REPORT

The Impact of Regulation of the Road Transport Sector on Entrepreneurship and Economic Growth in the European Union

Prof. Konrad Raczkowski • University of Social Sciences, Poland
Prof. Friedrich Schneider • Johannes Kepler University of Linz, Austria
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Warsaw – Linz – Lyon, February 2017

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Eds.

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Warsaw-Linz-Lyon, February, 2017
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ABOUT THE EDITORS/AUTHORS

Professor Konrad Raczkowski, Ph.D., economist, former deputy Minister of Finance in Poland (2015-2016) and present member of the National Development Council of the President of the Republic of Poland. He is also currently (since 2012) Head of the Institute of Economics at the University of Social Sciences in Warsaw, Poland, where he is a Professor of Economics and Management, and Chair of the Department of Economic Security Management. Professor Raczkowski specialises in the management of economic systems, public finance and the informal economy. Since 2003 he worked in the Ministry of Finance (Poland), and from 2010 he has served as an expert in the Parliamentary Research Bureau of the Chancellery of the Parliament (Poland), various economic organisations, enterprises and international institutions in the EU (2010-2015). In 2016 he was awarded of the President of the Polish Academy of Sciences for outstanding scientific achievements in the field of finance. More on: www.konradraczkowski.info

Professor Friedrich Schneider, Ph.D., Dr.h.c.mult. is Professor of Economics at the Department of Economics at the Johannes Kepler University of Linz in Austria. He is recognized as a leading authority in the field of studies on the shadow world economy. He has conducted research and lectures, among institutions such as the Universities of Yale, Princeton, Virginia, Stockholm, Zurich, Carnegie Mellon and Aarhus. In the years 1997-1999 he was the President of the Austrian Economic Association and in 2005-2008 the President of the German Economic Association (Verein für Socialpolitik). Since 2006 Research Professor at the Department of International Economics, German Institute for Economic Research (DIW Berlin), Germany. Between 2013-2016 Chairman of the Academic Advisory Board of the Zeppelin University, Friedrichshafen, Germany. He has published 78 books and over 200 articles in scientific journals.

Professor Florent Laroche is postgraduated in economics (Ph.D) by the University of Lyon 2 (2014). He started as project manager for the French Railway Industry lobby (2011-2014) and participated to different national commissions for transport policy. The topic of his thesis was specifically focused on the problem of saturation for High Speed Line and the optimal regulation to improve the capacity. Between 2015 and 2016, he realized a postdoc at the University of Antwerp (Belgium) on the topic of the national and European regulation for the rail freight market. Since 2016, he is member of the Transport Urban Planning Economics Laboratory and assistant professor at the university of Lyon 2 (France). He is specialist in transport economics and makes research on transport regulation, infrastructure investment and new mobility. He also worked as study manager (2009) and engineer (2010) in the National Centre for Scientific Research (France).
INTRODUCTION

Entrepreneurship and further economic growth of the European Union should be a joint response of the member states to the ongoing changes in the international geoeconomic setup, which poses global threats. EU member states need to understand that the contemporary response to these threats is not to adopt isolationist positions or, on the other hand, ones that monopolise markets and ration competitive advantages, under the banner of harmonisation, but rather to reach a political and economic consensus based on a "win-win" strategy. Thus, reconciling various contradictions between EU member states is a necessary condition where the underlying economic cause of those contradictions is a different purchasing power parity and the respective states' different competitive position. Only then will it be possible to truly achieve the European goals, which would be reflected, in practice, by an intelligent and sustainable growth that favours social inclusion.

As common transport policy is one of the core elements of the EU’s policy, with the nominal volume of logistics services sector estimated at 14% of the EU GDP and employing more than 11 million people in all EU member states, it is crucial to give special attention to this sector, due to the extremely broad and risky interpretation and content of the provisions of the minimum wage laws MiLoG (Germany) and Loi Macron (France). These laws introduce incommensurable administrative burdens and interfere with economy under the pretext of the alleged fight against social dumping. Their wording seems to be directly in conflict with Article 56 and Article 58 of the Treaty on the Functioning of the European Union, violating the principle of freedom to provide services.

The legislation adopted in this respect in Germany and France, which in fact provides for lack of harmonised regulation in the road transport sector, fits squarely with building a two-speed Europe and may cause an increase in undeclared work, which results in the shadow economy in EU growing by over EUR 1.4 billion/year. Indeed, currently the EU sector of road freight transport as a whole encompasses over 563.6 thousand companies, which, depending on the country, generate from 0.7% to 9.3% GDP, with the average share of revenues from road freight transport in total revenues from transport amounting to 22.6%. Considering that according to International Road Transport Union (IRU) data, there is a shortage of drivers in road transport in the European Union, and according to forecasts by Fraunhofer Institute for Logistics – IML, in the upcoming 10 years Germany alone will be 150 thousand truck drivers short, all restrictions imposed on the industry will have far-reaching consequences for the European division of labour and for increasing the asymmetry in various economy segments.

In the light of the above, we guess that the disruption of the European road transport system, which can result from changing the fundamental values and freedoms that are the core of the European Union functioning would have adverse effect on the Community’s growth and could lead to further isolation and protectionism in other community-wide policies, creating separate entities rather than community value.

The report presented aims to answer, from the economic perspective, the question of how the change of local law in Germany and France, regarding minimum hourly wage will impact such an important sector that is road truck transport.

The point of departure for the analysis was the aforementioned data on road truck transport. Moreover, the available reports of international organizations that investigate this phenomenon were also used in the analysis.

The report also used the available and the most comparable data from European statistics, and their basic source was Eurostat statistical databases.

The report was divided into four principal parts. Section 1 provides an overview of the current state of the road sector in Europe. Section 2 describes the new regulations implemented by France and Germany. Section 3 presents the methodology used to develop the analysis. Finally, section 4 gives conclusions and recommendations.

We trust that the Report that we are presenting will provide a contribution to the further and much needed development of the European Union.

Prof. Konrad Raczkowski
Prof. Friedrich Schneider
Prof. Florent Laroche

Warsaw, Linz, Lyon, February 2017

1. ROAD TRANSPORT SECTOR IN EUROPE – CURRENT STATUS AND GROWTH PROSPECTS

1.1. European legislative background

Even though the foundations of the transport policy were among the first areas to be initiated as part of the European Economic Community, the voluntary establishment of the transport policy did not come about through agreement of the Member States but rather through an order imposed by the judgment of the European Court of Justice of May 1985, which found the Council of the European Union guilty of not developing a transport policy for years. This way by 1992 the foundations were laid for the EU transport policy, establishing, among others, in the Treaty of Maastricht, Trans-European Networks and the duty to open up internal transport markets to competition. In addition, in 2011 the European Commission published the so called third White Paper entitled “Roadmap to a Single European Transport Area” (the first one was published in 1992 and the second one in 2001), identifying the essential and necessary actions to remove transport barriers in Europe and build integrated transport networks. The main pillars of the EU transport development strategy are:

- a well functioning internal market (which requires harmonising and limiting the number of redundant regulations to decrease administrative burden and increase the global competitiveness of companies operating in EU countries);
- fair competition and employee rights (where different national initiatives oriented towards social protection of employees may have a negative impact on the entire internal market and contradict the principle of fair business conditions for transport operators);
- decarbonisation (in performance of the global COP21 United Nations climate change agreement concluded in Paris on 12 December 2015 – by limiting CO2 emissions, mainly from trucks, by increasing infrastructure efficiency and reducing operating costs for companies),
- digitalisation (by introducing standardisation and interoperability, especially as regards electronic toll collection).

1.2. Market dynamic and traffics

According to the latest Eurostat data (2013), the EU road transport has more than 2.9 million employees, and, as per road transport statistics methodology based on the Council Regulation (EC) No 1172/98 of 25 May 1998 on statistical returns in respect of the carriage of goods by road, since 2014, there has been a visible increase in road freight carriage and, as it seems, this may mean coming back to the pre-2008 crisis trend (fig. 1 and 2).

Fig. 1. Impact of the road freight transport in EU in the years 1995-2014.

Source: Statistical pocketbook 2016, Mobility and Transport, European Commission

Annual average growth periods of road transport (tkm) was 1.1% between 1995-2014 while in 2013-2014 there was a clear increase – from 0.6% (between 2000-2014) to 1.4%, which reflects well on the new uptrend.

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Fig. 2. Road freight transport in EU in the years 2008 to 2015 (in thousand tons)

Source: own based on Eurostat “Goods transport by road” and statistical data from the German Statistical Office.

Table 1. Road freight transport in UE Member States in 2013 compared to GDP

<table>
<thead>
<tr>
<th>State</th>
<th>GDP (EUR millions)</th>
<th>Road freight transport</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Turnover (EUR millions)</td>
<td>Volume of carriage (thousand tons)</td>
</tr>
<tr>
<td>Austria</td>
<td>322,539</td>
<td>9,087</td>
<td>325,475</td>
</tr>
<tr>
<td>Belgium</td>
<td>391,712</td>
<td>10,990</td>
<td>300,608</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>42,012</td>
<td>2,904</td>
<td>160,127</td>
</tr>
<tr>
<td>Croatia</td>
<td>43,487</td>
<td>1,204</td>
<td>67,512</td>
</tr>
<tr>
<td>Cyprus</td>
<td>18,118</td>
<td>129</td>
<td>16,122</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>157,742</td>
<td>7,486</td>
<td>351,517</td>
</tr>
<tr>
<td>Denmark</td>
<td>258,743</td>
<td>5,453</td>
<td>173,917</td>
</tr>
<tr>
<td>Estonia</td>
<td>18,890</td>
<td>1,259</td>
<td>31,080</td>
</tr>
<tr>
<td>Finland</td>
<td>203,338</td>
<td>6,024</td>
<td>274,637</td>
</tr>
<tr>
<td>France</td>
<td>2,115,256</td>
<td>43,679</td>
<td>1,999,869</td>
</tr>
<tr>
<td>Greece</td>
<td>180,654</td>
<td>2,668</td>
<td>480,794</td>
</tr>
<tr>
<td>Spain</td>
<td>1,025,634</td>
<td>29,996</td>
<td>1,124,480</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>652,748</td>
<td>19,275</td>
<td>604,692</td>
</tr>
<tr>
<td>Ireland</td>
<td>180,209</td>
<td>2,855</td>
<td>107,222</td>
</tr>
<tr>
<td>Lithuania</td>
<td>35,002</td>
<td>3,260</td>
<td>52,346</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>46,353</td>
<td>1,201</td>
<td>51,480</td>
</tr>
<tr>
<td>Latvia</td>
<td>22,816</td>
<td>1,389</td>
<td>60,610</td>
</tr>
<tr>
<td>Malta</td>
<td>7,631</td>
<td>103</td>
<td>n/a</td>
</tr>
<tr>
<td>Germany</td>
<td>2,826,240</td>
<td>39,194</td>
<td>2,938,702</td>
</tr>
<tr>
<td>Poland</td>
<td>394,721</td>
<td>20,281</td>
<td>1,300,608</td>
</tr>
<tr>
<td>Portugal</td>
<td>170,269</td>
<td>4,796</td>
<td>148,177</td>
</tr>
<tr>
<td>Romania</td>
<td>144,254</td>
<td>6,083</td>
<td>191,554</td>
</tr>
<tr>
<td>Slovakia</td>
<td>74,170</td>
<td>2,961</td>
<td>129,032</td>
</tr>
<tr>
<td>Slovenia</td>
<td>35,917</td>
<td>2,118</td>
<td>65,340</td>
</tr>
<tr>
<td>Sweden</td>
<td>435,752</td>
<td>11,191</td>
<td>281,177</td>
</tr>
<tr>
<td>Hungary</td>
<td>101,483</td>
<td>4,813</td>
<td>169,211</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,048,328</td>
<td>28,222</td>
<td>1,507,108</td>
</tr>
<tr>
<td>Italy</td>
<td>1,604,599</td>
<td>42,562</td>
<td>1,023,872</td>
</tr>
<tr>
<td>Total EU 28</td>
<td>13,558,618</td>
<td>311,181</td>
<td>13,937,269</td>
</tr>
<tr>
<td>Median</td>
<td>175,239</td>
<td>5,133</td>
<td>191,554</td>
</tr>
</tbody>
</table>

Source: Eurostat
European Union Member States are characterised by a highly diverse economic potential (tab 1). In terms of Gross Domestic Product, Germany and France are leaders. Their joint share of European Union’s GDP in 2013 was 36.4%. Other countries whose GDP is over EUR 1 trillion are: United Kingdom, Italy and Spain. The GDP median is EUR 175.2 million, meaning that in 2013 the countries whose economy was the closest to the EU average were Greece (EUR 180.6 billion) and Portugal (EUR 170.3 billion).

