

## **Size and Development of the Shadow Economy of 31 European and 5 other OECD Countries from 2003 to 2012: Some New Facts**

by

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In the Tables 1.1 to 1.4 the size and development of 31 European and of five non-European shadow economies over the period 2003-2012 is presented<sup>1</sup>. If we first look at the results of the average size of the shadow economy of the 27 European Union countries, we realize, that the shadow economy in the year 2003 was 22.3% (of official GDP), decreased to 19.3% in 2008 and increased to 19.8 % in 2009 and then decreased again to 18.4 % in 2012 (Table 1.1). If we compare the average of 31 European countries, in 2003 the average size was 22.4%, decreased to 19.4% in 2008, and increased to 19.9% in 2009 and decreased to 18.5 in 2012 (Table 1.2). If we consider the last 2 years (2011 and 2012) and compare them with the year 2008, we realize that in most countries we had again a decrease of the size and development of the shadow economy. This is due to the fact of the recovery from the world wide economic and financial crises. Hence the most important reason for this decrease is, that, if the official economy is recovering or booming, people have less incentives to undertake additional activities in the shadow economy and to earn extra “black” money. The only exception is Greece, where the recession of the official economy is so strong, that it even reduced the demand of the shadow economy activities due to the severe income losses of the Greece people; the Greek shadow economy will decrease to 22.5% of official GDP in 2012; a decrease of 1.4 percentage points compared to the year 2010!

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<sup>1</sup> The calculation of the size and development of the shadow economy is done with the MIMIC (Multiple Indicators and Multiple Courses) estimation procedure. As with the MIMIC estimation procedure one gets out only relative values, with the help of the currency demand approach for a few countries (Austria, Germany, Poland and Switzerland). These values have been calibrated into absolute ones. Source: Friedrich Schneider, Shadow Economy around the World: What do we really know?, European Journal of Political Economy, Vol. 21/2, September 2005, page 598-642.

Furthermore there are three different developments with respect to the size of the shadow economy:

- (1) The eastern countries or the new European Union members, like Bulgaria, like Cyprus, like the Czech Republic, like Latvia, like Lithuania, like Poland have a higher shadow economies than the “old” European Union countries, like Austria, Belgium, Germany, Italy; hence we have an increase of the size of the shadow economy from west to east.
- (2) Also we observe an increase of the size and development of the shadow economy from north to south. On average the southern European countries have considerable higher shadow economies than the one in Central and Western Europe. This can also be demonstrated looking at Figures 1 and 2.
- (3) The five other highly developed OECD countries (Australia, Canada, Japan, New Zealand and the United States in Table 1.3) have a much lower shadow economy about 10.1 % of GDP average in 2009 which decreased to 9.2% in 2012.

Figure 1: Size of the Shadow Economy of 31 European Countries in 2012 (in % of off. GDP)

