

## **Trade exposure of the EBRD countries<sup>1</sup> in the EU**

### **Potential value chain disruptions in a no-deal Brexit outcome**

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#### **Executive summary**

**A no-deal Brexit outcome is expected to have extensive effects, not only on direct trade between the EBRD countries in the EU and the United Kingdom (UK), but also on indirect exports through value chain integration within the European Union (EU)** (e.g. car parts exported from the Slovak Republic to Germany, assembled there and then exported as a final product to the UK). We find that in the case of the UK leaving the EU under a “hard Brexit” scenario, 6.8 per cent of the overall EBRD countries’ domestic value-added export trade would be affected by potential trade disruptions of the direct and indirect trade linkages with the UK.<sup>3</sup> Such a scenario would not only affect the trade volume of US\$ 32.9 billion of direct domestic value-added exports to the UK in 2015, but would also have an impact on the indirect domestic value-added exports (US\$ 6.5 billion) via value chain linkages with other EU member states’ exports to the UK. Furthermore, the affected trade volume amounts, on average, to 0.9 per cent of total output of the EBRD countries in 2015, whereas the share is higher for countries such as Cyprus (1.9 per cent), Lithuania (1.3 per cent), Hungary (1.3 per cent) and Poland (1.2 per cent).<sup>4</sup>

**The 12 EBRD countries that are part of the EU – and Turkey as a member of the EU Customs Union – would also face modest value chain disruptions in certain economic sectors in the event of a no-deal Brexit in which various trade barriers would evolve and disrupt supply links between industries in the UK and the EU.** The EBRD countries have in absolute terms a higher exposure to trade disruptions in value chain linkages with the UK than vice versa; US\$ 7.5 billion of British inputs by a large share British business services were used as inputs in the production process of manufacturing exports of the EBRD countries in 2015. The UK also relies on foreign inputs for exports, but sourced only US\$ 4.8 billion of foreign inputs from the EBRD countries in 2015, whereas a significant share of EBRD inputs was provided by the wholesale, retail and logistics services industries to the transport industry in the UK.

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<sup>1</sup> ‘EBRD countries’ as a term refers to the economies in which the EBRD invests.

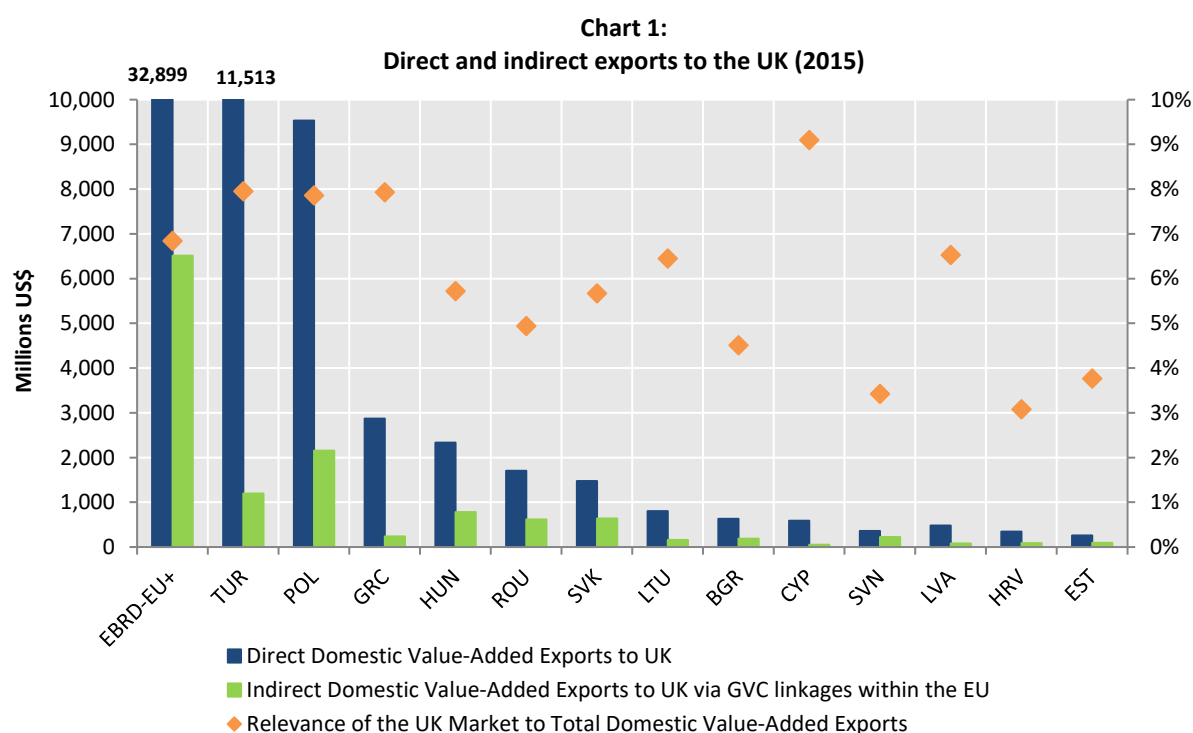
<sup>2</sup> This paper benefited from contributions from Rika Ishii (EPG) and Alexander Plekhanov (Office of the Chief Economist), EBRD.