Germany and France are also EU leaders in road freight transport. Germany is characterised by the largest volume of carriage (2,938 million tons) and the number of people employed in the sector (409.9 thousand people). Meanwhile, France leads in terms of the revenues (EUR 43.7 billion).

Countries that are the closest to the median in terms of revenues of the road freight transport are Denmark (EUR 5.5 billion) and Hungary (EUR 4.8 billion). In terms of volume of carriage in the EU, Romania is at the median (191.6 million tons). On the other hand, in terms of employment rate, the countries that are the closest to the median value for EU are Austria (57.9 thousand) and Bulgaria (55.7 thousand). Meanwhile, as regards the number of companies, the countries that are the closest to the median are Finland (10.4 thousand) and Portugal (8.3 thousand).

Research by Transport Intelligence presented in “European Road Freight Transport 2016” reveals that the EU road transport market is very fragmented and divided. It is characterised by high segmentation, as part of different business models, with ten largest representatives holding only a 10% market share. Therefore, we may not speak of monopoly, but rather of road freight by small and middle-sized companies (often family-owned), which create jobs, incur high expenditure on development related to purchasing and modernising its stock of trucks, and struggle with the growing labour costs. As a large part of manufacturing operation is located in Central Europe and is complementary to that of holding companies or partner companies in Western Europe, the growing demand for international road transport is a natural factor, especially at the time of respective countries’ adequate economic growth. Bearing in mind that differences in a given market’s growth and the degree to which a specific company grows, are determined, among other things, by oil prices, mergers and acquisitions as well as by exchange rates and the contract-based nature of its operations, it can be assumed that the EU transport market in the years 2015 to 2016 was growing by 2-3% on average, with real growth of 2.7% in 2015 and 2.4% in 2016 (table 2)

Table 2. Total volume of market and growth in EU road transport (euro)

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</tr>
</thead>
<tbody>
<tr>
<td>Road transport (m)</td>
<td>274995.0</td>
<td>284705.0</td>
<td>296642.0</td>
<td>294389.0</td>
<td>297511.0</td>
<td>305979.0</td>
<td>313694.0</td>
<td>320453.0</td>
</tr>
<tr>
<td>Nominal growth (%)</td>
<td>n/a</td>
<td>3.50%</td>
<td>4.20%</td>
<td>-0.80%</td>
<td>1.10%</td>
<td>2.80%</td>
<td>2.50%</td>
<td>2.20%</td>
</tr>
<tr>
<td>Real growth (%)</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>2.70%</td>
<td>2.40%</td>
</tr>
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Source: Transport Intelligence, Last update: 01/12/2016

1.3. Overview of road infrastructure policy in Europe

The road transport sector in Europe is the foundation of the single market, enabling the freedom and the possibility of the movement of goods, in particular, but also that of services or employees. One of the European Commission’s priorities is rightly to decrease the investment gap in Europe, among other things, by launching a number of transport projects (more than 10% of the Financial Framework 2014-2020 to be earmarked for transport projects). From the Connecting Europe Facility (CEF) alone, the amount of EUR 24.05 billion was allocated in the EU budget for 2016-2020 to co-finance Trans-European Transport Networks – TEN-T. One of the initiatives as part of this co-financing, as part of the Connecting Europe Facility, is a package of 195 transport projects announced by the European Commission on 17 June 2016, with an estimated total financial involvement of both co-financing parties of EUR 16.3 billion. More than 15% of goods in export and nearly 18% in import are moved as part of the EU international trade in goods, meaning that, in addition to the air transport (ca. 30% in export) and sea transport (51%), means of road transport represent a major element of EU’s overall transport sector.

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5 European Road Freight Transport 2016, Transport Intelligence, Bath 2016.
The demand for overland transport in Europe is expected to significantly increase in the coming years. In 20 years to come, it is necessary to bear investment expenditure on EU transport infrastructure of no less than EUR 1.5 billion, while by 2020 it is necessary to spend at least EUR 500 billion needed to perform the main functions as part of TEN-T. It should be noted here that interoperability of road carriage is not possible without a greater and necessary liberalisation of EU road transport, which requires community-wide regulations to facilitate the cross-border movement of vehicles, especially as regards its versatility and the ability to use single transponder (rather than the several or over a dozen used now), based on common technology (DRC or GPS/GSM), or full competitiveness of the services provided. This requires full application of the principle of subsidiarity in crossing a border between all EU member states, which would help operate efficient loading (e.g.: loading and movement of 44 ton- instead of 40 ton trucks), transport and competition. In addition, once the first legislation is introduced in Sweden and Finland, authorising the road movement of Longer Heavier Vehicles (LHVs) of 25.25 m (European Modular System – EMS truck), instead of the currently standardised 18.85 m (tractor with trailer), EU transport policy will have to face assessment and potential implementation of new transport options, which, if made effective, will surely increase the volume of goods carried by means of road transport.

The transport price index got back to its 2008 value in the second half of 2011, showing a minimum upward trend until 2015, a year which saw a slight reduction in the prices of transport services, probably due to greater competition (fig. 3).

Fig. 3. EU transport and telecommunications price index

Source: Eurostat data

1.4. The main stakeholders in the road transport sector

The entire logistics services sector in Europe (28 EU member states as well as Switzerland and Norway) was estimated in 2014 at EUR 960 billion, which corresponded to the carriage of 18.6 billion tons of goods. The undisputed leader in logistics services in terms of volume is Germany (EUR 235 million), followed by France (EUR 124.7 million), United Kingdom (EUR 95.6 million), Spain (EUR 71.9 million) and Italy (EUR 71 million). This means that the average European value of logistics services in 2014 stood at EUR 31.8 billion – fig. 4.

---

7 Road transport in the single market – identifying challenges and the way forward, BusinessEurope, Position Paper, 6 December 2016.
According to the yearly list of top 100 largest logistics companies worldwide for 2015/2016, as many as two German companies are among the first five companies of the sector, of which one leads the list. Compared to survey for 2013/2014, this shows a growing role of German companies in this market segment as back then only one company from this country was among global top five.

With reference to the European logistics market, it can be definitely said that according to the already mentioned ranking list for 2015/2016, German and French companies are predominant among top 10 logistics companies in Europe (Table 3). This is a very stable position, also visible in previous years.

Table 3. Top 100 in European Transport and Logistics Services 2015/2016.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Company name</th>
<th>country of origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deutsche Post DHL (Group)</td>
<td>Germany</td>
</tr>
<tr>
<td>2</td>
<td>DB Mobility Logistics AG</td>
<td>Germany</td>
</tr>
<tr>
<td>3</td>
<td>Maersk A/S (ocean carrier)</td>
<td>Denmark</td>
</tr>
<tr>
<td>4</td>
<td>Kuehne + Nagel International AG</td>
<td>Switzerland</td>
</tr>
<tr>
<td>4</td>
<td>DB Schenker Logistics (part of DB Mobility Logistics AG)</td>
<td>Germany</td>
</tr>
<tr>
<td>5</td>
<td>SNCF SA (FR)</td>
<td>France</td>
</tr>
<tr>
<td>6</td>
<td>La Poste (Group)</td>
<td>France</td>
</tr>
<tr>
<td>7</td>
<td>CMA-CGM SA (ocean carrier)</td>
<td>France</td>
</tr>
<tr>
<td>8</td>
<td>The Royal Mail Holdings Plc.</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>9</td>
<td>UPS Europe NV</td>
<td>Belgium</td>
</tr>
<tr>
<td>10</td>
<td>DSV A/S</td>
<td>Denmark</td>
</tr>
</tbody>
</table>

Source: Top 100 in European Transport and Logistics Services 2015/2016, Fraunhofer, Nürnberg
1.5. Overview of the market by European countries

According to the standard goods classification for transport statistics (NTS)\(^8\), the main commodities carried in the EU in 2015 were (and will be) metal ores and other mining and quarrying products (25.3%), other non-metallic mineral products (12%), food products, beverages and tobacco (11.9%), as well as broadly defined products of agriculture, hunting and forestry (9.1%) – table 4.

Table 4. Road transport in EU by commodity groups in the years 2011 to 2015 (in thousand tons).