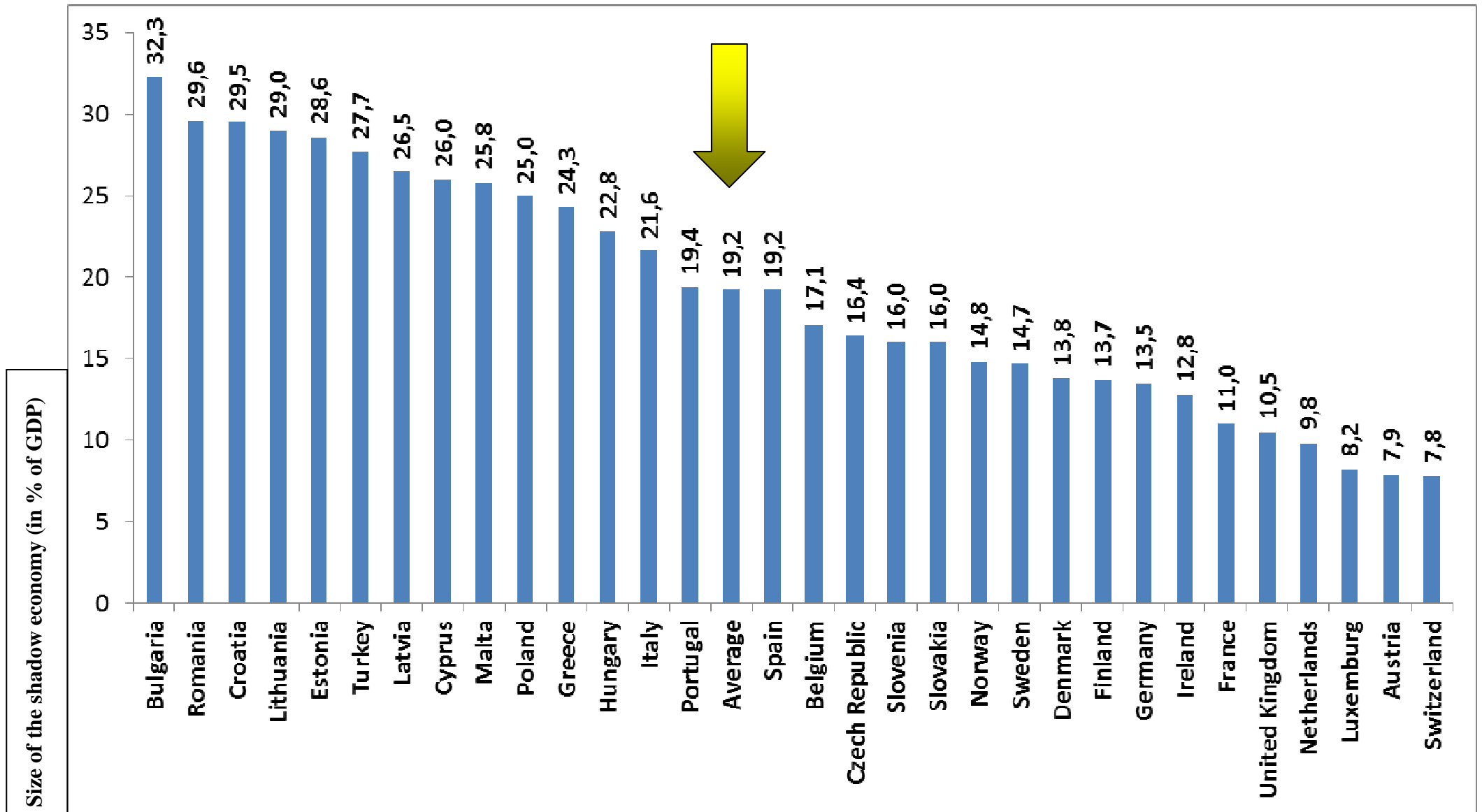