<sup>3</sup> Exports can be broken down into domestic value-added and foreign value-added components. Only the domestic value-added part of exports is used for the analysis in order to determine the real impact on the domestic economies without taking into account foreign imported inputs.

<sup>4</sup> This analysis is based on the OECD’s “Trade in Value Added” (2018) database, which is used to analyse the global value chain (GVC) linkages between EBRD countries and the UK for the latest available year, 2015. The EBRD countries of interest for this analysis are the EU-12 member states and Turkey as a member of the EU Customs Union.

## 1) Relevance of the UK for EBRD countries' exports

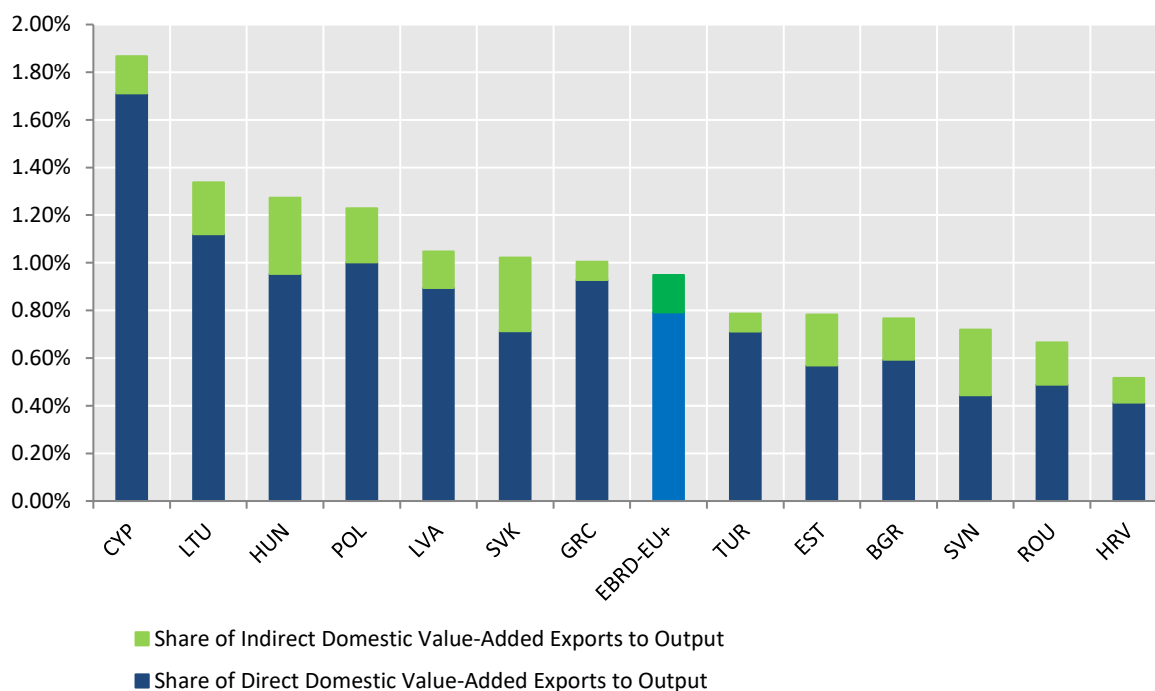
In the event of the UK leaving the EU with no deal in place, trade disruptions could affect 6.8 per cent of the EBRD countries' domestic value-added exports. The EBRD-EU countries and Turkey exported US\$ 39.4 billion of domestic value-added (without taking foreign inputs of the exports into account) to the UK in 2015. While the major share of US\$ 32.9 billion was exported directly to the UK, US\$ 6.5 billion were exported through value chain integration with other EU member states' exports to the UK. Indirect exports to the UK account for a large share of overall domestic value-added exports to the UK for Slovenia (38 per cent), Slovak Republic (30 per cent) and Romania (27 per cent), indicating the important role of value chain linkages for these countries. Furthermore, the UK represents an important market for EBRD countries' exports, accounting for 6.8 per cent of total domestic value-added exports. The share is even higher for Cyprus, Turkey, Poland and Greece, for which the UK market accounts for 7.9 - 9.1 per cent of total domestic value-added exports. In absolute terms, both Turkey and Poland have the highest value-added exports volumes with each around US\$ 12 billion being directly and indirectly exported to the UK in 2015 (Chart 1).