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Products of agriculture, hunting, and forestry; fish and other fishing products</td>
<td>1,225,334</td>
<td>1,224,461</td>
<td>1,231,559</td>
<td>1,290,398</td>
<td>1,301,473</td>
<td>9.1</td>
</tr>
<tr>
<td>02 Coal and lignite; crude petroleum and natural gas</td>
<td>178,160</td>
<td>167,578</td>
<td>184,455</td>
<td>109,093</td>
<td>152,983</td>
<td>1.1</td>
</tr>
<tr>
<td>03 Metal ores and other mining and quarrying products; peat; uranium and thorium</td>
<td>4,269,655</td>
<td>3,621,346</td>
<td>3,515,161</td>
<td>3,629,088</td>
<td>3,628,419</td>
<td>25.3</td>
</tr>
<tr>
<td>04 Food products, beverages and tobacco</td>
<td>1,616,887</td>
<td>1,639,575</td>
<td>1,647,432</td>
<td>1,626,498</td>
<td>1,712,824</td>
<td>11.9</td>
</tr>
<tr>
<td>05 Textiles and textile products; leather and leather products</td>
<td>66,504</td>
<td>67,652</td>
<td>71,238</td>
<td>63,782</td>
<td>66,692</td>
<td>0.5</td>
</tr>
<tr>
<td>06 Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media</td>
<td>594,906</td>
<td>552,833</td>
<td>564,975</td>
<td>563,722</td>
<td>580,970</td>
<td>4.1</td>
</tr>
<tr>
<td>07 Coke and refined petroleum products</td>
<td>514,429</td>
<td>510,642</td>
<td>473,715</td>
<td>470,489</td>
<td>505,304</td>
<td>3.5</td>
</tr>
<tr>
<td>08 Chemicals, chemical products, and man-made fibres; rubber and plastic products; nuclear fuel</td>
<td>585,177</td>
<td>573,134</td>
<td>535,794</td>
<td>561,425</td>
<td>570,524</td>
<td>4.0</td>
</tr>
<tr>
<td>09 Other non metallic mineral products</td>
<td>2,072,062</td>
<td>1,865,269</td>
<td>1,777,052</td>
<td>1,770,512</td>
<td>1,725,549</td>
<td>12.0</td>
</tr>
<tr>
<td>10 Basic metals; fabricated metal products, except machinery and equipment</td>
<td>581,341</td>
<td>554,223</td>
<td>544,150</td>
<td>549,051</td>
<td>530,355</td>
<td>3.7</td>
</tr>
<tr>
<td>11 Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks</td>
<td>297,236</td>
<td>274,404</td>
<td>262,201</td>
<td>261,627</td>
<td>272,227</td>
<td>1.9</td>
</tr>
<tr>
<td>12 Transport equipment</td>
<td>240,326</td>
<td>233,202</td>
<td>235,281</td>
<td>255,229</td>
<td>265,291</td>
<td>1.9</td>
</tr>
<tr>
<td>13 Furniture; other manufactured goods n.e.c.</td>
<td>105,592</td>
<td>96,531</td>
<td>95,518</td>
<td>103,489</td>
<td>109,348</td>
<td>0.8</td>
</tr>
<tr>
<td>14 Secondary raw materials; municipal wastes and other wastes</td>
<td>1,098,067</td>
<td>1,105,930</td>
<td>1,099,720</td>
<td>1,135,387</td>
<td>1,120,856</td>
<td>7.8</td>
</tr>
<tr>
<td>15 Mail, parcels</td>
<td>177,831</td>
<td>174,791</td>
<td>173,104</td>
<td>170,614</td>
<td>184,396</td>
<td>1.3</td>
</tr>
<tr>
<td>16 Equipment and material utilized in the transport of goods</td>
<td>253,247</td>
<td>263,228</td>
<td>255,648</td>
<td>279,023</td>
<td>297,687</td>
<td>2.1</td>
</tr>
<tr>
<td>17 Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.</td>
<td>120,225</td>
<td>128,084</td>
<td>139,135</td>
<td>148,026</td>
<td>158,842</td>
<td>1.1</td>
</tr>
<tr>
<td>18 Grouped goods: a mixture of types of goods which are transported together</td>
<td>657,355</td>
<td>700,912</td>
<td>818,687</td>
<td>810,655</td>
<td>784,776</td>
<td>5.5</td>
</tr>
<tr>
<td>19 Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16</td>
<td>170,184</td>
<td>125,753</td>
<td>158,665</td>
<td>161,665</td>
<td>206,321</td>
<td>1.4</td>
</tr>
<tr>
<td>20 Other goods n.e.c.</td>
<td>193,444</td>
<td>162,426</td>
<td>167,822</td>
<td>176,021</td>
<td>159,385</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Eurostat (online data code: road_go_ta_tg).

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The share of road freight transport in total revenues from transport for respective EU Member States is between 5.5% (Cyprus) and 50.7% (Bulgaria), while the share for the Union as a whole stands at 22.6%. The median value for all EU member states is 25.9%, which corresponds to the average share in Finland (26.3%) and The Netherlands (25.5%). Countries for which road freight transport is of greatest importance include mostly CEE countries (Bulgaria, Poland, Romania, Lithuania). On the other hand, insular countries (Cyprus, Malta) or countries with high economic potential (Germany, United Kingdom) have the lowest share – fig. 5.

Figure 5. Share of road freight transport in total revenues from transport in respective EU Member States in 2013

Source: own calculation based on Eurostat data
The share of road freight transport in total revenues from transport in relation to Gross Domestic Product for respective EU Member States is between 0.7% (Cyprus) and 9.3% (Lithuania), while the share for the Union as a whole stands at 2.3% – fig. 6. The median value for all EU member states is 2.8%, which corresponds to the average share of GDP in Croatia, Belgium, Portugal and Austria. Countries where road freight transport is of greatest importance to the economy include mostly Baltic countries (Lithuania, Latvia and Estonia) and Bulgaria. Countries with the lowest share, same as for share in total transport, are Cyprus and Malta (small insular states) as well as United Kingdom and Germany (largest economies in the EU).

Figure 6. Share of road freight transport in GDP of EU Member States in 2013

Source: own calculation based on Eurostat data
The area of France and Germany is of key importance to cabotage services provided in Europe. For 17 EU member states, cabotage on the territory of those two States alone represents from 49% to 100% of total cabotage services. For 3 states (Italy, Spain and Sweden) this share is over 90%. The median value is 56.9% and it is closest to The Netherlands (58.5%) and Romania (55.3%). 10 states have a higher share of cabotage services provided in Germany and France compared to the EU as a whole (fig. 7).

Figure 7. Share of cabotage in Germany and France in the volume of total cabotage carriage in respective EU Member States in 2010

Source: own calculation based on Eurostat data
1.6. Market perspectives by 2030-2050

Digitalisation and real time planning, cutting edge security and eco-friendly technologies as well as flexible management using synergies through cooperation, will be the defining features of road and rail transport in 2030. Demand for transport services in Europe can be expected to double by 2050, and all of logistics operations will be well planned and strictly regulated by the European Union. One cannot rule out the establishment of large inter-regional distribution centres, fully communicating and managing commodity demand (modeled, for example, on stock exchanges and high frequency trading, HFT). Transport based on concentrated information, communication and renewable energy clusters (smart grids) seems the defining feature of a fully intermodal transport, both for medium distances (up to 300 km) and long ones. In the long run, there is a high likelihood that transport will move towards railway (though as of today the scale of this branch is very low, fig 2), but with full integration of all transport corridors (road, air, rail and sea transport alike) and with greater demand for more frequent transport services by land for short and medium distances. The trend curve (fig. 8) outlined for truck transport services clearly leads to such a conclusion.

Fig. 8. Size of the logistics market in Europe in the years 1995 to 2014 (million ton-kilometers)

Source: Statistical pocketbook 2016, Mobility and Transport, European Commission

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9 Vision of the Future: Transportation and Logistics 2030, Fraunhofer-Institut für Materialfluss und Logistik, IML, Daimler AG, DB Mobility Logistics AG, Dortmund, Stuttgart, Frankfurt am Main, February 2014.
10 B. Rath, C. Seibt, Freight Vision 2050, EFP Brief No. 231, University of Applied Sciences Upper Austria, Vienna University of Economics and Business, Austria, February 2012.
2. THREATS AND OPPORTUNITIES INVOLVED IN THE NEW LEGAL REGULATIONS IN THE EUROPEAN ROAD TRANSPORT

2.1. Freedom principles on the single market

One of the most important or actually most fundamental concepts of the European Union economic law is the internal market defined as an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured (Article 26 Section 2 of the TFEU and Article 3 Section 3 of the Treaty on the European Union). At the same time it is prohibited both to restrict the freedom of establishment of nationals of a Member State in the territory of another Member State (Article 49 of the TFEU), and the freedom to provide services within the Union in respect of nationals of Member States who are established in a Member State other than that of the person for whom the services are intended (Article 56 of the TFEU). As a rule, the freedom of establishment involves registering a given economic activity of continuing nature in a given territory covered by specific legislation and a number of oppressive frameworks were imposed, which make as part of minimum wage laws (2015 – Germany; 2016 – France) represents such an approach. It should be noted that minimum wage is nothing new and is in effect in most of the EU Member States, and, at the same time, in 26 out of 34 OECD member states, which is why the original changes that reduce the effect of low wages did not attract much attention. Serious concerns came when Germany presented a very broad interpretation of the new regulations, especially imposing the requirements to apply an hourly minimum rate for carriers having their registered office outside the Federal Republic of Germany and performing transport operations in the Federal Republic of Germany irrespective of the nature of these operations (cabotage, international transport to/from the Federal Republic of Germany, transit of goods and persons). According to this interpretation, a sufficient criterion for imposing the minimum wage duty as per German rate (EUR 8.50/h) is a continuous stay, even a short one, on the territory of Germany in connection with job performance (the principle of territorial interpretation of regulations). Thus drivers were automatically considered to be posted employees if they perform work within a given territory covered by specific legislation and a number of oppressive frameworks were imposed, which contradict full growth of the EU, by introducing unjustified impediments to or even preventing the provision of services in both Germany and France. As analogous regulations were also introduced in Italy, analytical and planning work is under way and in countries such as Belgium, Luxembourg and The Netherlands as regards the possibility of implementing their own regulations of that sort, it is necessary to note the negative consequences of such actions, which lead to unwarranted interference with the freedom of European Union’s common market. In addition, these regulations, as emphasised many times among employers, represent a far-reaching interference with labour law relationships in a given member state by challenging the wording of effective employment contracts, collective bargaining agreements or even work schedules of respective employee professional groups in the private and public sector. This is why already in 2015, on the initiative of Poland, 11 EU Member States such as: Bulgaria, Croatia, Czech Republic, Estonia, Greece, Lithuania, Poland, Romania, Slovakia, Slovenia and Hungary signed a joint letter which was presented both to the Federal Minister of Labour and Social Affairs of the Federal Republic of Germany and to the Federal Minister of Transport and Digital Infrastructure of the Federal Republic of Germany, expressing strong concern over the negative impact of the legal regulations adopted by Germany on EU’s entire transport sector.

2.2. Presentation of the MiLoG and Macron laws

MiLoG law and Loi Macron

On 1 January 2015, the Minimum Wage Law (Mindestlohnsgesetz) came into effect, imposing on each employer in Germany and abroad the duty to pay a fee of no less than EUR 8.50 gross per hour to every employee hired in Germany. The Act is applicable to all employees within the territory of the Federal Republic of Germany, including employees hired by companies having registered address in other EU Member States. Thus MiLoG interferes with the functioning of the EU internal market as it affects such companies’ exercise of the freedom to provide services and free movement of goods. MiLoG especially affected transport companies having registered address in other Member States (…), which hire especially mobile employees performing transport services in various Member States. This caused these companies and a number of Member States to claim MiLoG is in conflict with the freedoms of the EU internal market and with detailed regulations contained in the acts of EU secondary

Such a position was upheld by the European Commission, which, as early as on 21 January 2015, started the EU PILOT procedure against the Federal Republic of Germany and on 6 March 2015 transport companies from several EU Member States filed with the Federal Constitutional Tribunal in Karlsruhe a constitutional complaint against the application of the minimum wage law. The petitioners alleged a flagrant non-conformance of §§ 16, 17 II, 20 of MiLoG with the EU law (Article 8 of the Rome I Regulation – as regards the need to present extensive documentation and ensure reporting – also for cross-border transport, performed pursuant to a European licence), as well as the obvious non-conformance with Article 12 of the Basic Law. At the same time, European Commission, on 19 May 2015, initiated, pursuant to Article 258 of the TFEU, an infringement procedure concerning non-conformance with the obligations under the EU founding treaties and addressed to the German government a Letter of Formal Notice, identifying its reservations about MiLoG in terms of its compatibility with the EU law. Even though the government of the Federal Republic of Germany suspended the applicability of the provisions of MiLoG as regards administrative requirements and fines for all transport companies, whose registered office is located outside the territory of Germany, the law does not take account of the entire international transport (except transit) and cabotage, introducing not only uncertainty and high risk of trade, but also challenging the legally established foundations of the EU’s common market.

