EU average on the banks' willingness to provide loans, with only 10.4 % of respondents indicating a decline in 2013 against 24.6 % for the EU as a whole. (164)

However, the banking sector has problems with SME lending, as loan losses are relatively high. (¹⁶⁵) In addition, venture capital investments are almost non-existent. (¹⁶⁶) Venture capital investments (supported by EU structural funds) have helped to kindle entrepreneurial activity, in particular in information and communications technology. There is potential to further expand venture capital investments, including to other high-growth sectors.

Despite many encouraging signs, overall bank lending to the economy has not increased, and effective policies have not been implemented. At the same time, many SMEs do not consider commercial banks as their main source of finance and work mainly on the basis of own capital. There are few alternative financing instruments available, and further development of business angel and venture capital financing is needed.

3.2.3 Innovation and skills

There are many innovative SMEs active in manufacturing and in knowledge-intensive services

although they have not been able to increase their share of the economy's gross value added. Bulgaria's innovation performance increased until 2010 but has been falling since. Its performance relative to the EU has declined from 44 % in 2011 to 33 % in 2013. $(^{167})$ The share of SMEs introducing product or process innovations, and marketing or organisational innovations, and of employment in fast-growing innovative firms, is well below the EU average. Cooperation between research institutions and businesses could be considerably improved. Innovation activities, including patent registration, lack support. European and public funding is being channelled to a technology park project that aims to facilitate technology transfer.

To improve the skills base, a national coalition for eskills has been launched, with support from businesses. (¹⁶⁸) Further, in a strategy for developing higher education from 2014 to 2020, published for discussion, the government indicated a need for a better match between the needs of the labour market and education, particularly university education. (¹⁶⁹)

Provision of higher education is being updated with European Social Fund support, involving 50 higher education institutions. The goal is to introduce new specialisation programmes that better match business needs, revising bachelor degrees to combine general content with practical training. However, the number of universities is high in relation to the total population, and in many cases their provision of degrees does not seem to evolve in line with labour market needs.

3.2.4 Energy, raw materials and sustainability

The economy is the most energy-intensive in the EU, with low energy and resource efficiency. The government is reviewing alternatives to energy imports from Russia, although Bulgaria has no access yet to energy supplies from the North Sea or the Gulf countries. A new-generation nuclear power plant is being planned. (170) The alternative, adding capacity

 ^{(&}lt;sup>162</sup>) Doing Business 2014
(¹⁶³) Council of Ministers, 29/5/2014: <u>http://www.government.bg/cgi-bin/e-</u> <u>cms/vis/vis.pl?s=001&p=0213&n=778&gs</u>

^{(&}lt;sup>164</sup>) Eurobarometer on Access to finance (2013), <u>http://ec.europa.eu/enterprise/policies/finance/files/2013-</u> <u>smes-dema_en.xlsm</u>

 ⁽¹⁶⁵⁾ European Payment Index 2013, White paper, Intrum Justitia
⁽¹⁶⁶⁾ EVCA, Eurostat (2012),

http://epp.eurostat.ec.europa.eu/tgm/download.do;jsessionid =9ea7d07d30dbf98df67298c14d2fbfcba2b3869471d5.e34M bxeSaxaSc40LbNiMbxeNb38Se0?tab=table&plugin=0&lan guage=en&pcode=tin00141

^{(&}lt;sup>167</sup>) 2014 Innovation Union Scoreboard.

^{(&}lt;sup>168</sup>) http://basscom.melontech.com/

 ⁽¹⁶⁹⁾ Publication by Ministry of Education and Science for public comments on 28/5/2014:

http://www.minedu.government.bg/?h=downloadFile&fileId=5859

⁽¹⁷⁰⁾ A referendum was hold in 2013 with 60,6% of votes in favour of development of a new nuclear power plant, however the participation being only 20,22%, it was not

to existing nuclear plants, has not been introduced either. The energy infrastructure acts as a brake for energy imports. Ensuring competition in energy markets, increasing renewable energy production and increasing energy efficiency would help to face these challenges. (¹⁷¹)

The cost to businesses of getting an electricity supply decreased from 340.7 % of income per capita to 320.0 %, but this was not enough secure a better ranking than 135th. (¹⁷²) The number of steps needed and time they take could be reduced. Requiring electricity providers to reduce energy consumption by providing incentives for energy efficiency has produced results in many Member States and could be considered in Bulgaria. European structural funds could be further used to improve the energy efficiency of buildings and to reduce energy costs.

Construction of a modern water and wastewater infrastructure for urban areas of more than 10 000 inhabitants also needs to improve. As one of the services provided by public authorities to businesses, this forms part of the proposal for the use of European structural funds. (173)

The government is revising the current waste management fee system, introducing the polluter pays principle. Until now fees have been based on firm size, not on the volume of waste produced. This has not provided incentives for resource efficiency and waste reduction.

3.2.5 Access to markets, infrastructure and services

Bulgarian exports are estimated to have grown again in 2013, (8.9 %), after falling by 0.4 percentage points in 2012. The export growth forecast for 2014 is 4.9%. However, slow procedures and the high costs of exporting deter full use of Bulgaria's geographical position as a potential trade hub between the EU and Eastern Partnership countries, including the Balkans, Turkey, Russia and Caucasus. More efficient and cost-effective customs services would help to accelerate trade and support economic growth as well as fighting tax fraud and tax evasion. This requires appropriate information technology, combined with more efficient monitoring technology and appropriate infrastructure along external borders. This is crucial as about 28 % of all counterfeit products that have been prevented from entering the single market are being confiscated at Bulgarian borders. (¹⁷⁴) It would seem that further efforts are needed to prevent counterfeit goods entering the EU internal market.

The conditions for international trade improved in 2013, with less time taken and fewer documents needed. Bulgaria's ranking improved from 93rd to 79th. (¹⁷⁵) Clear improvement has been made in costs per container for export, which fell by 11%. This is a better performance than in Romania, but still behind Greece or Turkey.

There is a need to improve rail, road and water transport further, so as to reduce transport costs and increase efficiency.