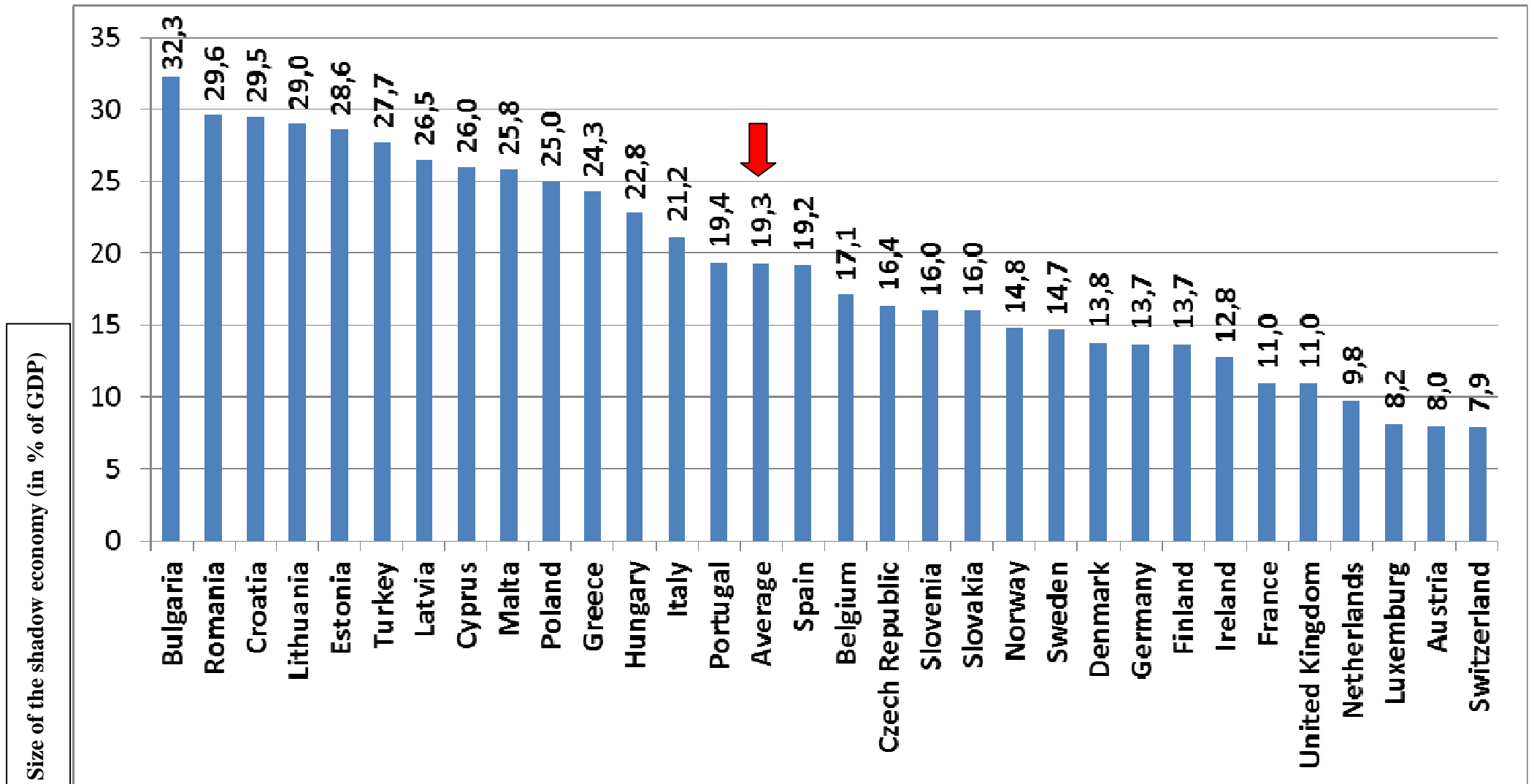