Source: Authors' calculations, OECD (2018)

Even though the UK represents a large market for EBRD countries' exports, the affected trade volume is relatively small in domestic output terms. Domestic value-added exports to the UK amount on average to 0.9 per cent of total output of the EBRD countries in 2015, whereas trade disruptions would have a stronger impact on countries such as Cyprus (1.9 per cent), Lithuania (1.3 per cent), Hungary (1.3 per cent) and Poland (1.2 per cent). These effects would be relatively small for Croatia (0.5 per cent) and Romania (0.7 per cent) (Chart 2).

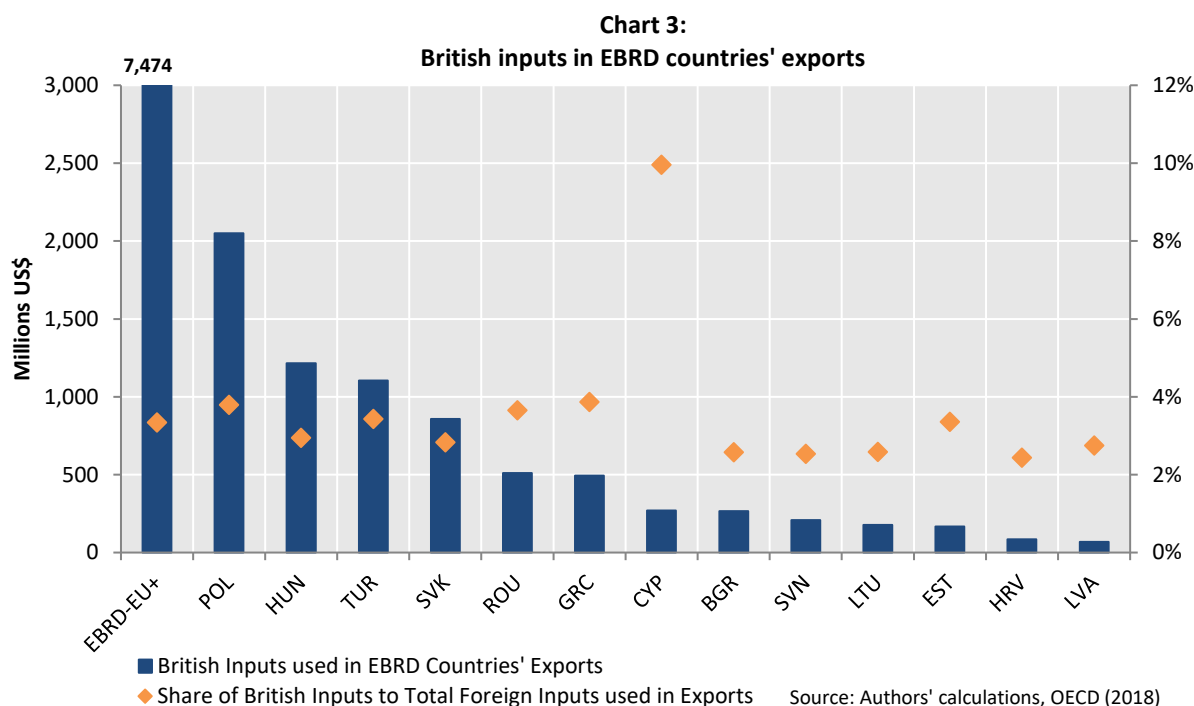
**Chart 2:**  
**Exports to the UK as a share of domestic output (2015)**