The national railways is likely to be reorganised and partially sold off, because it is unable to repay its loans. Discussions about details are being held with foreign operators, without clearly expressed overall strategy. The effect of all this on railway operations remains unclear. (¹⁷⁶)

The government has chosen improved transport connectivity and access to markets as one of its priorities for the European structural and investment funds. Improvements in regional transport infrastructure would also help to develop tourism. $(^{177})$

- ⁽¹⁷⁴) European Commission.
- $\binom{175}{176}$ Doing business 2014.

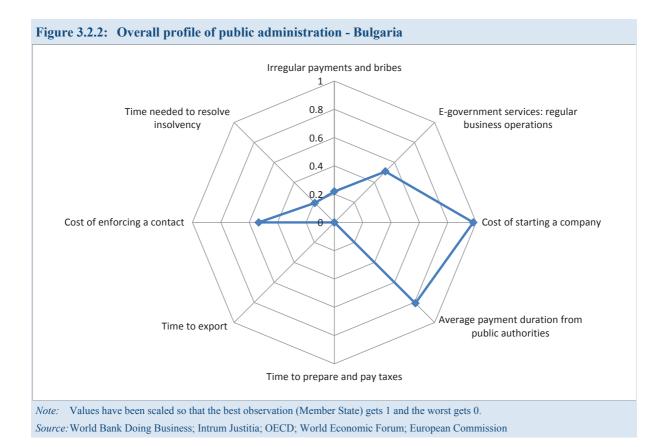
valid (required equivalent to previous referendum participation rate or 62,53%).

 ^{(&}lt;sup>171</sup>) See "Assessment of the 2014 national reform programme and convergence programme for Bulgaria", SWD(2014)403.
(¹⁷²) Doing Business 2014

^{(&}lt;sup>173</sup>) Ministry of Environment and Water management, May 2014, OP draft ref. CCI 2014BG16M1OP002

¹⁷⁶) <u>http://bdz.bg/novina.php?id=2209285</u>

¹⁷⁷) Ministry of Regional Development, draft OP "Regions in Growth", May 2014



3.2.6 Public administration and business environment

Efforts to enhance the quality of public administration continue but the fragmented approach adopted and a lack of policy commitment have limited their effectiveness. Implementing proposed simplification packages and success in making egovernment fully operational and interoperable would improve the business environment. Currently the difficulties are considerable, as institutional shortcomings and lacking administrative capacity seriously hamper competitiveness. (¹⁷⁸)

The government has taken some measures to reduce the administrative burden and to move towards smart regulation. However, the overall effectiveness of government remains well below the EU average. It is still redrafting rules on conducting regulatory impact assessments, in particular to assess the likely impact on enterprises and employment. (179)

Further progress has been made in some areas. Bulgaria's ranking for handling construction permits improved from 123th to 118th, (¹⁸⁰) and the number of procedures involved fell from 21 to 18, while the cost fell from 294 % of per capita income to 223 %. Its ranking property registration improved by six places (to 62nd); the number of procedures declined by one to seven; and processing time fell to 14 days.

In the 2014 country-specific recommendations the Council (¹⁸¹) urged Bulgaria to improve the quality and independence of the judicial system and to fight corruption more effectively as Bulgaria has made only limited progress in these areas.

Major improvements to help entrepreneurs could be made in resolving insolvency. A one place rise to 92th position in Doing Business 2014 is most likely due to a slight improvement in the recovery rate, at 32.6 cents to the dollar, from 31.7 the previous year. The time taken is still 3.3 years and it still costs 9% of the estate.

^{(&}lt;sup>178</sup>) See "Assessment of the 2014 national reform programme and convergence programme for Bulgaria", SWD(2014)403

^{(&}lt;sup>179</sup>) Expert group set in February 2014, and seminar on Impact assessment practices organised on17/6/2014.

^{(&}lt;sup>180</sup>) Doing Business 2014

⁽¹⁸¹⁾ Council Recommendation on Bulgaria's 2014 national reform programme and delivering a Council opinion on Bulgaria's 2014 convergence programme.

3.2.7 Conclusions

Manufacturing should become more efficient and shift to products with higher value added, e.g. by processing rather exporting raw materials, and to enable genuine synergies between businesses and research institutions and academia. The level of innovation in the value chain is low and so is support for innovation activities, including patent registration.

Stakeholders, including the government, businesses, and research institutions need to find effective mechanisms to agree on priorities, coordinate the required policies, and take action on education, on supporting innovation, and on research priorities to steer the economy towards activities with higher value added.

Due to insufficient administrative capacity, progress in improving public administration has been slow, and in some areas non-existent. The government has identified full introduction of e-government services as the key to reducing the administrative burden on companies and the public; those already developed have to become interoperable. However, so far no results have been delivered.

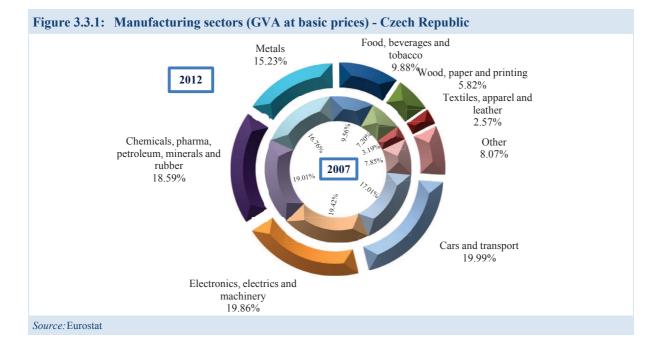
Local government reform has not progressed and it seems that central support would be needed in many areas, in particular for public procurement, and for building e-government services. Corruption perceptions remain high and increased use of egovernment would help to combat corruption at all levels of administration.

To ensure investment in innovation and growth, further improvements in access to finance will be needed, and alternatives to bank lending should be further explored.

Competition in the transport and energy sectors would be facilitated by restructuring the state-owned companies. This would promote private investment, growth and employment. In addition, energy efficiency could be improved considerably.