Figure 2: Size of the Shadow Economy of 31 European Countries in 2011 (in % of off. GDP)



**Table 1.1: Size of the Shadow Economy of 31 European Countries over 2003 – 2012 (in % of off. GDP)**

| Country / Year                   |             |             |             |             |             |             |             |             |             |             |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                  | 2003        | 2004        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        | 2011        | 2012        |
| Austria                          | 10.8        | 11          | 10.3        | 9.7         | 9.4         | 8.1         | 8.47        | 8.2         | 7.9         | 7.6         |
| Belgium                          | 21.4        | 20.7        | 20.1        | 19.2        | 18.3        | 17.5        | 17.8        | 17.4        | 17.1        | 16.8        |
| Bulgaria                         | 35.9        | 35.3        | 34.4        | 34          | 32.7        | 32.1        | 32.5        | 32.6        | 32.3        | 31.9        |
| Cyprus                           | 28.7        | 28.3        | 28.1        | 27.9        | 26.5        | 26          | 26.5        | 26.2        | 26          | 25.6        |
| Czech Republic                   | 19.5        | 19.1        | 18.5        | 18.1        | 17          | 16.6        | 16.9        | 16.7        | 16.4        | 16.0        |
| Denmark                          | 17.4        | 17.1        | 16.5        | 15.4        | 14.8        | 13.9        | 14.3        | 14          | 13.8        | 13.4        |
| Estonia                          | 30.7        | 30.8        | 30.2        | 29.6        | 29.5        | 29          | 29.6        | 29.3        | 28.6        | 28.2        |
| Finland                          | 17.6        | 17.2        | 16.6        | 15.3        | 14.5        | 13.8        | 14.2        | 14          | 13.7        | 13.3        |
| France                           | 14.7        | 14.3        | 13.8        | 12.4        | 11.8        | 11.1        | 11.6        | 11.3        | 11          | 10.8        |
| Germany                          | 17.1        | 16.1        | 15.4        | 15          | 14.7        | 14.2        | 14.6        | 13.9        | 13.7        | 13.3        |
| Greece                           | 28.2        | 28.1        | 27.6        | 26.2        | 25.1        | 24.3        | 25          | 25.4        | 24.3        | 24.0        |
| Hungary                          | 25          | 24.7        | 24.5        | 24.4        | 23.7        | 23          | 23.5        | 23.3        | 22.8        | 22.5        |
| Ireland                          | 15.4        | 15.2        | 14.8        | 13.4        | 12.7        | 12.2        | 13.1        | 13          | 12.8        | 12.7        |
| Italy                            | 26.1        | 25.2        | 24.4        | 23.2        | 22.3        | 21.4        | 22          | 21.8        | 21.2        | 21.6        |
| Latvia                           | 30.4        | 30          | 29.5        | 29          | 27.5        | 26.5        | 27.1        | 27.3        | 26.5        | 26.1        |
| Lithuania                        | 32          | 31.7        | 31.1        | 30.6        | 29.7        | 29.1        | 29.6        | 29.7        | 29.0        | 28.5        |
| Luxemburg (Grand-Duché)          | 9.8         | 9.8         | 9.9         | 10          | 9.4         | 8.5         | 8.8         | 8.4         | 8.2         | 8.2         |
| Malta                            | 26.7        | 26.7        | 26.9        | 27.2        | 26.4        | 25.8        | 25.9        | 26          | 25.8        | 25.3        |
| Netherlands                      | 12.7        | 12.5        | 12          | 10.9        | 10.1        | 9.6         | 10.2        | 10          | 9.8         | 9.5         |
| Poland                           | 27.7        | 27.4        | 27.1        | 26.8        | 26          | 25.3        | 25.9        | 25.4        | 25          | 24.4        |
| Portugal                         | 22.2        | 21.7        | 21.2        | 20.1        | 19.2        | 18.7        | 19.5        | 19.2        | 19.4        | 19.4        |
| Romania                          | 33.6        | 32.5        | 32.2        | 31.4        | 30.2        | 29.4        | 29.4        | 29.8        | 29.6        | 29.1        |
| Slovenia                         | 26.7        | 26.5        | 26          | 25.8        | 24.7        | 24          | 24.6        | 24.3        | 24.1        | 23.6        |
| Spain                            | 22.2        | 21.9        | 21.3        | 20.2        | 19.3        | 18.4        | 19.5        | 19.4        | 19.2        | 19.2        |
| Slovakia                         | 18.4        | 18.2        | 17.6        | 17.3        | 16.8        | 16          | 16.8        | 16.4        | 16          | 15.5        |
| Sweden                           | 18.6        | 18.1        | 17.5        | 16.2        | 15.6        | 14.9        | 15.4        | 15          | 14.7        | 14.3        |
| United Kingdom                   | 12.2        | 12.3        | 12          | 11.1        | 10.6        | 10.1        | 10.9        | 10.7        | 10.5        | 10.1        |
| <b>27 EU-Countries / Average</b> | <b>22.3</b> | <b>21.9</b> | <b>21.5</b> | <b>20.8</b> | <b>19.9</b> | <b>19.3</b> | <b>19.8</b> | <b>19.5</b> | <b>19.2</b> | <b>18.4</b> |