## 2) Value chain linkages between the UK and the EBRD countries

On the verge of a potential no-deal Brexit outcome, it is also important to look not only at the direct and indirect export volume between the UK and the EBRD countries but also at the value chain integration of the industries in order to fully understand and analyse the impact of the eventual trade disruptions.

The UK and the EBRD countries show generally relatively weak value chain linkages. Only 4.7 per cent of foreign inputs in British exports are sourced from the EBRD region and 3.3 per cent of foreign inputs in EBRD countries' exports are sourced from the UK. In absolute terms, British firm exports consisted of foreign value-added inputs worth US\$ 103 billion (15 per cent) in 2015, whereas inputs worth only US\$ 4.8 billion were sourced from the EBRD countries. Out of this US\$ 4.8 billion, Poland and Turkey were the countries with the highest volume of inputs sold to the UK, with each providing inputs worth around US\$ 1.5 billion. However, the EBRD countries imported from the UK US\$ 7.5 billion of foreign value-added inputs for further exportation in 2015, with Poland (US\$ 2.1 billion), Hungary (US\$ 1.2 billion) and Turkey (US\$ 1.1 billion) showing the largest volumes. This represents in relative terms only 3.3 per cent of the total foreign value-added use of the EBRD countries, whereas countries such as Cyprus (10 per cent), Greece (3.9 per cent) and Poland (3.8 per cent) are relying, to a larger extent, on British inputs for their exports production (Chart 3).



**On a sectoral level, EBRD countries provide both manufacturing (US \$2 billion) and services (US\$ 2.4 billion) inputs mainly for the exports of the British manufacturing sector.** The UK sources EBRD countries' inputs mainly from the chemicals, metals and transport industries in the manufacturing sector and relies on wholesale, logistics and business services from the service sector in the EBRD region (Chart 4). A large part of these latter EBRD inputs are used in British manufacturing sector exports, with the transport industry sourcing 25 per cent of all EBRD inputs (US\$ 1.1 billion) in 2015 (Chart 5). This indicates that the service sector inputs exported by the EBRD countries are by a larger share integrated into exports of the British transport industry via value chain linkages.