The Federal Constitutional Tribunal in Germany, in its decision issued in June 2015 pointed to the need to use other procedural possibilities in the case under review, while noting the shortcomings and risks arising out of MiLoG:

- …the interpretation and the application of the minimum wage law are not explained. This lack of clarity stems from the issue of what should be understood as ‘employment in the country’ as defined in §20 of MiLoG and whether the minimum wage duty for foreign companies in transport sector is compatible with the EU law (which issue is disputed in the literature of the subject)…;
- …it is still not clear whether employment in the country is to be understood the way it is understood in social law and whether every work without exception, also such short-term work within the territory of the Federal Republic of Germany, represents employment in the country, or maybe its specific duration or relation to the German social insurance system as well as connection with costs of living in Germany…

It is always of significance that MiLoG introduces high administrative burden, penalised as offenses, and, at the same time, inspection burdens, which not only interfere with the labour law of another EU Member State but also with a company’s trade secret and know-how. In addition, it introduces financial sanctions for non-conformance with MiLoG, which, pursuant to §21 amount to: up to EUR 500 thousand (for non-payment or late payment of the wage due) and up to EUR 30 thousand for any other case provided for in the Law (e.g. breach of the reporting duties, duty to collaborate in the course of inspection, work time confirmations, duty to store documentation and make it available).

**About the macron law**

At the same time, as of 1 July 2016, a new minimum wage regulation came into effect in France, which also includes cabotage and international transport to and from France (excluding transit), the so called Loi Macron. The French regulation sets the minimum wage (SMIC) at EUR 9.68/hour initially and from 1 January 2017, at EUR 9.76/hour. It also introduces a number of barriers to economic activity in road transport, such as the need to appoint a representative in France to represent the company for inspection matters. Adding to this is keeping payroll documentation and order confirmations, as well as employment contracts in French. All of the duties related to reporting employee(s) posted to work in France are managed electronically by SIPSI system, but a driver must still have analogous hard copy documents in case of inspection (comparison of MiLoG vs Loi Macron is presented in table 5).
Table 5. Breakdown of the main regulations of the minimum wage law in Germany and France (MiLoG vs. Loi Macron)

<table>
<thead>
<tr>
<th>Details</th>
<th>Act on regulation of the universal minimum wage (Mindestlohngesetz – MiLoG)</th>
<th>Macron Law (La Loi Macron)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum wage amount</td>
<td>The minimum wage is EUR 8.50 gross per sixty minutes. Minimum wage is not applicable • for the first six months of employment to employment relationships with employees who, immediately before the beginning of employment, were long-term unemployed as defined by the German law; • to people hired for training and people doing voluntary work</td>
<td>Ensuring minimum wage of ca. EUR 9.67 gross per hour (EUR 9.76/hour from 1 January 2017), plus seniority bonus as per applicable regulations in force in France.</td>
</tr>
<tr>
<td>Additional administrative burden</td>
<td>• the need to file a written report in German, containing detailed information on the period of employment, places where documents are stored in Germany, details of the responsible person or an agent for service of process. • an entity is obliged to register the beginning, the end and the duration of daily work time of those employees no later than before the end of the seventh calendar day following the day of work completion and to store such register for at least two years, starting from the relevant day of making such register. • relevant documentation must be stored in the vehicle in case of road check. • a responsible person or an agent for service of process must be appointed in Germany.</td>
<td>• the recipient has the duty to first establish if the duties with respect to declaring employee’s posting to work in France have been met • reporting employee posting to work (at least once half a year), while the duty of prior report is required for posting intended to last more than 7 days (i.e. from the 8th day). Where the driver’s continuous stay in France is shorter than 7 days, it is enough if he or she holds a certificate of posting. • the eight days time limit for cabotage, for which French regulations do not have to be applied, was completely abolished. • payroll documentation must be kept in French (e.g. detailed records of work time and confirmation of minimum wage payment), • each employee’s work time in France must be documented • relevant documentation must be stored in the vehicle in case of road check (e.g. employment contract translated into French and a confirmation of reporting the employee posting), • a permanent representative in France must be appointed, whose task will be to be in contact with French administrative services, store relevant documentation during employee(s) posting and within 18 months after the end of posting, and to ensure that the carrier’s activity is compliant with French regulations.</td>
</tr>
<tr>
<td>Breach of company secret</td>
<td>Authorities may review employment contracts, reports documenting major terms of employment as well as other commercial documents indirectly or directly containing information on the application of minimum wage.</td>
<td>Authorities may review employment contracts, reports documenting major terms of employment.</td>
</tr>
<tr>
<td>Fines and restricted access to the market</td>
<td>Infringement of the regulations is subject to: • a fine of at least EUR 2500 up to EUR 300 thousand for non-payment of the wage on time or in the relevant amount a fine of up to EUR 500 thousand can be imposed, • the need to exclude from competing for a contract for delivery, construction works or provision of services for an adequate period of time until they regain well documented credibility.</td>
<td>The sanctions in place are: a fine of no more than EUR 750 for not having a certificate in the vehicle or if the certificate is made out incorrectly, and a fine of no more than EUR 450 for not having the employment contract in the vehicle.</td>
</tr>
<tr>
<td>Scope of impact</td>
<td>In accordance with the German law, Employers having a registered office in Germany and abroad are obliged to pay to their employees employed in Germany a remuneration for work at least in the amount of minimum wage.</td>
<td>French labour law provisions (so not only minimum wage provisions) are applicable to all cabotage carriage within France and – which is especially important – to carriage of goods within the territory of France. These provisions are not based on the territorial criterion, which is why they do not include transit or export of goods from the territory of France.</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>the most favourable law benefits the worker and countries where the minimum wage is above EUR 8.50</td>
<td></td>
</tr>
</tbody>
</table>

Source: own based on MiLoG and Loi Macron
2.3. Critical analysis of MiLoG and Macron Law

In the light of the international transport in the EU is the competence of the EU (Article 4 Section 2 g of the TFEU) and is part of EU Common Transport Policy (Articles 90-100 of the TFEU) we guess that the two laws are in conflict with the TFE:

- in accordance with Article 26 Section 1 and 2 of the TFEU, The Union shall adopt measures with the aim of establishing or ensuring the functioning of the internal market, in accordance with the relevant provisions of the Treaties. The internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provisions of the Treaties,
- in accordance with Article 56 of the TFEU, restrictions on freedom to provide services within the Union are prohibited in respect of nationals of Member States who are established in a Member State other than that of the person for whom the services are intended (the principle of freedom to provide services),
- in accordance with Articles 56 and 57 of the TFEU (Eichenhofer, in: Dauses, EU-Wirtschaftsrecht (2014) D. III. marginal reference 42) the transport sector is subject to protection, and Article 57 of the TFEU protects the freedom to provide services defined as services (…) normally provided for remuneration, in so far as they are not governed by the provisions relating to freedom of movement for goods, capital and persons.

Services in particular include:

(a) activities of an industrial character;
(b) activities of a commercial character;
(c) activities of craftsmen;
(d) activities of the professions,

- in accordance with the provisions of regulations 1072/2009 and 1073/2009 the applicability of the freedom to provide services and other freedoms of the internal market as part of the Common Transport Policy is confirmed, thus excluding the regulation of Article 58 Section 1 of the TFEU.

Finally respecting the well-established European Court of Justice rulings, one cannot agree with the illusory and phony guarantee for the freedom to provide services in the road transport according to Loi Macron and MiLoG minimum wage laws as they may be in direct conflict with Article 56 and Article 58 of the Treaty on the Functioning of the European Union, violating the freedom to provide services. In accordance with the ECJ judgment in the Rüffert case, competitive advantage of contractors from countries with lower wage rates is an interest worth protecting to ensure free movement of services. Imposing the duty to apply the German minimum wage rate on all carriers will restrict competition on the market, creating a market gap between one-man international transport undertakings and major carriers from the “old” EU states for which the applicability of the said rate will not be a burden, as the wage of drivers hired by them is already similar. For all carriers from the market area between the above indicated types of market participants, hailing from the area of the “new” EU, the applicability of the German minimum wage rate will be a major financial burden, which may even eliminate those carriers’ ability to perform any carriage (international or cabotage) within Germany. Due to the central location of Germany in Europe, lack of such ability may mean serious difficulties in continuing their transport operations. Meanwhile, for one-man international transport undertakings (to which MiLoG does not apply), the applicability of MiLoG provisions in case of hiring drivers pursuant to an employment contract, will represent a major barrier for further growth.

Another fragment of this ruling (ECJ – Rüffert, ECJ of 3 April 2008, C-346/06) should be considered irrelevant. It admittedly confirmed the possibility of introducing the minimum wage in the pubic sector, but it did so in a different and drastic way, one which is contrary to logic, economic realities of the purchasing power parity in EU member states’ economies, which differ in terms of growth and development, and to the rules of economic circulation. In addition, the aforementioned judgment of ECJ fully meets Radbruch formula (after Gustav Radbruch – 1878-1949, professor of the University of Heidelberg and three time Minister of Justice of the Weimar Republic), whereby a law that is flagrantly wrong is not a law. Thus it is in line with the first thesis of flagrant conflict (“Unerträglichkeitsthese”) with the precepts of justice, so it cannot be applied. It is

17 The Minimum Wage Law does not seem to be in breach of the Regulation (EC) 1071/2009 (rules for individual access to the transport market, Regulation (EC) 1072/2009 (rules for access to the market in the carriage of goods, or Regulation (CE) 1073/2009 (rules for access to the market in the carriage of passengers) – however they otherwise introduce additional impediments, costs and functionality – in the access and operating conditions on the transport market.
18 See. e.g.: Judgment of the Court of Justice of 15 March 2001 in the case C-165/98 Mazzoleni
19 Judgment of the ECJ of 3 April 2008 in the case C-346/06 Rüffert, par. 11-12.
20 C. Barnard, EU Employment Law, 4th eds, Oxford University Press 2012, p. 211.
also in line with the second thesis of lawlessness ("Verleugnungsthese"), stipulating that (...) Where there is not even an attempt at justice, where equality, the core of justice, is deliberately betrayed in the issuance of positive law, then the statute is not merely ‘flawed law’, it lacks completely the very nature of law23. Last but not least, it is in line with the third thesis of Radbruch, that of defencelessness of legal profession ("Wehrlosigkeitsthese") and resorting to extreme versions of statutory positivism. Positivism claims to have proved the validity of a statute simply by showing that the statute had sufficient power behind it to prevail. But while power may indeed serve as a basis for the ‘must’ of compulsion, it never serves as a basis for the ‘ought’ of obligation or for legal validity24.

It is submitted that the regulations of the German minimum wage law (MiLoG) and the French Loi Macron are in inadequacy of the principle of freedom to provide services, especially as regards:

1. impeding market access by: introducing national regulations which make service provision between Member States more difficult than service provision on the domestic market is inadmissible (C-76/05 Schwarz);
2. impeding or rendering less advantageous the activities of a service provider established in another Member State where it legally provides such services, in another Member State (C-250/06 United Pan Europe Communication, C-17/00 De Coster, C-544/03 and C545/03 Mobistar, C-94/04 and C 202/04 Cipolla);
3. adapting the new regulations to the level of economic development of Germany or France, thus discriminating against entrepreneurs operating in economic conditions of other EU states;
4. introducing hidden discrimination, as foreign entities are more affected by its effect (C-61/77 Commission v Ireland). By way of example, it should be pointed out that the exemptions from the application of MiLoG refer, in practice, only to German law entities, and moreover, the Minimum Wage Commission appointed in MiLoG, in the course of the minimum wage indexation procedure refers to economic interest of German entities (employers and trade unions) only – (§11 par. 2 in conjunction with §10 par. 3 of MiLoG), which are the only ones able to present a written position on the indexation;
5. introducing blatantly burdensome administrative duties targeting mainly entities from outside the Federal Republic of Germany, including imposing on employers from outside the Federal Republic of Germany an additional duty to store documentation in Germany;
6. imposing on entrepreneurs from another European Union Member State the requirement to meet double legal standards (C-76/90). A foreign employer performing services in Europe is obliged, according to MiLoG, to meet both the requirements of the law of the country of residence and of German law, even though it does not exercise the freedom of establishment in the Federal Republic of Germany (i.e. it does not establish a company there);
7. implementing a national action in breach of the principle of proportionality of the action intended to the objective set (C 36/02 Omega Spielhallen). The restriction of the freedom may be justified by important imperative requirements in the general interest, however, they must meet the requirements of the principles of subsidiarity i.e. secure the attainment of the objective which they pursue; and they must not go beyond what is necessary in order to attain it. (C-55/94 Gebhard)25.