Source: Own Calculations, Dec. 2011

**Table 1.2: Size of the Shadow Economy of 4 European Countries (Non EU-Members) over 2003 – 2012 (in % of off. GDP)**

| Country / Year                              | 2003        | 2004        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        | 2011        | 2012        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Croatia                                     | 32.3        | 32.3        | 31.5        | 31.2        | 30.4        | 29.6        | 30.1        | 29.8        | 29.5        | 29.0        |
| Norway                                      | 18.6        | 18.2        | 17.6        | 16.1        | 15.4        | 14.7        | 15.3        | 15.1        | 14.8        | 14.2        |
| Switzerland                                 | 9.5         | 9.4         | 9           | 8.5         | 8.2         | 7.9         | 8.3         | 8.1         | 7.8         | 7.6         |
| Turkey                                      | 32.2        | 31.5        | 30.7        | 30.4        | 29.1        | 28.4        | 28.9        | 28.3        | 27.7        | 27.2        |
| <b>Non EU-Countries / Average</b>           | <b>23.2</b> | <b>22.9</b> | <b>22.2</b> | <b>21.6</b> | <b>20.8</b> | <b>20.2</b> | <b>20.7</b> | <b>20.3</b> | <b>19.9</b> | <b>19.5</b> |
| <b>Average of all 31 European Countries</b> | <b>22.4</b> | <b>22.1</b> | <b>21.6</b> | <b>20.9</b> | <b>20.1</b> | <b>19.4</b> | <b>19.9</b> | <b>19.7</b> | <b>19.3</b> | <b>18.5</b> |

Source: Own Calculations, Dec. 2011

**Table 1.3: Size of the Shadow Economy of 5 Highly Developed Non- European Countries over 2003 – 2012 (in % of off. GDP)**

| Country / Year                        | 2003         | 2004         | 2005         | 2006         | 2007         | 2008        | 2009        | 2010       | 2011        | 2012        |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|------------|-------------|-------------|
| Australia                             | 13.7         | 13.2         | 12.6         | 11.4         | 11.7         | 10.6        | 10.9        | 10.3       | 10.1        | 9.8         |
| Canada                                | 15.3         | 15.1         | 14.3         | 13.2         | 12.6         | 12          | 12.6        | 12.2       | 11.9        | 11.5        |
| Japan                                 | 11           | 10.7         | 10.3         | 9.4          | 9            | 8.8         | 9.5         | 9.2        | 9           | 8.8         |
| New Zealand                           | 12.3         | 12.2         | 11.7         | 10.4         | 9.8          | 9.4         | 9.9         | 9.6        | 9.3         | 8.8         |
| United States USA                     | 8.5          | 8.4          | 8.2          | 7.5          | 7.2          | 7           | 7.6         | 7.2        | 7           | 7.0         |
| <b>Other OECD Countries / Average</b> | <b>12.16</b> | <b>11.92</b> | <b>11.42</b> | <b>10.38</b> | <b>10.06</b> | <b>9.56</b> | <b>10.1</b> | <b>9.7</b> | <b>9.46</b> | <b>9.18</b> |

Source: Own Calculations, Dec. 2011

**Table 1.4: Size of the Shadow Economy of Various Averages over 2003 – 2012 (in % of off. GDP)**

| <b>Averages / Year</b>                  | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> | <b>2011</b> | <b>2012</b> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>27 EU-Countries / Average</b>        | 22.3        | 21.9        | 21.5        | 20.8        | 19.9        | 19.3        | 19.8        | 19.5        | 19.4        | 18.4        |
| <b>4 Non EU-Countries / Average</b>     | 23.2        | 22.9        | 22.2        | 21.6        | 20.8        | 20.2        | 20.7        | 20.3        | 20.0        | 19.5        |
| <b>5 Other OECD Countries / Average</b> | 12.2        | 11.9        | 11.4        | 10.4        | 10.1        | 9.6         | 10.1        | 9.7         | 9.5         | 9.18        |
| <b>All 36 Countries / Average</b>       | <b>19.2</b> | <b>18.9</b> | <b>18.4</b> | <b>17.6</b> | <b>16.9</b> | <b>16.3</b> | <b>16.9</b> | <b>16.5</b> | <b>16.3</b> | <b>15.7</b> |

Source: Own Calculations, Dec. 2011