3.3 Czech Republic

	Czech	Republic
		Position compared to the weakest (=0) and the best (=1) Member State (either 2007 or the latest available) 0 * For full explanation, see the methodological annex 1
Labour productivity	Labour productivity per hour worked (EU-27=100; 2013)	□ latest available -5 years ■ latest available
prod	Labour productivity per person employed in manufacturing (1000 PPS; 2013)	=EU latest available
	Total exports as a % of GDP (2013)	
Exports	Knowledge-intensive exports (% of total exports; 2012)	
<u> </u>	Exports of environmental goods as % of all exports of goods (2013)	-
_	Innovation Union Scoreboard (2013)	
Innovation	R&D performed by businesses (% of GDP; 2012)	
	Non-financial high-growth enterprises as % of all enterprises (2012)	N.A. (2007)
Industr	y Manufacturing GVA as % of total GVA (2013)	
ce s	SME Access to Finance Index (SMAF; 2012)	
Access to finance	Year-on-year growth of loans to non-financial corporations (%; Q1 2014)	
<u>~</u>	Investment in equipment as % of GDP (2011-13)	
Investment and skills	Employment in knowledge-intensive activities (manufacturing and services) as % of total employment (2012)	
stment	% of employees in manufacturing with high educational attainment (2013)	
Inve	Tertiary graduates in mathematics, science and technology per 1000 of population aged 20-29 (2012)	
۶.,	Energy intensity in industry and the energy sector (kg oil eq. / euro GVA; reference year 2005; 2012)	
Energy, raw materials	CO2 intensity in industry and the energy sector (kg CO2 / euro GVA; reference year 2005; 2012)	
Ene	Electricity prices for medium-sized enterprises excluding VAT (euro per kWh; 2nd half of 2013)	
nd ts,	OECD indicators of product market regulation / services (2013)	
ss to marke structure a services	Trade integration in the single market (2013)	
Access to markets, infrastructure and services	Satisfaction with quality of infrastructure (rail, road, port and airport) (1=underdeveloped / 7=extensive and efficient by int'l standards; 2012-13)	
⊴.⊒	% of broadband lines with speed \geq 30 Mbps (2014)	
ration s t	Time required to start a business (days; 2013)	
ic administra and business environment	Number of hours needed to comply with tax return rules across the EU (2013)	
Public administration and business environment	Legal and regulatory framework (0= neg. / 10=pos.; 2014)	
Pu	Business environment score (1= best and 0 = worst; 2012-13)	
Note:	Early data for "% of broadband lines with speed \geq 30 Mbps" refer to 201	1.



3.3.1 Introduction and performance

The Czech economy is slowly coming out of a period of negative growth. The manufacturing sector is still one of the most important sectors in the economy, representing 24.7 % of value added in 2012. In fact, the manufacturing sector's share increased during the crisis. (182) Labour productivity per hour worked in 2012 declined when compared to 2008 but labour productivity per person employed in manufacturing improved somewhat during the same period. Exports as a percentage of GDP stood at 78.6% in 2013, an increased when compared to the 64.4% of GDP recorded in 2008. Even though R&D carried out by business increased to 1.01% of GDP in 2012, innovation in the Czech Republic remained below the EU average according to the innovation union scoreboard.

3.3.2 Access to finance and investment

Access to finance

The Czech Republic suffers from a lack of programmes providing early stage equity financing to SMEs. The government's planned seed and venture capital fund worth EUR 53 million and co-financed by the private sector was due to be operational by the end of 2013. However, the official projects of the seed/venture capital fund have been stalled and will

be revisited during the 2014-2020 programming period. In the meantime, the government is looking into possibilities of seed fund realisation. A new law on investment companies and investment funds, (¹⁸³) in force from 1 January 2014 may encourage more involvement from private investors in funding SMEs in their different stages of development.

Investment

CzechInvest is the main administrative body aiming at attracting FDI. The biggest investments in recent years have been channelled to the automotive and mechanical engineering sectors. The investment incentives act, which was amended in 2012, is thought to have had a positive effect in attracting FDI, notably due to the extension of a reduced corporate tax rate to a 10 year period from the five year one applied previously. However, while gross fixed capital formation in real terms increased slowly in 2010 and 2011, it decreased by 4.5 % in 2012 and 3.5% in 2013. It is expected to rebound again in 2014 and 2015. (¹⁸⁴)

^{(&}lt;sup>182</sup>) Eurostat manufacturing production indexes

^{(&}lt;sup>183</sup>) No 204/2013 Coll.

^{(&}lt;sup>184</sup>) Eurostat and 2014 Spring European Economic Forecasts

3.3.3 Innovation and skills

Innovation

The Czech innovation system suffers from certain weaknesses such as the weak link between business and academia and the need to improve the relevance of its science and technology output.

The Czech economy is a dual economy, made up of a number of foreign affiliates, who carry out most business R&D, and a large number of domestic SMEs. Increasing the level of innovation carried out by local SMEs remains a challenge. The Czech Republic is currently classified as a moderate innovator, (185) whose innovation performance is below the EU average. However, within this group, it is one of the top performers with the rate of innovation growth being close to the EU average (measuring 1.7 %).

Public sector funding for R&D decreased between 2008 and 2012, measuring 36.8 % of gross domestic expenditure on R&D in 2012. (186) Nonetheless, it still remains above the EU average. Business expenditure as a source of funding of R&D also declined over the same period, totalling 36.4 % of gross domestic expenditure on R&D in 2012. However, business related R&D expenditure as a percentage of GDP has been steadily increasing from 2008 to 2012 increasing from 0.76 % in 2008 to 1.01 % in 2012. Still, this has not yet translated into a visible improvement of the quality and relevance of scientific output in the form of the patents numbers and worldwide publications. (¹⁸⁷)

There are a number of R&D programmes which continue to be implemented by the Czech Technology Agency. Amongst them is the new Epsilon programme, launched in December 2013, which aims to strengthen the competitiveness of Czech enterprises by funding applied research and experimental development projects with a high potential for application in new products, production

processes and services. Competence centres continue to play an important role in encouraging partnerships between public and private sectors in R&D. These are being reinforced through a second call for competence centres in which several new centres have been chosen for support. There has also been an extension of the R&D tax incentive which will allow research activities to be outsourced by businesses to public research institutions as from 1 January 2014. Also, an international co-operation strategy on R&D is to be finalised by the end of 2014 with the aim of enhancing Czech participation in international R&D organisations and improving networking of R&D programmes in the EU and third countries. The government is currently preparing a new system of evaluation of results of research organisations and their funding with its implementation foreseen for 2016. It is also preparing a new methodology to evaluate R&D programmes but the preparation is rather slow.