The unjustified interference with the fundamental freedoms guaranteed by the TFEU should be the basis for further adjudicating on compliance of MiLoG and Loi Macron minimum wage laws. In this regard, one should not overlook the well-established ECJ ruling, which explicitly states that the contractual obligations between the contracting parties (employee-employer), if the employee performs work in more than one country and in the light of all the factors which characterise that activity, should be considered as the greater part of employee’s obligations towards his employer (ECJ judgement of 15 March 2011 in the case C-29/10, actual place where an employee performs his work and returns after work (ECJ judgement of 15 March 2011 in the case C-29/10; ECJ judgment of 9 January 1997 in the case C-383/95, ECJ judgment of 10 April 2003 in the case C-437/00), while bearing in mind that the road transport in the EU is characterised by its international nature and high frequency and also variability of the overall transport operations, thus excluding the possibility to fully apply Directive 96/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services.

25 Allegations of the complaint against the Federal Republic of Germany filed with the Court of Justice of the European Union.
2.4. The principle of social dumping in the European law

The contemporary exercise of the Treaty freedoms is sometimes deliberately equated with a manifestation of social dumping, which shows that fundamental concepts and well-established paradigms are given new meanings in the competitive struggle between states. Such "newspeak" and further interpretations which, in essence, distort the line between the protection of worker rights and the freedom of establishment, undermining the competitive position of the EU as a whole on the international arena. Under the banners of work equality, equal rights and fair competition, which would ensure the functioning of the EU single market, there is talk of protection of both employees and small and medium-sized enterprises. Meanwhile, in different communities and different stakeholder groups, a sort of cognitive dissonance emerges, resulting from the incompatibility of opinions and behaviours declared in writing, and behaviours and opinions which can be observed in practice.

Too bad that for many years the Court of Justice of the European Union did not develop a definition of social dumping, which would greatly help all interpretation. However, it stated that restrictions on the exercise of Treaty freedoms may be justified as the protection of employees is an imperative requirement. This was further reflected in the "Arblade" ruling (C-369/96 and C-376/96), and, particularly, in the 2007 judgments in the "Viking" case (C-438/05) and in the "Laval" case (C-341/05), where the Court tried to balance both parties' interests, while not appreciating the position of trade unions. At the same time, it pointed to the possibility of restricting the Treaty law: the right to take collective action for the protection of the workers of the host State against possible social dumping may constitute an overriding reason of public interest. Such approach takes account of the economic and social factors, while it may naturally put cross-border entrepreneurs in conflict of interest with other participants of the internal market, if they want to provide their services using posted workers. The quest for balancing the interests of all interested parties must be ensured in subsequent interactions, but it should also take account of social and economic changes that have happened in recent years and of the attempts to objectively apply legal standards. At the same time, there is a tendency to forget that there are marked developmental differences between relevant states, which provide goods and services subject to different pricing and competition rules adapted to a given level of development. Indeed, it is easy to gain social acceptance and employee organisations' favourable attitude towards such changes, when there is talk of equal treatment of workers and pay raise for those with lowest wages, while ultimately affecting the marginal propensity to consume. Most workers think irrationally, in a manner that is subjectively associated with satisfying their needs in the first place, while they care little about the impact such changes will have on the competitive position of the company they work for or the state they live in. After all, this has impact on the final aggregates of the profit and loss account, and from the state’s perspective, it determines growth and development.

A definition of, or, actually, the term social dumping was only adopted by the European Parliament on 18 August 2016, stating that it is: a wide range of intentionally abusive practices and the circumvention of existing European and national legislation (including laws and universally applicable collective agreements), which enable the development of unfair competition by unlawfully minimising labour and operation costs and lead to violations of workers’ rights and exploitation of workers. The Parliament also concluded that the consequences of such abusive practices should be considered in three dimensions:

- the economic aspect – such as undeclared work or bogus self-employment, leading to major distortions of the economy, in particular in SME sector,
- the social aspect – social dumping could lead to a situation of discrimination and unfair treatment between workers in the EU and deprive them of the effective exercise of their social and labour rights, including in respect of pay and social protection,
- the financial and budgetary aspect – which represents a threat to the financial sustainability of the state's finance system (social security system and the public finances), resulting from the tax gap and shadow economy generated in the context of non-payment of due taxes and social security contributions.

In the opinion of the European Economic and Social Committee published on 5 December 2016, it can be read that the Committee (EESC) welcomes the European Commission’s proposals as regards amending the directive concerning the posting of workers in the framework of the provision of services (96/71/EC). However, EESC calls for the amendments to set out only the minimum standard, not a maximum, pointing out that in 2014 there were an average of 1.9 million posted workers in the European Union. The Committee also notes that the share of posted workers in the EU labour market has been increasing significantly, especially since 2010.

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Basically, Directive 96/71/EC is one of the two non-comprehensive directives that refer to social dumping. Another one is Directive 2014/67/EU on the enforcement of Directive 96/71/EC. However, the scope of the aforementioned directives is only limited to posted workers and does not include self-employed workers or workers performing work in another state, so we cannot talk of changing the place of performance.

2.5. Macron and MiLoG law: state protectionism or protection again social dumping?

In this context, the supra-national structure that is the European Union must and does have a number of contradictions, which need to be somehow justified. One of those contradictions is social dumping versus state protectionism. For the states of the so called "old European Union", social dumping is an attempt at state protectionism, which, upon gaining acclaim and relevant European legislation, will become one of the tools to increase the already existing competitive advantages. Minimum wage proposals are offered kind of incidentally as wages in developed states, though set at a minimum level, are higher in practice anyway. Meanwhile as many as 18 EU Member States have a minimum wage that is much below the minimum wage level adopted in MiLoG (EUR 8.50). In Bulgaria, the minimum wage is as much as 673% lower than in Germany, in Romania it’s 554% lower and in Lithuania it’s 372% lower – fig. 9 (tab. 6).

Fig. 9. The percentage difference between lower EU wages/hour compared to the minimum hourly rate in Germany (EUR)

Source: own based on Eurostat data

Table 6. Minimum wage in the economy in EU Member States in 2015 and its increase in the event it is necessary to increase the minimum wage to EUR 8.5/h

<table>
<thead>
<tr>
<th>State</th>
<th>Wage (EUR/h)</th>
<th>Wage gap compared to Germany (EUR/h)</th>
<th>Minimum wage increase</th>
<th>Equivalent of the wage in Germany, taking account of purchasing power (EUR/h)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>7.9</td>
<td>0.6</td>
<td>7.1%</td>
<td>9.0</td>
</tr>
<tr>
<td>Belgium</td>
<td>9.7</td>
<td>-</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1.1</td>
<td>7.4</td>
<td>675.8%</td>
<td>3.8</td>
</tr>
<tr>
<td>Croatia</td>
<td>2.3</td>
<td>6.2</td>
<td>270.0%</td>
<td>5.5</td>
</tr>
<tr>
<td>Cyprus</td>
<td>5.5</td>
<td>3.0</td>
<td>55.9%</td>
<td>7.0</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2.0</td>
<td>6.5</td>
<td>319.7%</td>
<td>5.3</td>
</tr>
<tr>
<td>Denmark</td>
<td>14.8</td>
<td>-</td>
<td>11.2%</td>
<td></td>
</tr>
<tr>
<td>Estonia</td>
<td>2.4</td>
<td>6.1</td>
<td>247.8%</td>
<td>6.0</td>
</tr>
<tr>
<td>Finland</td>
<td>9.9</td>
<td>-</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>9.7</td>
<td>-</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>4.0</td>
<td>4.5</td>
<td>114.1%</td>
<td>7.3</td>
</tr>
<tr>
<td>Spain</td>
<td>4.9</td>
<td>3.6</td>
<td>74.6%</td>
<td>7.4</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>11.2</td>
<td>-</td>
<td>9.0%</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>9.7</td>
<td>-</td>
<td>8.9%</td>
<td></td>
</tr>
<tr>
<td>Lithuania</td>
<td>1.8</td>
<td>6.7</td>
<td>364.1%</td>
<td>4.9</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>12.0</td>
<td>-</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>2.2</td>
<td>6.3</td>
<td>286.8%</td>
<td>5.5</td>
</tr>
<tr>
<td>Malta</td>
<td>4.5</td>
<td>4.0</td>
<td>88.3%</td>
<td>6.2</td>
</tr>
<tr>
<td>Germany</td>
<td>8.5</td>
<td>-</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>2.4</td>
<td>6.1</td>
<td>248.7%</td>
<td>4.7</td>
</tr>
<tr>
<td>Portugal</td>
<td>3.6</td>
<td>4.9</td>
<td>136.3%</td>
<td>6.6</td>
</tr>
<tr>
<td>Romania</td>
<td>1.3</td>
<td>7.2</td>
<td>540.1%</td>
<td>4.1</td>
</tr>
<tr>
<td>Slovakia</td>
<td>2.3</td>
<td>6.2</td>
<td>266.4%</td>
<td>5.5</td>
</tr>
<tr>
<td>Slovenia</td>
<td>4.8</td>
<td>3.7</td>
<td>76.1%</td>
<td>6.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>11.1</td>
<td>-</td>
<td>10.4%</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>2.1</td>
<td>6.4</td>
<td>307.7%</td>
<td>4.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9.1</td>
<td>-</td>
<td>-</td>
<td>9.3</td>
</tr>
<tr>
<td>Italy</td>
<td>3.5</td>
<td>5.0</td>
<td>145.5%</td>
<td>8.3</td>
</tr>
</tbody>
</table>

* Description of methodical calculation is in the macroeconomic part of the Report

Source: Eurostat, own calculation

The distribution of the average hourly wage in transport and logistics in 2014 in the EU states shows that in 19 states this wage was lower than the rate of EUR 8.5/h in effect in Germany. If it was necessary to increase the minimum hourly wage in transport up to the rate in effect in Germany, the increase of remuneration cost for transport and logistics companies per employee would be from EUR 0.6 in Portugal to EUR 6.4 in Bulgaria, meaning the average wage in transport would need to increase from 7.9% (Portugal) to 306.7% (Bulgaria) – table 7.
Table 7. Average wage in transport and logistics in EU Member States in 2014 and its increase in the event it is necessary to increase the minimum wage to EUR 8.5/h