**Chart 4: EBRD countries' source industries of inputs used in UK exports (in US\$ millions)**

| Sourcing Industries (2015) | Manufacturing |                  |               |                   |                |             |           |           |           | Services  |                      |       |                    |                   |
|----------------------------|---------------|------------------|---------------|-------------------|----------------|-------------|-----------|-----------|-----------|-----------|----------------------|-------|--------------------|-------------------|
|                            | Food Products | Textile Products | Wood Products | Chemical Products | Metal Products | Electronics | Machinery | Transport | Wholesale | Logistics | Food & Accommodation | ICT   | Financial Services | Business services |
| EBRD-EU+                   | 65.5          | 65.8             | 134.4         | 532.3             | 469.4          | 221.8       | 87.9      | 319.2     | 815.5     | 403.8     | 30.0                 | 187.0 | 162.7              | 447.9             |
| POL                        | 30.1          | 12.2             | 54.4          | 199.1             | 105.1          | 68.1        | 28.3      | 85.7      | 335.6     | 90.5      | 5.8                  | 72.1  | 46.6               | 158.1             |
| TUR                        | 14.3          | 38.6             | 26.4          | 135.7             | 252.9          | 63.6        | 16.8      | 92.4      | 249.6     | 132.6     | 15.7                 | 23.5  | 41.9               | 72.3              |
| HUN                        | 3.7           | 1.5              | 6.1           | 57.6              | 19.7           | 35.7        | 22.7      | 63.0      | 45.5      | 26.5      | 1.1                  | 22.4  | 9.7                | 80.2              |
| SVK                        | 1.7           | 1.8              | 7.8           | 25.8              | 31.3           | 20.1        | 6.1       | 43.0      | 45.4      | 20.3      | 1.3                  | 10.3  | 7.8                | 22.0              |
| ROU                        | 3.5           | 6.2              | 3.6           | 29.9              | 13.4           | 16.1        | 5.3       | 25.8      | 28.3      | 32.6      | 2.2                  | 21.9  | 9.8                | 31.1              |
| GRC                        | 4.8           | 0.7              | 1.0           | 19.7              | 19.1           | 4.0         | 2.2       | 0.8       | 26.5      | 52.5      | 0.8                  | 8.0   | 15.0               | 23.3              |
| LTU                        | 3.3           | 1.7              | 5.3           | 33.2              | 1.9            | 2.0         | 1.0       | 0.7       | 32.8      | 13.7      | 0.6                  | 3.0   | 1.5                | 7.3               |
| BGR                        | 1.1           | 1.0              | 0.9           | 10.2              | 5.3            | 3.1         | 1.5       | 1.2       | 12.4      | 8.1       | 0.7                  | 7.2   | 7.4                | 10.0              |
| SVN                        | 0.4           | 0.7              | 3.2           | 14.4              | 11.2           | 5.3         | 2.5       | 5.4       | 10.4      | 4.5       | 0.4                  | 4.1   | 2.4                | 10.4              |
| LVA                        | 0.7           | 0.2              | 18.0          | 1.6               | 1.4            | 1.0         | 0.3       | 0.2       | 14.1      | 8.0       | 0.4                  | 4.0   | 2.6                | 5.6               |
| CYP                        | 1.0           | 0.0              | 0.1           | 0.9               | 0.7            | 0.4         | 0.1       | 0.1       | 3.7       | 6.5       | 0.8                  | 3.6   | 14.1               | 15.9              |
| EST                        | 0.3           | 0.7              | 6.8           | 2.3               | 2.9            | 1.6         | 0.4       | 0.5       | 6.1       | 4.5       | 0.1                  | 4.3   | 1.8                | 6.4               |
| HRV                        | 0.6           | 0.5              | 0.8           | 1.9               | 4.5            | 0.8         | 0.7       | 0.4       | 5.1       | 3.5       | 0.1                  | 2.6   | 2.1                | 5.3               |

Source: Authors' calculations, OECD (2018)