Better links between industry and universities, good use of the relevant operational programmes for structural funds and ensuring the commercialisation of R&D into economic activity are the main challenges for the Czech Republic.

Skills gaps

The quality of compulsory and tertiary education is currently an issue. While the share of the population aged 30-34 having attained tertiary education level is increasing, it is still significantly below the EU average in 2013, measuring 26.7 % compared to the EU average of 36.8 % in 2013. International surveys also point to concerns about the labour market relevance of tertiary education. There has been a sharp increase in the number of students studying at tertiary level in recent years which, combined with weak and formalistic accreditation rules, has resulted in a surge in varying quality tertiary education institutions and declining quality of tertiary students. Skills shortages, particularly in the manufacturing sector, are also an issue as students tend to follow non-technical subjects. In fact, the Czech Republic has the second highest level of skills and labour shortages in European manufacturing companies. (188)

From 1 January 2014, tax credits for companies wanting to co-operate with training institutions became part of the Income Tax Act. The public

 $^(^{185})$ Innovation Union Scoreboard, European Commission 2014: http://ec.europa.eu/enterprise/policies/innovation/files/ius/iu s-2014 en.pdf Eurostat GERD

⁽¹⁸⁷⁾

Only 5.6% of Czech scientific publications score amongst the 10% most cited publications worldwide (EU average being 11%); number of patents produced remains low by international standards, reaching only 0.84 patents per billion purchasing power standard (EU average 1.98) Commission Staff working document assessing 2014 NRP and Convergence Programme SWD(2014) 404

⁽¹⁸⁸⁾ ECS and Eurostat EUROIND database, 2009

employment services are also taking measures to train the unemployed according to the current skill shortages. Given these shortages, further measures to promote training amongst young people in relevant fields and in view of the needs of the labour market would be beneficial.

3.3.4 Energy, raw materials and sustainability

The energy intensity of the Czech Republic has been declining over recent years but still remains high when compared to other EU countries, even if corrected for the high proportion of industries with high energy intensity. Surveys shows that over half of Czech firms consider electricity infrastructure, pricing and provision as a major business constraint. (¹⁸⁹) However, electricity prices for medium-sized enterprises have declined somewhat from 2008 to 2012.

The Czech Republic's attempts to improve energy efficiency consist largely of projects under the EU's operational programmes. For the 2007-2013 period these funds have been used to improve energy efficiency through upgrading existing energy production facilities, reconstruction of distribution facilities for electricity and heat, and improving the thermal properties of buildings, and energy savings in industrial processes. After a significant delay, in 2013 the Czech Republic notified to the Commission its indicative national energy target. In May 2014, the third National Energy Efficiency Action Plan was submitted to the Commission for assessment.

3.3.5 Access to markets, infrastructure and services

Internal market

The vast majority of trade is carried out in the EU market. The EU accounted for 73 % of all trade in 2012 with the majority of this being in the euro area. Exports to the EU accounted for 80 % in 2013 while imports from the EU market were 68 % in 2013. The share of high-tech exports as a percentage of total exports represented 16.2% for the same period. Czech

exports tend to be used as an intermediate input in the German supply chain.

Internationalisation

The Czech Republic is a very open economy. Exports of goods and services accounted for 78.6 % of GDP in 2013. (¹⁹⁰) Exports as a percentage of GDP were high in 2010 and 2011 measuring 66.6% and 72.9%, respectively. A hike in the export to GDP ratio was recorded in 2012 (78%) and 2013 (78.6%), and a further increase in the ratio can be expected again in 2014 as exports are expected to pick up on the back of the weakened koruna and a gradual acceleration in economic growth of the country's main trading partners.

The Czech Export Strategy 2012-2020 is the underlying framework guiding export policy. One of the main goals is to diversity exports. Twelve priority countries were identified for the first five years of implementation of the strategy, amongst them Brazil, China and India.

The Ministry of Industry and Trade (MIT), together with the CzechTrade agency, provide support services to Czech exporters. The main change in the structure of services offered as compared to 2012 is that these services are now divided into three main packages. There is a basic package designed especially for first time exporters; a business package for companies that are already exporting; and a plus package which provides services of a long-term nature and which puts exports in touch with representatives of foreign networks of the MIT. There was significant increase in enquiries about these services in 2013. The number of SMEs exporting outside the EU between 2009 and 2011 has increased. (¹⁹¹)

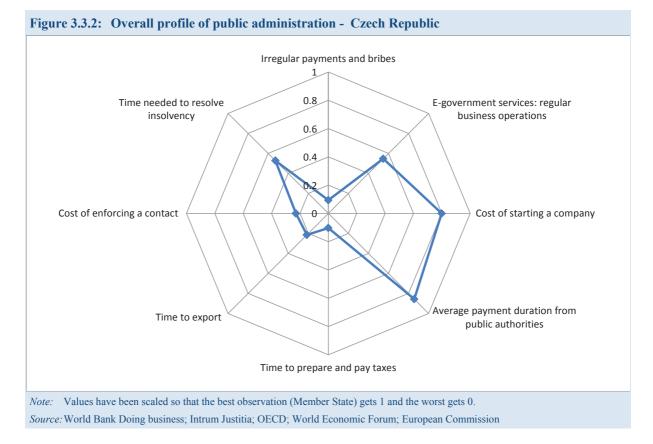
Business services and network industries

The Czech Republic has one of the highest levels of regulated professions in the EU and the regulation of professional services is stricter than the EU average. The Czech authorities announced a reform of the regulatory framework to reduce the number of regulated professions in 2012. Since the reform was launched in 2012, the process has been sluggish with only a limited number of professions being opened.

^{(&}lt;sup>189</sup>) OCED Economic Survey Czech Republic 2014, p69

^{(&}lt;sup>190</sup>) Eurostat

^{(&}lt;sup>191</sup>) Eurostat



Competition in the electricity market is also constrained as it tends to be dominated by incumbents who hold licences for electricity distribution and electricity trading. With respect to the gas market, since the opening of the market in 2007, there have been a significant number of gas suppliers and importers competing in the market.