<table>
<thead>
<tr>
<th>State</th>
<th>Wage (EUR/h)</th>
<th>Wage gap compared to Germany (EUR/h)</th>
<th>Minimum wage increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>14.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>18.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>2.1</td>
<td>6.4</td>
<td>306.7%</td>
</tr>
<tr>
<td>Croatia</td>
<td>4.2</td>
<td>4.3</td>
<td>101.7%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>11.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>4.9</td>
<td>3.7</td>
<td>75.3%</td>
</tr>
<tr>
<td>Denmark</td>
<td>30.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Estonia</td>
<td>5.5</td>
<td>3.0</td>
<td>54.3%</td>
</tr>
<tr>
<td>Finland</td>
<td>18.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>17.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>4.4</td>
<td>4.1</td>
<td>93.9%</td>
</tr>
<tr>
<td>Spain</td>
<td>11.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>17.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ireland</td>
<td>20.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lithuania</td>
<td>3.4</td>
<td>5.1</td>
<td>150.0%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>21.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Latvia</td>
<td>4.3</td>
<td>4.2</td>
<td>99.5%</td>
</tr>
<tr>
<td>Malta</td>
<td>10.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>14.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>4.7</td>
<td>3.8</td>
<td>80.1%</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.9</td>
<td>0.6</td>
<td>7.9%</td>
</tr>
<tr>
<td>Romania</td>
<td>2.8</td>
<td>5.7</td>
<td>201.4%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>4.8</td>
<td>3.8</td>
<td>78.9%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>7.9</td>
<td>0.6</td>
<td>8.0%</td>
</tr>
<tr>
<td>Sweden</td>
<td>19.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hungary</td>
<td>4.3</td>
<td>4.3</td>
<td>100.0%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>18.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>13.0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: own calculation based on Eurostat data

So if it is known fact that extreme difference in the overall level of the minimum wage are a significant obstacle to quick harmonisation of minimum wage, then pushing for such solutions by force would be utterly unjustified. On the other hand, maybe it would be a compromise solution to include the entire allowance in the posted worker’s minimum wage rather than just part of it, less the costs of travel, accommodation and board. Such solution would surely contribute to reducing the asymmetry of competition which can be seen in respective states. This, however, would require a political consensus, which is well founded in CJEU rulings. A daily allowance intended to ensure the social protection of the workers concerned, making up for the disadvantages entailed by the posting as a result of the workers being removed from their usual environment, was qualified by CJEU as an allowance payable to the posted worker, in accordance with Article 3 Section 7, second subparagraph of Directive 96/71 and is considered to be part of the minimum wage, unless it includes reimbursement of expenditure actually incurred on account of the posting (such as expenditure on travel, board and lodging)32.

It must be borne in mind, however, that EU Member States that are catching up have a much lower economic perform-
ance. For the states of the so called "new European Union" social dumping as per the inadequate extended interpretation
offered in MiLoG and Loi Macron amounts to blocking the growth opportunities or, in other words, blocking the oppor-
tunities for adequate growth and becoming self-reliant. Perhaps, as observed in EU road transport, the measures aimed
to increase the minimum wage under the banner of veto to social dumping, are in fact what Ian Bremmer calls state capi-
talism and have little to do with the declared protection of workers or equal pay for equal work pursuant to Article 157
of the TFEU. This would be the replacing the Smithian metaphor of the "invisible hand of the market" with the visible hand
of the strong state capitalism and giving the state the leading role in economy, implemented in the EU under the pretext
of harmonisation, but not necessarily actual equality. This does not mean nationalising a specific economy (especially
in the states of the so called "old European Union") but rather returning mentally and actually to regulating the subjective
logic of the functioning of the internal market characterised by asymmetry. Social dumping is an attempt at addressing
market control and wealth accumulation to ensure maintaining competitive advantages for as long as possible or even
permanently through legislative interference with geoeconomically comparative advantages.

One also needs to bear in mind that thus interpreted fight against social dumping as per MiLoG and Loi Macron minimum
wage laws, is in contradiction not only with the approach of the European Parliament to social dumping in the EU as it
paves the way to deepening the shadow economy and undeclared work, and as such it stands in opposition to the EU
policy on prevention of tax evasion. Indeed, as demonstrated by research, the share of undeclared work in total workforce
exceeded 20% in as many as 7 states, amounting in 2015 to 53% in Cyprus, 46.7% in Greece, 33% in Ireland, 22.4% in Italy
and Portugal, 21.7% in the United Kingdom, 21.6% in Poland\textsuperscript{33}, and the additional calculation of the risk of increasing
shadow economy in road transport in the context of MiLoG and Loi Macron is presented in section three of the report.

\textsuperscript{33} European Semester Thematic Factsheet, Undeclared work, European Commission, Brussels, 10.11.2016, p. 3.
3. MACROECONOMIC CONSEQUENCES OF THE MILOG LAW AND MACRON LAW IN EUROPEAN UNION MEMBER STATES FOR THE FURTHER ECONOMIC GROWTH AND ENTREPRENEURSHIP

3.1. Introduction to Research

The road truck transport is a significant industry in the economy of many European Union Member States, measured, if only, by the share of the Gross Domestic Product, number of employees or the number of companies operating in the sector, the structure of transport services. This type of data were the point of departure for the analysis conducted for this paper for all Member States jointly and each of them individually.

The report presented aims to answer, from the economic perspective, the question of how the change of local law in Germany and France, regarding minimum hourly wage will impact such an important sector that is road truck transport. The point of departure for the analysis was the aforementioned data on road truck transport. Moreover, the available reports of international organisations that investigate this phenomenon were also used in the analysis.

The report also used the available and the most comparable data from European statistics, and their basic source was Eurostat statistical databases.

The report was divided into three principal parts. The first one relates to methodological assumptions applied by the report authors, as it is important to understand the logic of the analyses conducted using various numerical research methods. The next part presents aggregate analysis results for all European Union Member States, from which it follows clearly how the introduction of the new minimum wage regulations in Germany and France affects the sector in many European countries. The report also uses an individual approach to every European Union Member State and this part of the report presents data regarding road truck transport and labour costs for respective countries, collated in comparative and analytical manner.

3.2. Wages, labour costs, impact on increasing the shadow economy

Employee hiring can be especially sensitive to high level of minimum wage, which is why most countries set its level separately and there are differences in the solutions applied. 26 out of 34 OECD member states have some forms of national minimum wage, others have effective collective bargaining, which are, through administrative means, extended to include unaffiliated companies and employees. The main features of statutory regulations vary across the countries, with the main differences regarding the relationship to average wage, differentiation by age, region, indexation factors and the role of governmental bodies and social partners in setting the minimum wage.

The analysis, due to the scope of the study, which included European Union Member States, uses data published by Eurostat and relating to the monthly minimum wage in Member States. Considering that the object of deliberations is the hourly minimum wage rate introduced in Germany and France, own calculation was conducted, yielding the minimum wage rate in respective European Union Member States.

In international statistics minimum wages are very often compared in relation to average wage, both in respective countries and between them. However, this measure significantly depends on how the average and minimum wage are measured. For the purpose of this analysis, a decision was made to use a different indicator, i.e. PPS instead of the average wage, which is probably a better background for indicating the purchasing power of the minimum wage in respective countries. In particular, it is a better measure for international comparisons, which illustrates the vast differentiation of the distribution of wages between the countries with respect to their purchasing power. The European Commission, in its reports on labour market, including wages and labour costs, presents data related to median hourly wages, presenting their PPS value for each Member State. These data were used in an analytical model which helped set a EUR value of the hourly minimum

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16 In the calculations, 21 work days per month were assumed for all countries and own calculation was conducted based on data from ILO, Eurostat and national statistics related to the average number of working hours per work day.
17 According to Eurostat glossary “Purchasing Power Standard (PPS) is an artificial currency unit. Theoretically, one PPS can buy the same amount of goods and services in each country. However, price differences across borders mean that different amounts of national currency units are needed for the same goods and services depending on the country. PPS are derived by dividing any economic aggregate of a country in national currency by its respective purchasing power parities. PPS is the technical term used by Eurostat for the common currency in which national accounts aggregates are expressed when adjusted for price level differences using PPPs. Thus, PPPs can be interpreted as the exchange rate of the PPS against the euro.”; http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Purchasing_power_standard_(PPS); [10.01.2017].
wage rate for each country, having the same purchasing power expressed in PPS, corresponding to the purchasing power (in PPS) of the minimum wage of EUR 8.5 in Germany. All throughout the analysis, the report refers to the hourly minimum wage in Germany rather than to the higher hourly rate in effect in France, which makes the study quite conservative. Therefore, it is hard to call their assumptions overly optimistic.

In addition, to show how setting an hourly minimum wage rate at EUR 8.5 in Germany will translate into the increase in labour costs of entrepreneurs from other EU Member States who provide transport services in its territory, the available average hourly income of employees from the transport and logistics sector was analysed. Based on data published in this respect by Eurostat 39, it was possible to establish a gap between the minimum hourly wage in Germany and the average hourly wage in the transport and logistics sector.

The hourly wage gap calculated this way was used in further deliberations on determining whether and how it may contribute to the increase in labour costs in respective EU Member States providing transport services, and thus increase the temptation driving those companies into the shadow economy. To answer thus formulated research question, the results of Professor Friedrich Schneider’s model were used. Professor Schneider has been, for many years, an eminent researcher studying the impact of respective economic aggregates on the propensity of economic entities to enter the shadow economy. The analysis of literature clearly indicates that transport companies providing services in the countries where the hourly minimum wage rate is markedly higher than the average hourly wage in their home country will be more likely to enter the shadow economy. To determine what percentage of the gap between hourly wage rates will enter the shadow economy, shadow economy indicators resulting from professor Schneider’s model were used for respective European Union Member States, with shadow economy defined as a percentage of GDP 40.

3.3. Road transport, freight

One of the major indicators analysed for the purposes of this paper is the scale of services provided by transport companies which do not have a registered office in the country where services are provided, the so-called cabotage. According to the data contained in the documents of European Commission, cabotage increased by 50% in the years 2004 to 2012 and by further 20% in 2013. Hence it is a dynamically growing area of services 41. However, some experts talk of incomplete scope of data held by Eurostat, e.g. in the European Parliament’s report Employment Conditions in the International Road Haulage Sector 42 there are direct mentions and examples that Eurostat statistics on cabotage operations fail to reflect the real extent of the practice in Europe 43.

In order to apply the widest possible scope of data on cabotage available for all European Union Member States, a very conservative (and the most objective, according to the Authors) approach was adopted consisting in analysing cabotage data collected in different countries in 2010, and published in 2014 in the European Commission’s report Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union 44. Based on these data, a structure was presented of cabotage services provided by companies from European Union Member States in two selected countries, i.e. France and Germany, where a decision was made to increase the minimum hourly rate, which should be applied to cabotage services.

Moreover, for other analyses, data on road transport sector from Statistical Pocketbook 45 published in 2016 were used.

39 To calculate the gap, data from all EU Member States for all companies (irrespective of the size) were used, if available; in others, data from companies with over 10 employees were used; the principal source of data was Eurostat; http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=earn_ses14_13&lang=en; [10.01.2017].
40 Schneider F.; Estimating the Size of the Shadow Economies of Highly-Developed Countries: Some New Results; p. 16.
3.4. The impact of minimum wage increase in transport on the size of shadow economy

The shadow economy comprises legal business activities that are performed outside the reach of government authorities. These activities typically fall into two categories that remain common across Europe. The first is undeclared work, which accounts for roughly two-thirds of the shadow economy. It includes wages that workers and businesses do not declare to the government to avoid taxes or documentation. The other one-third comes from underreporting, which is when businesses primarily those that deal heavily in cash, such as small shops, bars, and taxis report only part of their income to avoid some of the tax burden.