Chart 5: UK exporting industries using inputs from the EBRD countries (in US\$ millions)

| UK Exporting Industries (2015) | Food Products | Textile Products | Wood Products | Chemical Products | Metal Products | Electronics | Machinery | Transport | Wholesale | Logistics | Food & Accommodation | ICT   | Financial Services | Business services |
|--------------------------------|---------------|------------------|---------------|-------------------|----------------|-------------|-----------|-----------|-----------|-----------|----------------------|-------|--------------------|-------------------|
| EBRD-EU+                       | 187.3         | 53.9             | 66.7          | 556.6             | 411.6          | 373.4       | 383.7     | 1,096.8   | 324.3     | 209.8     | 77.2                 | 153.8 | 307.5              | 290.4             |
| POL                            | 72.0          | 14.9             | 25.1          | 218.1             | 92.3           | 112.3       | 118.2     | 337.0     | 108.9     | 65.4      | 29.6                 | 57.1  | 108.4              | 102.6             |
| TUR                            | 43.6          | 22.9             | 15.6          | 125.5             | 226.3          | 140.1       | 152.8     | 406.5     | 87.6      | 44.3      | 17.9                 | 33.5  | 57.4               | 56.9              |
| HUN                            | 13.8          | 3.6              | 3.8           | 49.6              | 19.1           | 37.8        | 27.5      | 95.3      | 32.8      | 20.1      | 6.5                  | 18.2  | 38.5               | 43.8              |
| SVK                            | 7.7           | 1.8              | 3.3           | 26.3              | 14.9           | 32.0        | 23.0      | 81.5      | 20.5      | 10.1      | 3.4                  | 10.8  | 15.5               | 14.8              |
| ROU                            | 11.8          | 2.9              | 2.6           | 31.0              | 12.7           | 15.5        | 18.2      | 66.4      | 23.1      | 13.6      | 4.7                  | 9.3   | 22.4               | 18.6              |
| GRC                            | 14.5          | 2.0              | 1.7           | 32.6              | 16.1           | 10.1        | 11.7      | 28.0      | 13.6      | 28.1      | 5.2                  | 6.5   | 18.9               | 15.1              |
| LTU                            | 6.8           | 1.8              | 2.7           | 28.3              | 7.2            | 5.1         | 7.4       | 16.7      | 9.6       | 8.5       | 2.7                  | 3.8   | 8.1                | 7.2               |
| BGR                            | 4.2           | 1.1              | 0.8           | 12.4              | 6.0            | 5.6         | 6.2       | 15.2      | 6.3       | 4.3       | 1.7                  | 3.6   | 8.8                | 7.2               |
| SVN                            | 2.8           | 0.8              | 1.2           | 12.0              | 5.4            | 5.7         | 7.5       | 20.5      | 5.8       | 3.3       | 1.1                  | 3.1   | 5.9                | 5.5               |
| LVA                            | 3.0           | 0.7              | 6.8           | 6.4               | 3.9            | 3.1         | 3.7       | 11.3      | 5.9       | 3.2       | 1.5                  | 2.5   | 5.5                | 4.7               |
| CYP                            | 4.0           | 0.4              | 0.3           | 5.6               | 2.4            | 1.6         | 1.7       | 5.0       | 4.2       | 4.1       | 1.5                  | 2.2   | 10.0               | 7.3               |
| EST                            | 1.9           | 0.7              | 2.4           | 5.0               | 2.9            | 2.7         | 2.9       | 7.1       | 3.5       | 2.6       | 0.8                  | 1.9   | 4.5                | 3.7               |
| HRV                            | 1.2           | 0.3              | 0.4           | 3.8               | 2.4            | 1.8         | 2.9       | 6.3       | 2.5       | 2.2       | 0.6                  | 1.3   | 3.6                | 3.0               |

Source: Authors' calculations, OECD (2018)

Similarly, in the value chain perspective of the EBRD countries, British services activities represent an important role for EBRD countries' exports of manufacturing goods. The EBRD countries source mainly services inputs from the UK (US\$ 4.5 billion out of US\$ 7.5 billion), particularly British business service activities that consist of professional, scientific, technical, administrative and support service activities, accounting for around 19 per cent of all British inputs in EBRD countries' exports (US\$ 1.4 billion). Furthermore, 17 per cent (US\$ 1.3 billion) of all British inputs were used in exports of the transport industry in the EBRD countries, 15 per cent (US\$ 1.2 billion) in the chemicals products industry and 11 per cent (US\$ 0.8 billion) in the electronics industry (Chart 6).