Infrastructure

Infrastructure in the Czech Republic suffers from a number of challenges. This includes a relatively underdeveloped transport infrastructure and insufficient investment in maintenance and reconstruction of the transport network. The railways tend to suffer from a lack of competition due to regulation, operational barriers and limited public tendering of public service contracts. Moreover, national public funding on transport infrastructure has been decreasing in recent years with EU funding being the main source of funding for transport infrastructure. A strategic document, the Transport Policy for 2014-2020, was adopted in June 2013 along the Transport Sector Strategies that sets the medium and long term vision for transport development, also in regard to use of funds from operational programmes.

3.3.6 Public administration and business environment

Entrepreneurship and the SBA

The business environment in the Czech Republic faces a number of challenges. According to international surveys, some of the main challenges are obtaining construction permits, protecting investors and enforcing contracts (¹⁹²) and improving ties between the business sector and academia.

The over-riding International Competitiveness Strategy had plans to improve competitiveness. However, in December 2013, the government reviewed this strategy following poor results in competitiveness indicators. This revised strategy will now focus on tackling three main issues, namely infrastructure, institutions and innovation.

With respect to the Small Business Act (SBA), the Czech Republic performs more or less on par with the EU average in the areas of entrepreneurship, access to finance, single market and skills/innovation but considerably underperforms in the areas of second

^{(&}lt;sup>192</sup>) World Bank Doing Business Report 2014

chance, think small first, responsive administration, state aid and public procurement and internationalisation. (¹⁹³) SMEs account for the vast majority of businesses in the Czech Republic, representing approximately 99.8 % of all companies corresponding to 68.5 % of employees and 54.9 % of value added. Given their significance, a specific SME strategy for 2014 and beyond has been adopted, which will also provide guidance for the use of European Structural funds for 2014-2020.

Administrative modernisation

The Czech Republic suffers from a number of problems in relation to public administration, in particular inefficiency and issues relating to corruption are still of concern. In fact, Czech Republic has received Country Specific Recommendations on this over the past years. Moreover, the Czech Republic is still one of the worst performers in relation to diversion of public funds and irregular payments and bribes. (¹⁹⁴)

There has been limited progress on the implementation of the anti-corruption strategy for 2013-2014 and the Public Servants Act has not yet been adopted. With respect to the former, the strategy itself provides a detailed assessment of corruption and covers a wide range of policies and measures but in a rather fragmented way without a clear longer term vision. With respect to the latter, a draft law is currently under discussion in the parliament.

Within the framework of the European Structural Funds programming period 2014-2020, the government is working on a strategy on public administration. This will include a framework for the development of public administration beyond 2014 and measures in the area of e-government. The former aims at increasing the efficiency of public administration and transparency in the funding while the latter aims at broadening the e-government usage. In particular, it aims to have 85 % of all submissions to government done in electronic form by 2020. If implemented effectively, this will be particularly beneficial given that currently the Czech Republic ranks below the EU average, on user-centricity of egovernment services and transparency of e-government services. (¹⁹⁵)

Reducing administrative burden

According to business surveys, some of the main problems encountered by businesses relate to protecting investors, lengthy and costly procedures in paying taxes and, enforcing contracts. The World Economic Forum's 2013-2014 Global Competitiveness Report highlights corruption and inefficient government bureaucracy as the two main problematic factors for doing business. The EU Anti-Corruption Report 2014 also shows that the amongst the EU Member States, the Czech Republic has the highest perception of corruption in the business environment and problems of patronage and nepotism when doing business, at 71 % and 69 %, respectively. The OECD Product Market Regulation database also highlights the excessive complexity of regulatory procedures and the above average administrative burden imposed on start-ups. On a positive note, a recent act on public registers of legal and natural persons will enable faster registration of entities into the commercial registry and other related registries while government is preparing a recodification of civil procedural law which aims at significantly speeding up court proceedings. In addition, a new Act on Commercial Corporations, in force since January 2014, abolished the minimum capital requirements for a limited liability company. An amendment to the trade licensing act will also abolish the necessity for businesses to submit documents repeatedly. Moreover, in 2013 an environmental audit project was set up with the objective of reducing unjustified administrative and financial burden of entities in relation to environmental legislation.

Frequent changes in legislation are another cause of concern for businesses. A pilot project was undertaken in three ministries concerning common commencement dates whereby legislation affecting businesses would only be enacted on two dates, (1 January and 1 July), in an effort to decrease uncertainty for businesses. However, the project will now only be extended across other ministries on a voluntary basis.

^{(&}lt;sup>193</sup>) Small Business Act Fact Sheet Czech Republic 2013

 ⁽¹⁹⁴⁾ World Economic Forum – Global Competitiveness Report (2010-2011; 2013-2012)

^{(&}lt;sup>195</sup>) European Commission, e-Government Benchmarking Reports 2012, 2013

Facilitating tax payments

Tax rates and regulations are two main concerns for doing business (¹⁹⁶) while surveys point to the significant amount of time it takes for businesses to comply with tax returns. (¹⁹⁷) It is estimated that it takes 413 hours to comply with taxes as compared to the OECD average of 173 hours. While this has been reduced over recent years, and the electronic system for submitting tax returns has improved, it is still one of the highest in the EU. The establishment of a single tax collection point to centralise the procedural aspect of paying taxes for taxpayers, originally foreseen for 2015 was abolished. Its introduction may have reduced the administrative burden for businesses. Simplifying the tax system would help to improve the business environment.

3.3.7 Conclusions

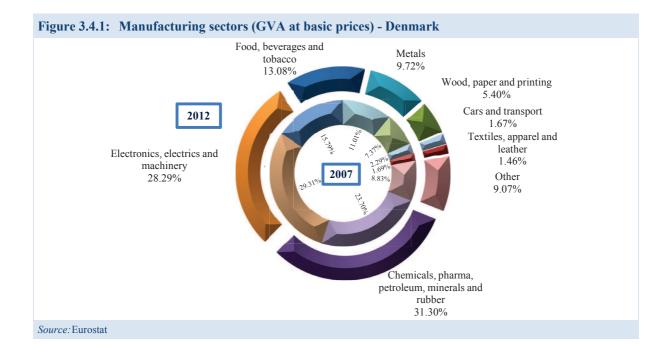
The Czech economy is coming out of a period of recession with an export-led recovery. It continues to have a strong manufacturing sector compared to other EU Member States. However, there are key challenges, including reducing administrative burdens on business, facilitating more user-friendly tax compliance, providing a less bureaucratic public administration in which to operate, improving infrastructure, improving links between industry and universities to ensure commercialisation of R&D, improving energy efficiency and matching the skills of the workforce with the needs of businesses.