The average size of the shadow economy in 28 EU countries was 22.6 per cent in 2003 and decreased to 18.6 per cent (of official GDP) in 2014. We also consider the most important driving forces of the shadow economy. The biggest ones are with 14.6 per cent unemployment and self-employment, followed by tax morale with 14.5 per cent and GDP growth with 14.3 per cent. Prof. Schneider new paper presents the various method of estimating the size of shadow economy and show latest estimate for the size of shadow economy of 36 developed countries.

When applying the results of Prof. F. Schneider’s research, in particular applying the ratio of the propensity to enter the shadow economy to the calculated gap in the average hourly wage in transport and logistics compared to Germany (EUR/h), one can conclude that at least for 13 European Union Member States this can increase the propensity of entrepreneurs to move part of their business to the shadow economy. This tendency may stem from the significant increase in the labour costs, which, for transport companies, represent at least 30% of the overheads. The need to introduce an increase in the hourly wage even if only for individuals engaged in international services, in the order of 306% in Bulgaria to 7.9% in Portugal, represents a real threat that entrepreneurs will start taking measures aimed to diminish the costs, not always making recourse to legal solutions. If we would like to examine how much the licit circulation will lose in terms of yearly wages of road, freight and international transport workers, then, taking account of the mark-up on wages, this loss will be from EUR 398.1 million for Poland to EUR 6.2 million for Slovenia. In the analysed case, the share of remuneration cost which could move to shadow economy, in relation to the size of Gross Domestic Product for respective EU states, is between 0.01% (Portugal, Greece) and 0.49% (Bulgaria), while the share for the Union as a whole is 0.01% (fig. 10-12).

In such cases, at least in the 13 member states in question the tax gap will grow and social insurance systems, which are already in a difficult situation due to ageing society, will lose some of their revenues.

Figure 10. Contribution of remuneration cost to shadow economy as a result of increasing the average wage in transport and logistics up to the minimum wage in Germany (in EUR/h per employee)

Source: own study based on application of MIMIC method for estimation of the shadow economy
Figure 11. Annual contribution of remuneration cost to shadow economy as a result of increasing the average wage in transport and logistics up to the minimum wage in Germany (in EUR millions)

Source: own study based on application of MIMIC method for estimation of the shadow economy

Figure 12. Share of the shadow economy increase as a result of increasing the average wage in transport and logistics up to the minimum wage in Germany, in the Gross Domestic Product in a given country.

Source: own study based on application of MIMIC method for estimation of the shadow economy
CONCLUSIONS AND RECOMMENDATIONS

1. It seems that Loi Macron and MiLoG minimum wage laws are in conflict with Article 56 and Article 58 of the Treaty on the Functioning of the European Union, violating the principle of freedom to provide services – particularly through impeding access to the German and French markets, as well as introducing hidden discrimination while not respecting the principle of proportionality. Acceptance of such conflicting approach within one of EU’s fundamental policies would create a major precedent hampering future development of the EU, which may lead to other irreversible and protectionist decisions made by individual states, resulting in a revision of other EU policies, a slowdown in future integration and a rise of euroscepticism. One recommended approach is the introduction of variable harmonisation of minimum wage rates at a European level, taking into account the purchasing power parity in each member state and subject to further standardisation, in line with the economic development achieved by each state.

2. As a result of inadequate and broadly interpreted German and French minimum wage laws, there will be a shift of economic development and entrepreneurship in the EU in the direction of widening the existing competitiveness gap and pursuing individual economic interests rather than those of the Community. These phenomena will have the largest negative impact on GDP in countries such as Bulgaria and Lithuania, causing a 0.43% to 0.49% increase in the value of their shadow economy as expressed in GDP. Meanwhile, the nominal value of the shadow economy in the EU road sector may reach EUR 1.4 billion per year.

3. Regulation of the road transport sector in accordance with the MiLoG and Loi Marcon minimum wage laws may result in a significant reduction of the volume of cabotage services provided in Germany and France, mostly to the disadvantage of: Spain, Lithuania, Poland, the Czech Republic, Latvia, Hungary, Romania, Slovakia and Slovenia.

4. 17 EU Member States have a minimum wage that is much below the minimum wage level adopted in MiLoG (EUR 8.50). In Bulgaria, the minimum wage is as much as 673% lower than in Germany, in Romania it’s 554% lower and in Lithuania it’s 372% lower. This means that we cannot speak of social dumping of the "new European Union" states, but of an attempt at state protectionism by the states of the so called "old European Union", which by introducing domestic legislation lower the competitiveness of other states, and might make it impossible to conduct transport operations on the territory of Germany and France for other states, including: Bulgaria, Romania, Lithuania, the Czech Republic, Hungary, Latvia, Croatia, Slovakia, Poland, Estonia, Italy, Portugal, Greece, Malta, Slovenia, Spain, Cyprus. One way of reducing asymmetric competition might be by differentiating labour costs according to purchasing power parity, which might involve the incorporation of travel, accommodation and boarding expenses in minimum wage rates within the framework of full harmonisation and liberalisation of the EU internal transport policy.

5. Implementation of the broadly interpreted MiLoG in the German road transport sector will be detrimental to Germany itself on account of the existing deficit of skilled trades workers and the need to acquire foreign workers, mostly refugees. (According to Bertelsmann Institute research, the number of persons employed in Germany will decrease by 36% by 2050, which might result in a significant rise of labour costs combined with a sustained decrease in labour supply, contributing to an inflation spiral causing a loss of the currency’s purchasing power, which might have particularly negative consequences for Germany’s large retired population).

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REFERENCES

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13. European Semester Thematic Factsheet, Undeclared work, European Commission, Brussels, 10.1 1.2016, p. 3.
18. German minimum wage law, MiLoG, Ministry of Infrastructure and Construction, Warsaw, on 3 December 2015.
31. Rath B., Seibt C., Freight Vision 2050, EFP Brief No. 231, University of Applied Sciences Upper Austria, Vienna University of Economics and Business, Austria, February 2012.
40. The applicability of the German minimum wage rate to drivers performing international or cabotage services in Germany. Information Material of the Ministry of Infrastructure and Construction, Warsaw 2016.
1. AUSTRIA

Gross Domestic Product (EUR millions) 322,539

Turnover (EUR millions) 9,087
Share of GDP 2.8%
Volume of carriage (thousand tons) 325,475
Staffing (thousands) 57.9
Number of companies 6,570

Data for 2013 Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

Volume of carriage (thousand tons) 588,007
including:
• cabotage carried out in Germany 73.5%
• cabotage carried out in France 4.6%
• jointly cabotage carried out in Germany and France 78.1%

Data for 2010; Source: Eurostat
2. BELGIUM

<table>
<thead>
<tr>
<th>Gross Domestic Product (EUR millions)</th>
<th>391,712</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Road freight transport</strong></td>
<td></td>
</tr>
<tr>
<td>Turnover (EUR millions)</td>
<td>10,990</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>2.8%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>300,608</td>
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<tr>
<td>Staffing (thousands)</td>
<td>59.9</td>
</tr>
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<td>Number of companies</td>
<td>8,201</td>
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</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>1,341,334</th>
</tr>
</thead>
<tbody>
<tr>
<td>including:</td>
<td></td>
</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>16.2%</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>66.7%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>82.9%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
3. BULGARIA

Gross Domestic Product (EUR millions) 42,012

Road freight transport
Turnover (EUR millions) 2,904
Share of GDP 6.9%
Volume of carriage (thousand tons) 160,127
Staffing (thousands) 55.7
Number of companies 10,575

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage
Volume of carriage (thousand tons) 444,930
including:
• cabotage carried out in Germany 38.3%
• cabotage carried out in France -
• jointly cabotage carried out in Germany and France 38.3%

Data for 2010; Source: Eurostat
4. CROATIA

Gross Domestic Product (EUR millions) 43,487

Road freight transport

<table>
<thead>
<tr>
<th></th>
<th>EUR millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>1,204</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>2.8%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>67,512</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>20.1</td>
</tr>
<tr>
<td>Number of companies</td>
<td>5,891</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>N/A</th>
</tr>
</thead>
</table>

including:

- cabotage carried out in Germany N/A
- cabotage carried out in France N/A
- jointly cabotage carried out in Germany and France N/A

Data for 2010; Source: Eurostat
5. CYPRUS

### Gross Domestic Product (EUR millions)

- 18,118

### Road freight transport

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
<td>129</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>0.7%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>16,122</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>1.9</td>
</tr>
<tr>
<td>Number of companies</td>
<td>895</td>
</tr>
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</table>

Data for 2013; Source: Eurostat

#### Minimum hourly rate (in EUR) compared to EU Member States in 2015

![Graph showing minimum hourly rates compared to EU Member States in 2015](image)

Source: Eurostat, own estimates

#### Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

![Graph showing minimum hourly rates compared to EU Member States, taking account of purchasing power](image)

Source: Eurostat, own estimates

### Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>N/A</th>
</tr>
</thead>
</table>

including:

- cabotage carried out in Germany  N/A
- cabotage carried out in France N/A
- jointly cabotage carried out in Germany and France N/A

Data for 2010; Source: Eurostat
6. CZECH REPUBLIC

Gross Domestic Product (EUR millions) 157,742

Road freight transport
Turnover (EUR millions) 7,486
Share of GDP 4.7%
Volume of carriage (thousand tons) 351,517
Staffing (thousands) 113.9
Number of companies 30,739

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage
Volume of carriage (thousand tons) 528,349
including:
• cabotage carried out in Germany 62.1%
• cabotage carried out in France 13.5%
• jointly cabotage carried out in Germany and France 75.5%

Data for 2010; Source: Eurostat
7. DENMARK

Gross Domestic Product (EUR millions) 258,743

Road freight transport

<table>
<thead>
<tr>
<th>Turnover (EUR millions)</th>
<th>5,453</th>
</tr>
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<tbody>
<tr>
<td>Share of GDP</td>
<td>2.1%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>173,917</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>32.8</td>
</tr>
<tr>
<td>Number of companies</td>
<td>5,150</td>
</tr>
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</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>234,435</th>
</tr>
</thead>
<tbody>
<tr>
<td>including:</td>
<td></td>
</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>30.9%</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>18.9%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>49.8%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
8. ESTONIA

Gross Domestic Product (EUR millions) 18,890

Road freight transport

Turnover (EUR millions) 1,259
Share of GDP 6.7%
Volume of carriage (thousand tons) 31,080
Staffing (thousands) 15.1
Number of companies 2,873

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

Volume of carriage (thousand tons) 169,445

including:
• cabotage carried out in Germany 18.5%
• cabotage carried out in France -
• jointly cabotage carried out in Germany and France 18.5%

Data for 2010; Source: Eurostat
9. FINLAND

Gross Domestic Product (EUR millions) 203,338

<table>
<thead>
<tr>
<th>Road freight transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
</tr>
<tr>
<td>Share of GDP</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
</tr>
<tr>
<td>Number of companies</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>131,312</th>
</tr>
</thead>
</table>

including:

- cabotage carried out in Germany 21.8%
- cabotage carried out in France -
- jointly cabotage carried out in Germany and France 21.8%

Data for 2010; Source: Eurostat
10. FRANCE

**Gross Domestic Product (EUR millions)**
2,115,256

**Road freight transport**

<table>
<thead>
<tr>
<th>Turnover (EUR millions)</th>
<th>43,679</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of GDP</td>
<td>2.1%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>1,999,869</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>351.8</td>
</tr>
<tr>
<td>Number of companies</td>
<td>37,676</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