Chart 6: EBRD countries' exporting industries using inputs from the UK (in US\$ millions)

| EBRD Countries' Exporting Industries (2015) | Food Products | Textile Products | Wood Products | Chemical Products | Metal Products | Electronics | Machinery | Transport | Wholesale | Logistics | Food & Accommodation | ICT   | Financial Services | Business Services |
|---|---------------|------------------|---------------|-------------------|----------------|-------------|-----------|-----------|-----------|-----------|----------------------|-------|--------------------|-------------------|
| EBRD-EU+                                    | 318.4         | 275.4            | 180.3         | 1157.3            | 634.7          | 783.6       | 330.9     | 1265.2    | 453.3     | 693.3     | 187.5                | 183.8 | 112.2              | 274.7             |
| POL   | 127.6         | 40.1             | 72.2          | 395.3             | 135.8          | 227.3       | 100.5     | 331.4     | 146.8     | 136.7     | 20.3                 | 65.2  | 14.6               | 67.5              |
| HUN   | 47.2          | 12.4             | 18.5          | 175.2             | 52.7           | 207.2       | 62.7      | 330.9     | 61.3      | 67.8      | 19.2                 | 26.3  | 4.9                | 63.4              |
| TUR   | 33.3          | 90.6             | 13.8          | 132.1             | 230.6          | 87.3        | 53.2      | 212.7     | 52.2      | 70.5      | 36.6                 | 2.7   | 4.5                | 2.5               |
| SVK   | 10.7          | 9.6              | 15.5          | 205.2             | 82.5           | 107.5       | 42.4      | 248.6     | 33.6      | 29.5      | 6.4                  | 10.4  | 5.1                | 20.2              |
| ROU   | 6.9           | 69.4             | 12.3          | 59.6              | 19.4           | 53.9        | 27.8      | 79.4      | 38.5      | 40.8      | 2.6                  | 19.3  | 1.4                | 37.0              |
| GRC   | 26.0          | 11.0             | 3.7           | 85.7              | 25.6           | 8.6         | 6.6       | 1.9       | 50.5      | 153.0     | 41.5                 | 12.1  | 16.6               | 14.2              |
| CYP   | 13.6          | 0.3              | 0.7           | 5.2               | 2.6            | 0.8         | 1.1       | 0.2       | 13.9      | 88.2      | 24.9                 | 11.2  | 51.8               | 34.7              |
| BGR   | 14.2          | 14.5             | 4.7           | 22.5              | 35.0           | 17.3        | 13.6      | 11.2      | 21.0      | 23.7      | 5.0                  | 11.1  | 2.8                | 12.5              |
| SVN   | 3.5           | 4.4              | 8.8           | 26.5              | 29.1           | 19.7        | 10.4      | 33.3      | 10.7      | 15.8      | 4.5                  | 6.3   | 2.3                | 5.5               |
| LTU   | 14.8          | 11.8             | 5.5           | 29.0              | 4.1            | 9.1         | 3.6       | 2.6       | 8.4       | 24.3      | 1.5                  | 2.5   | 0.5                | 3.0               |
| EST   | 8.4           | 5.4              | 12.4          | 12.4              | 10.0           | 36.8        | 5.2       | 7.9       | 6.5       | 20.5      | 12.0                 | 8.9   | 1.2                | 6.0               |
| HRV   | 7.1           | 3.2              | 4.2           | 4.2               | 4.2            | 4.4         | 2.5       | 3.9       | 5.1       | 9.6       | 8.9                  | 4.7   | 3.7                | 5.4               |
| LVA   | 5.1           | 2.7              | 8.0           | 4.4               | 3.1            | 3.7         | 1.3       | 1.2       | 4.8       | 12.9      | 4.1                  | 3.1   | 2.8                | 2.8               |

Source: Authors' calculations, OECD (2018)