^{(&}lt;sup>196</sup>) World Economic Forum's Global Competitiveness Report 2013-2014

^{(&}lt;sup>197</sup>) World Bank Doing Business Report 2014 and PwC Paying Taxes Report 2014

3.4 Denmark

	Denmark				
		Position compared to the weakest (=0) and the best (=1) Member State (either 2007 or the latest available) 0 * For full explanation, see the methodological annex 1			
A,					
Labour oductivit	Labour productivity per hour worked (EU-27=100; 2013)	latest available -5 years latest available			
Labour productivity	Labour productivity per person employed in manufacturing (1000 PPS; 2013)	= iatest available			
	Total exports as a % of GDP (2013)				
ts	Total exports as a 76 of ODF (2013)				
Exports	Knowledge-intensive exports (% of total exports; 2012)				
	Exports of environmental goods as % of all exports of goods (2013)				
	Innovation Union Scoreboard (2013)				
tion					
Innovation	R&D performed by businesses (% of GDP; 2012)				
=	Non-financial high-growth enterprises as % of all enterprises (2012)	N.A. (2007)			
Industr	Wanufacturing GVA as % of total GVA (2013)				
•••••					
Access to finance	SME Access to Finance Index (SMAF; 2012)				
Pin Act	Year-on-year growth of loans to non-financial corporations (%; Q1 2014)	N.A.; N.A. (2009)			
a	Investment in equipment as % of GDP (2011-13)				
d skil	Employment in knowledge-intensive activities (manufacturing and services)	,			
Investment and skills	as % of total employment (2012)				
estme	% of employees in manufacturing with high educational attainment (2013)				
Inv	Tertiary graduates in mathematics, science and technology per 1000 of population aged 20-29 (2012)				
	Energy intensity in industry and the energy sector				
Energy, raw materials	(kg oil eq. / euro GVA; reference year 2005; 2012)	<u>,</u>			
nater	CO2 intensity in industry and the energy sector (kg CO2 / euro GVA; reference year 2005; 2012)	i			
	Electricity prices for medium-sized enterprises excluding VAT (euro per kWh; 2nd half of 2013)				
	OECD indicators of product market regulation / services (2013)				
kets, and					
Access to markets, infrastructure and services	Trade integration in the single market (2013)				
Access to markets, infrastructure and services	Satisfaction with quality of infrastructure (rail, road, port and airport) (1=underdeveloped / 7=extensive and efficient by int'l standards; 2012-13)				
Ac	% of broadband lines with speed \geq 30 Mbps (2014)				
Public administration and business environment	Time required to start a business (days; 2013)				
lic administra and business environment	Number of hours needed to comply with tax return rules across the EU (2013)				
lic ad and b envire	Legal and regulatory framework (0= neg. / 10=pos.; 2014)				
Publ	Business environment score (1= best and 0 = worst; 2012-13)				
	Business environment score $(1 - 0est and 0 - worst, 2012-13)$				
<i>Note</i> : Early data for "% of broadband lines with speed \ge 30 Mbps" refer to 2011.					



3.4.1 Introduction and performance

Denmark is a small but open and wealthy economy. After contracting by -0.4 % in 2012, GDP grew by 0.4 % in 2013, driven mainly by domestic demand, particularly investments and public consumption. At the same time, imports outperformed exports, which meant that net exports had a detrimental effect on growth. The Commission's spring 2014 forecast indicates that the economy is recovering, with real GDP growing by 1.5 % in 2013 and 1.9 % in 2014.

Danish manufacturing exports mostly comprise machinery and transport equipment, chemicals and food and beverages, with a focus on the higher value segments of these markets. Exports of high-tech, higher value-added products have continued to grow, but growth is slower than in many competing countries. Graph 3.4.2 presents a similar situation as last year for the three largest knowledge-intensive Danish manufacturing sectors. The largest is chemicals, pharmaceuticals, petroleum and rubber (28.6 %), followed by electronics, electric and machinery (27.8 %) and the traditional sector of food, beverages and tobacco (15.5 %). The main differences compared to 2008 are that chemicals and pharmaceuticals have expanded, mostly at the expense of metals.

3.4.2 Access to finance and investment

Access to finance

The financial sector remains stable and banks are well capitalised. Danish small businesses regard conditions for accessing finance as worse than the pre-crisis level, as banks seek to compensate for the higher risk of SMEs. However, conditions for obtaining credit in the pre-crisis years were relatively loose, with financial institutions putting less emphasis on solvency and other indicators of the creditworthiness of companies. (198) The latest available data (2011) puts the rate of rejected loan applications for SMEs at 20%, which is higher than the EU average (15%). National survey data after 2011 showed recent improvements in companies' assessment of their access to credit. (¹⁹⁹) SMEs have credit costs that are 52 % higher than large businesses. However, this is mainly due to the relatively low cost of credit for large businesses in Denmark. For loans of less than EUR 1 million, the average cost for credit in Denmark was around the Eurozone average in 2013 (excluding repurchasing agreements).

⁽¹⁹⁸⁾

http://www.nationalbanken.dk/da/publikationer/Docum ents/2012/11/WP81.pdf. (¹⁹⁹)

http://di.dk/SiteCollectionDocuments/Opinion/Konjunkt ur/Finansiering%202014Q2.pdf.

The Danish authorities have made significant efforts to improve access to finance by SMEs and entrepreneurs over the past year by: providing loans of more than EUR 0.3 million to entrepreneurs who lack the collateral for obtaining finance in the private sector; and adopting a bill aimed at improving the Danish market for corporate bonds and securities.

Over the past year, the European Investment Fund (EIF) and the Danish state-backed investment fund, the Growth Fund (Vækstfonden), have signed two agreements aimed at supporting small and medium-sized enterprises (SMEs) and micro-enterprises. The first agreement is a direct guarantee enabling the Growth Fund to provide a subordinated loans totalling EUR 126 million to start-ups. The second agreement facilitates access to microfinance.