**Minimum hourly rate (in EUR) compared to EU Member States in 2015**

Source: Eurostat, own estimates

**Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany**

Source: Eurostat, own estimates

**Cabotage**

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>340,756</th>
</tr>
</thead>
</table>

including:

- cabotage carried out in Germany 18.6%
- cabotage carried out in France 18.6%
- jointly cabotage carried out in Germany and France 18.6%

Data for 2010; Source: Eurostat
11. GERMANY

Gross Domestic Product (EUR millions) 2,826,240

Road freight transport

- Turnover (EUR millions) 39,194
- Share of GDP 1.4%
- Volume of carriage (thousand tons) 2,938,702
- Staffing (thousands) 409.9
- Number of companies 35,852

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

- Volume of carriage (thousand tons) 1,931,078
  - cabotage carried out in Germany
  - cabotage carried out in France 26.1%
  - jointly cabotage carried out in Germany and France 26.1%

Data for 2010; Source: Eurostat
12. GREECE

Gross Domestic Product (EUR millions) 180,654

Road freight transport
- Turnover (EUR millions) 2,668
- Share of GDP 1.5%
- Volume of carriage (thousand tons) 480,794
- Staffing (thousands) 34.8
- Number of companies 19,351

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage
- Volume of carriage (thousand tons) N/A
- Including:
  - cabotage carried out in Germany N/A
  - cabotage carried out in France N/A
  - jointly cabotage carried out in Germany and France N/A

Data for 2010; Source: Eurostat
13. HUNGARY

Gross Domestic Product (EUR millions) 101,483

Road freight transport
Turnover (EUR millions) 4,813
Share of GDP 4.7%
Volume of carriage (thousand tons) 169,211
Staffing (thousands) 65.1
Number of companies 14,149

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage
Volume of carriage (thousand tons) 409,375
including:
- cabotage carried out in Germany 43.4%
- cabotage carried out in France 20.5%
- jointly cabotage carried out in Germany and France 63.9%

Data for 2010; Source: Eurostat
14. IRELAND

Gross Domestic Product (EUR millions) 180,209

Road freight transport

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
<td>2,855</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>1.6%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>107,222</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>19.8</td>
</tr>
<tr>
<td>Number of companies</td>
<td>3,939</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>329,094</td>
</tr>
<tr>
<td>including:</td>
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</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>~</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>2.4%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
15. ITALY

Gross Domestic Product (EUR millions) 1,604,599

**Road freight transport**
- Turnover (EUR millions) 42,562
- Share of GDP 2.7%
- Volume of carriage (thousand tons) 1,023,872
- Staffing (thousands) 304.9
- Number of companies 72,723

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage
- Volume of carriage (thousand tons) 474,542
  - cabotage carried out in Germany 55.7%
  - cabotage carried out in France 44.3%
  - jointly cabotage carried out in Germany and France 100.0%

Data for 2010; Source: Eurostat
16. LATVIA

Gross Domestic Product (EUR millions) 22,816

Road freight transport

Turnover (EUR millions) 1,389
Share of GDP 6.1%
Volume of carriage (thousand tons) 60,610
Staffing (thousands) 23.9
Number of companies 3,310

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

Volume of carriage (thousand tons) 192,934

including:
- cabotage carried out in Germany 31.5%
- cabotage carried out in France 38.1%
- jointly cabotage carried out in Germany and France 69.6%

Data for 2010; Source: Eurostat
17. LITHUANIA

Gross Domestic Product (EUR millions) 35,002

<table>
<thead>
<tr>
<th>Turnover (EUR millions)</th>
<th>3,260</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of GDP</td>
<td>9.3%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>52,346</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>52.8</td>
</tr>
<tr>
<td>Number of companies</td>
<td>4,891</td>
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</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
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<tbody>
<tr>
<td>including:</td>
<td></td>
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<tr>
<td>• cabotage carried out in Germany</td>
<td>37.0%</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>52.1%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>89.2%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
18. LUXEMBOURG

Gross Domestic Product (EUR millions) 46,353

Road freight transport

<table>
<thead>
<tr>
<th>Turnover (EUR millions)</th>
<th>1,201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of GDP</td>
<td>2.6%</td>
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<tr>
<td>Volume of carriage (thousand tons)</td>
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</tr>
<tr>
<td>Staffing (thousands)</td>
<td>7.6</td>
</tr>
<tr>
<td>Number of companies</td>
<td>461</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>2,061,816</th>
</tr>
</thead>
<tbody>
<tr>
<td>including:</td>
<td></td>
</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>22.4%</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>56.8%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>79.2%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
19. MALTA

Gross Domestic Product (EUR millions) 7,631

Road freight transport

<table>
<thead>
<tr>
<th>Turnover (EUR millions)</th>
<th>103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of GDP</td>
<td>1.4%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>-</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>1.1</td>
</tr>
<tr>
<td>Number of companies</td>
<td>404</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>including:</td>
<td></td>
</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>N/A</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>N/A</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
20. THE NETHERLANDS

Gross Domestic Product (EUR millions) 652,748

<table>
<thead>
<tr>
<th>Road freight transport</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
<td>19,275</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>3.0%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>604,692</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>113.5</td>
</tr>
<tr>
<td>Number of companies</td>
<td>11,156</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

| Volume of carriage (thousand tons) | 2,404,211 |

including:

- cabotage carried out in Germany 47.0%
- cabotage carried out in France 20.6%
- jointly cabotage carried out in Germany and France 67.6%

Data for 2010; Source: Eurostat
21. POLAND

Gross Domestic Product (EUR millions) 394,721

Road freight transport

<table>
<thead>
<tr>
<th>Turnover (EUR millions)</th>
<th>20,281</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of GDP</td>
<td>5.1%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>1,300,608</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>293.6</td>
</tr>
<tr>
<td>Number of companies</td>
<td>77,141</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>4,219,306</th>
</tr>
</thead>
</table>

including:

- cabotage carried out in Germany 55.2%
- cabotage carried out in France 20.6%
- jointly cabotage carried out in Germany and France 75.8%

Data for 2010; Source: Eurostat
22. PORTUGAL

Gross Domestic Product (EUR millions) 170,269

Road freight transport
- Turnover (EUR millions) 4,796
- Share of GDP 2.8%
- Volume of carriage (thousand tons) 148,177
- Staffing (thousands) 58.8
- Number of companies 8,287

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

Volume of carriage (thousand tons) 636,577
including:
- • cabotage carried out in Germany 7.0%
- • cabotage carried out in France 42.0%
- • jointly cabotage carried out in Germany and France 49.0%

Data for 2010; Source: Eurostat

Share of road freight transport in total revenues from transport

Share of cabotage in Germany and France in total cabotage
23. ROMANIA

<table>
<thead>
<tr>
<th>Gross Domestic Product (EUR millions)</th>
<th>144,254</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
<td>6,083</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>4.2%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>191,554</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>113.8</td>
</tr>
<tr>
<td>Number of companies</td>
<td>22,622</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>51,011</th>
</tr>
</thead>
<tbody>
<tr>
<td>including:</td>
<td></td>
</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>37.0%</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>18.3%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>55.3%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
24. SLOVAKIA

**Gross Domestic Product (EUR millions)** 74,170

**Road freight transport**
- **Turnover (EUR millions)** 2,961
- **Share of GDP** 4.0%
- **Volume of carriage (thousand tons)** 129,032
- **Staffing (thousands)** 38.9
- **Number of companies** 8,105

Data for 2013; Source: Eurostat

**Minimum hourly rate (in EUR) compared to EU Member States in 2015**

Source: Eurostat, own estimates

**Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany**

Source: Eurostat, own estimates

**Cabotage**
- **Volume of carriage (thousand tons)** 485,537
- Incl.:
  - cabotage carried out in Germany 28.0%
  - cabotage carried out in France 25.1%
  - jointly cabotage carried out in Germany and France 53.1%

Data for 2010; Source: Eurostat
25. SLOVENIA

<table>
<thead>
<tr>
<th>Gross Domestic Product (EUR millions)</th>
<th>35,917</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
<td>2,118</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>5.9%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>65,340</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>20.4</td>
</tr>
<tr>
<td>Number of companies</td>
<td>5,561</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>384,865</th>
</tr>
</thead>
<tbody>
<tr>
<td>including:</td>
<td></td>
</tr>
<tr>
<td>• cabotage carried out in Germany</td>
<td>46.6%</td>
</tr>
<tr>
<td>• cabotage carried out in France</td>
<td>5.1%</td>
</tr>
<tr>
<td>• jointly cabotage carried out in Germany and France</td>
<td>51.7%</td>
</tr>
</tbody>
</table>

Data for 2010; Source: Eurostat
### 26. SPAIN

**Gross Domestic Product (EUR millions)** 1,025,634

**Turnover (EUR millions)** 29,996

**Share of GDP** 2.9%

**Volume of carriage (thousand tons)** 1,124,480

**Staffing (thousands)** 305.8

**Number of companies** 108,173

Data for 2013; Source: Eurostat

**Minimum hourly rate (in EUR) compared to EU Member States in 2015**

Source: Eurostat, own estimates

**Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany**

Source: Eurostat, own estimates

**Cabotage**

<table>
<thead>
<tr>
<th>Volume of carriage (thousand tons)</th>
<th>1,624,972</th>
</tr>
</thead>
</table>

- **Cabotage carried out in Germany** 8.5%
- **Cabotage carried out in France** 87.1%
- **Jointly cabotage carried out in Germany and France** 95.6%

Data for 2010; Source: Eurostat
27. SWEDEN

Gross Domestic Product (EUR millions) 435,752

<table>
<thead>
<tr>
<th>Road freight transport</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (EUR millions)</td>
<td>11,191</td>
</tr>
<tr>
<td>Share of GDP</td>
<td>2.6%</td>
</tr>
<tr>
<td>Volume of carriage (thousand tons)</td>
<td>281,177</td>
</tr>
<tr>
<td>Staffing (thousands)</td>
<td>75,9</td>
</tr>
<tr>
<td>Number of companies</td>
<td>15,006</td>
</tr>
</tbody>
</table>

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

Volume of carriage (thousand tons) 121,057

including:

- cabotage carried out in Germany 94.6%
- cabotage carried out in France -
- jointly cabotage carried out in Germany and France 94.6%

Data for 2010; Source: Eurostat

Share of cabotage in Germany and France in total cabotage

Source: Eurostat, own estimates

Share of road freight transport in total revenues from transport

Source: Eurostat, own estimates
28. UNITED KINGDOM

Gross Domestic Product (EUR millions) 2,048,328

Road freight transport

Turnover (EUR millions) 28,222
Share of GDP 1.4%
Volume of carriage (thousand tons) 1,507,108
Staffing (thousands) 242.5
Number of companies 33,527

Data for 2013; Source: Eurostat

Minimum hourly rate (in EUR) compared to EU Member States in 2015

Source: Eurostat, own estimates

Minimum hourly rate (in EUR) compared to EU Member States, taking account of the purchasing power equivalent to the minimum hourly rate in Germany

Source: Eurostat, own estimates

Cabotage

Volume of carriage (thousand tons) 140,630

including:
• cabotage carried out in Germany 8.1%
• cabotage carried out in France 18.3%
• jointly cabotage carried out in Germany and France 26.5%

Data for 2010; Source: Eurostat
REPORT

The Impact of Regulation of the Road Transport Sector on Entrepreneurship and Economic Growth in the European Union

Prof. Konrad Raczkowski • University of Social Sciences, Poland
Prof. Friedrich Schneider • Johannes Kepler University of Linz, Austria
Prof. Florent Laroche • University of Lyon, France