SMEs with financial problems tend to have lower capital than larger firms. This lack of own capital is seen as one of the main future challenges. $(^{200})$

The EIF and Danish Growth Capital (Dansk Vækstkapital) support the Danish market for venture capital by investing in Danish venture funds. Danish Growth Capital is a fund-of-funds with capital of DKK 4.8 billion (EUR 640 million) from Danish private pension companies. It also makes direct venture investments in companies with particular growth potential.

Investment

Following the crisis, decreases in investment were recorded in Denmark as well as in Sweden and Belgium.

State initiatives such as the Market Development Fund (Markedsmodningsfonden), the Innovation Incubator Scheme (Innovationsmiljøerne), the Green Transition Fund (Grøn Omstilllingsfond) and Danish Growth Capital, together with investments by The Growth Fund in funds and particular lending schemes, all contribute to supporting investment in entrepreneurs and SMEs in Denmark.

3.4.3 Innovation and skills

Innovation

Based on 2013 data, Denmark outranks all other EU countries in fields such as skills, innovation, internationalisation, responsive administration and second chance. However, it lags behind in entrepreneurship, especially in regard to media coverage for entrepreneurship, the self-employment rate and entrepreneurial intention. (²⁰¹)

Denmark is one of the EU leaders in ecoinnovation. (²⁰²) Moreover, the Danish cleantech clusters offer innovative solutions for the sustainable use of natural resources.

Start-ups targeting highly innovative sectors require substantial budgets to invest in research and innovation.

The Innovation Union Scoreboard 2013 (²⁰³) confirmed Denmark's position among the 'innovation leaders' of the EU together with Finland, Germany and Sweden. The latest available data indicates top values for most indicators that measure the innovative performance of SMEs. For example, 38 % of Danish SMEs have introduced process or product innovation while approximately 40 % are using internal research capacities, innovative marketing and organisational strategies. However, these firms' sales revenues do not fully reflect investment in innovation. (²⁰⁴)

Sales revenues of SMEs that sell their products online are nearly twice the EU average. Furthermore, the sales revenues of SMEs participating in EU-funded research and those purchasing their prime materials online are also higher than the EU average.

Skills

The number of Danish enterprises that provide training to their employees is almost double the EU average. The situation is even better for employee participation rates in education and trainings (more than triple). $(^{205})$

(²⁰⁴) SBA Fact Sheet 2013.
(²⁰⁵) SBA Fact Sheet 2013.

^{(&}lt;sup>200</sup>) <u>http://www.evm.dk/english/news.</u>

^{(&}lt;sup>201</sup>) <u>http://ec.europa.eu/enterprise/policies/sme/facts-figures-</u>

analysis/performance-review/index_en.htm.

^{(&}lt;sup>202</sup>) <u>http://www.eco-innovation.eu/images/stories/Reports/EIO</u> <u>Annual Report 2012.pdf</u>

 ⁽²⁰³⁾ Innovation Union Scoreboard 2013, http://ec.europa.eu/enterprise/policies/innovation.

Even if Denmark's education system does not lack resources, (²⁰⁶) findings by the Danish Productivity Commission (Produktivitetskommissionen) show that education outcomes could be improved. (²⁰⁷) PISA results, in particular, are below the OECD average.

Denmark is one of the seven Member States that achieved the Europe 2020 15 % target to reduce the percentage of 'low achievers in reading'. $(^{208})$

Denmark is also one of the eleven Member States that have reached the Europe 2020 target to have at least 40% of 30-34 years old with tertiary education.

The Productivity Commission recommends that students should be given incentives 'to seek education and training with ample job opportunities and high income', in order to provide the necessary skills to enhance Danish competitiveness.

3.4.4 Energy, raw materials and sustainability

Energy use and prices

Denmark has set an ambitious national target for renewable energy sources, which are to constitute 50 % of electricity generation by 2020, thus exceeding even the EU target of 27 % renewable energy sources to be achieved by 2030. (209) This ambitious target will have a significant effect on the Danish current energy mix, which incorporated 26 % renewable energy sources as early as 2012.

To achieve this goal, Denmark is planning to improve interconnection capacity with neighbouring countries, in order to incorporate increased amounts of renewable energy sources and to maintain a high level of security of supply. Consumer flexibility is another, albeit smaller, contributor to the integration of high amounts of fluctuating renewable energy. Activation of consumer flexibility requires presently hourly settlement and smart metering. In 2013 the government decided on a full roll-out of smart meters in Denmark by 2020. Currently, more than half of consumers, covering around 75 % of the total electricity consumption, are being remotely metered Denmark continues to be a net exporter of gas and, according to latest estimates, is expected to remain so until 2025. This will facilitate the development and integration of renewable energy sources in the energy system and help to achieve the 2030 renewable energy sources target, as gas is fuel that is well-suited to the back-up generators needed in the transition to a low carbon society.

During the period between 2008 and 2012, Danish households paid one of the highest electricity prices in the EU, mostly on account of taxes and levies. However, retail industrial prices actually decreased over the period in question. $(^{211})$

Environmental sustainability

Although Denmark has made considerable efforts on sustainability, also improving resource efficiency, challenges remain in the area of waste management.

Denmark faces the challenge to reduce the incineration of municipal waste and increase its recycling, which would be more resource efficient, and scale up its recycling industry.

In some areas of the country, there are incentive systems to limit waste production and encourage participation in sorted waste collection. Consideration should be given to extending this initiative throughout the country.

Denmark generates the highest amount of municipal waste in the EU. It ranks above other EU countries when it comes to the proportion of incinerated waste (54 % in 2012). According to Eurostat, the resource productivity of Denmark is in the EU middle range. There is potential to increase resource productivity.

In October 2013, the Danish government presented a new resource strategy — 'Denmark without waste. Recycle more – incinerate less' — targeted at waste management. The Government also intends to present a strategy on waste prevention.

 ^{(&}lt;sup>206</sup>) Denmark has the highest spending in public expenditure on education in the OECD, as a percentage of GDP.

 ^{(&}lt;sup>207</sup>) <u>http://produktivitetskommissionen.dk/publikationer</u>.
(²⁰⁸) http://europa.eu/rapid/press-release_IP-13-1198_en.htm.

 ⁽²⁰⁹⁾ COM/2014/015 final: A policy framework for climate and energy in the period from 2020 to 2030.

^{(&}lt;sup>210</sup>) Smart Grid Strategy, Danish Ministry of Climate, Energy and Building, May 2013.

http://ec.europa.eu/energy/doc/2030/20140122_swd_pri ces.pdf.

3.4.5 Access to markets, infrastructure and services

Access to markets

One of Denmark's main challenges is the low level of competition on the domestic market and limited presence of foreign competitors in the construction sector, which results in higher prices combined with lower relative productivity growth compared to other EU Member States.

In Denmark the use of national standards for specific construction materials and building process standards creates entry barriers. The Danish Productivity Commission has recommended harmonising national standards in the construction sector with international ones and streamlining municipal building certificates. Consequently, national standards have been scrutinised and the government intends to internationalise and simplify regulation on, for example, building materials and building certificates.

Even if the electricity and gas markets have been liberalised, only a limited number of consumers have utilised their right to change supplier. This situation could be improved through industry schemes that are more friendly towards supplier changes.

In addition, the Productivity Commission has recommended eliminating restrictions relating to retail establishments (²¹²) so as to foster competition in the market and reduce the productivity gap. Proposed measures include more flexible rules on the location of shops, the possibility to establish larger retail outlets and adapting local planning rules to improve competition.

Infrastructure

Denmark has a modern infrastructure with the region's airport hub located in Copenhagen, a well-functioning port and good railway and road connections. Nevertheless, the latest Eurostat data indicates a drop in satisfaction with the quality of infrastructure, as Denmark's gross investment and maintenance expenditure on transport is one of the lowest as a % of GDP. However, there are a number of projects, namely the planned fixed rail/road-link across the Fehmarnbelt including modernisation of the access lines and the already built fixed links

across the Great Belt (within Denmark) and together with Sweden across the Öresund, which are important for transit traffic between Scandinavia and the Continent.

Services

Services are characterised by regulation and business practices that hamper competitiveness. The retail trade is highly concentrated, with the top five retailers covering 90 % of the market. It is characterised by competition problems linked to the low share of foreign-owned companies, high prices and the small number of large retail outlets due to rigid retail establishment rules.

Furthermore, the productivity of the Danish retail sector ranks below the EU average, both in terms of growth and level.

In its final report of March 2014, the Productivity Commission issued recommendations on how growth in the Danish economy can be boosted through improved productivity. The recommendations included increased competition in the domesticallyoriented service sectors, public administration and business environment.

Administrative modernisation

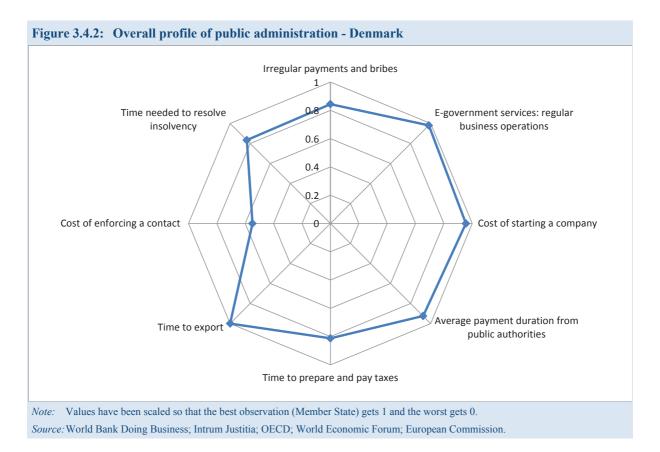
The Danish public administration performs well compared with other EU countries and is one of the most modern in the EU. Composite indicators are above the EU average on government effectiveness, corruption and fraud, business start-ups and licenses, public procurement, tax compliance and administration, and civil justice. (²¹³)

The above Graph 3.4.3 illustrates Denmark's excellence in public administration for competitiveness, using the best and worst performing Member States' indicators as benchmarks. (²¹⁴) Indicators on the time required and the cost involved to start up a company are among the highest. E-government services and bureaucracy indicators also pose a problem.

^{(&}lt;sup>212</sup>) Planning and zoning restrictions for large retail outlets.

^{(&}lt;sup>213</sup>) European Commission, 'Excellence in public administration for competitiveness in EU Member States'.

^{(&}lt;sup>214</sup>) The indicators have been normalised (min value — smallest observed = 0, max value — highest observed = 1). For more details please consult the following report: <u>http://ec.europa.eu/enterprise/policies/industrialcompetitiveness/monitoring-member-states/improvingpublic-administration/files/pa report en.pdf</u>).



The Productivity Commission has proposed new solutions for improving the effectiveness of public administration. They include: the systematic reduction of bureaucracy and simplification of regulation; pursuing broad and flexible collective bargaining agreements in the public sector; and involving private enterprises, collaborators and users in the development of new public services.

Entrepreneurship and Small Business Act (SBA)

Denmark provides a business environment which supports small firms and which benefits from one of the best European business-oriented economies, with very short start-up times and very flexible labour market rules. These facts are also confirmed in the graph above. In order to facilitate the growth of SMEs, the authorities are constantly scrutinising the regulatory framework. Simpler rules and fewer administrative procedures are mainstreamed into national legislation and policies. Ministries and agencies are required to consult business associations and/or organise panels of small businesses during all phases of legislative and policy processes. For example, the 'Virksomhedsforum' (an online forum where SMEs and other businesses lead the way in proposing changes to administration) enables SMEs

to communicate directly with the Danish administration.

The labour market has been applying the 'flexicurity' model that combines flexible hiring and firing rules with a generous social safety net in the form of income compensation in the event of unemployment, lowering the cost of scaling business operations up or down.

However, high taxes and living costs continue to remain a concern for investors. (²¹⁵)

3.4.6 Conclusions

Denmark remains one of Europe's most competitive economies with high-quality infrastructure and modern, flexible labour rules. However, there is scope for improvement in supporting access to finance and increasing competition in the services and construction markets.

In order to further improve the sustainability of the economy, Denmark would benefit from continuing to

 $^(^{215})$

http://www.oecd.org/eco/surveys/Overview_Denmark_2014.pdf.

reduce waste generation and the percentage of waste incinerated, and increase recycling instead.

Even if the Danish public administration is one of the most modern in the EU, further efficiencies could be achieved by increasing e-government services and reducing bureaucracy.