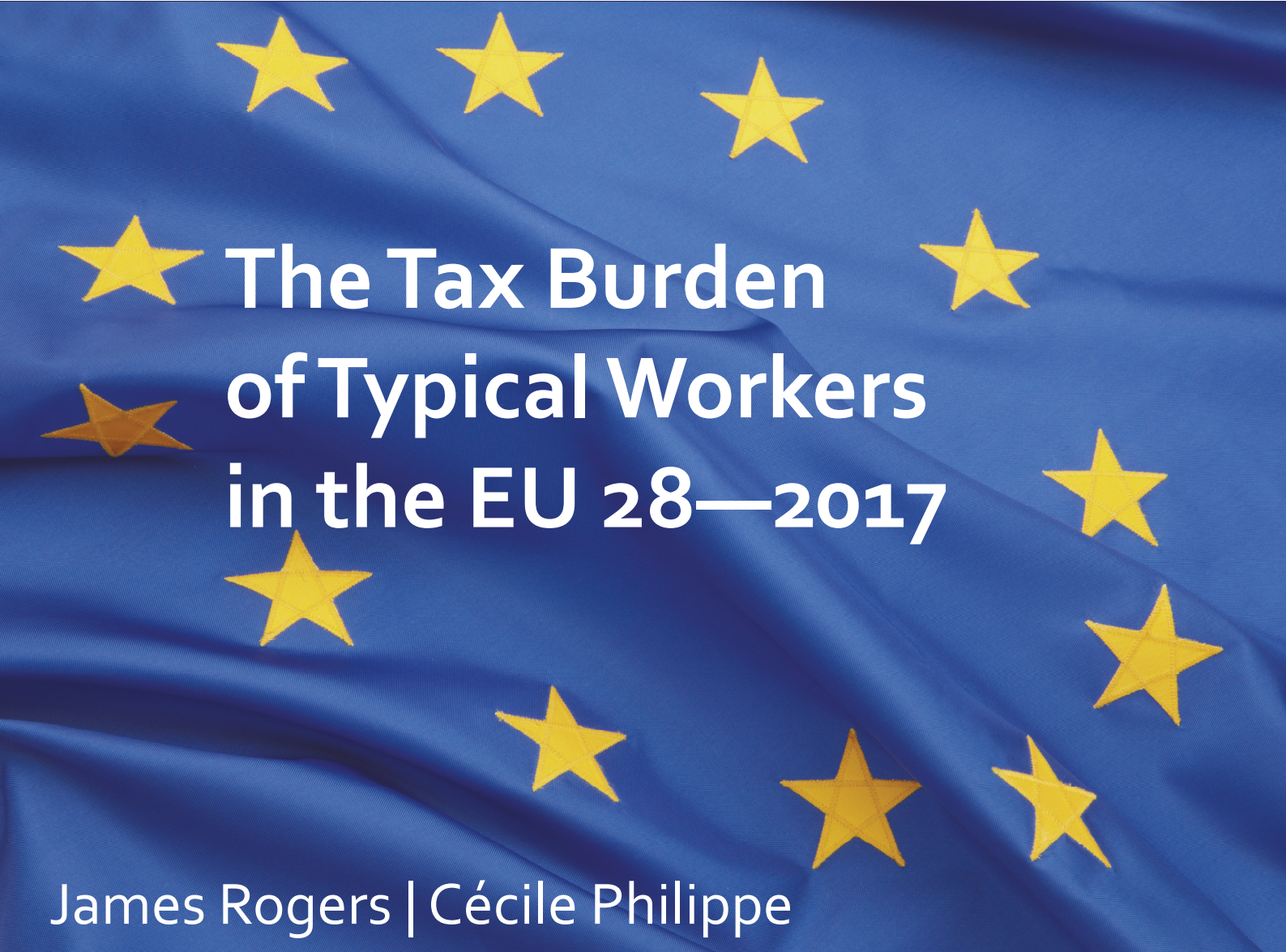




# The Tax Burden of Typical Workers in the EU 28—2017

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Tax calculations provided by



## ABSTRACT

The purpose of this study is to compare the tax and social security burdens of individual employees earning typical salaries in each of the 28 member states of the European Union and, in doing so, to determine a “tax liberation day” — measuring how much of each year’s work is devoted to paying taxes — for workers in each country.

In addition, the study tracks year-to-year trends in the total cost, including taxation, of hiring salaried employees in the EU-28.

## Background

Numerous studies rank political systems by various measures of “economic freedom.” While valuable to economists, the aggregate data in these studies fail to shed light on the working individual’s role in financing their state and social security.

In addition, many organizations determine an annual “tax freedom day” for their countries. Unfortunately, conflicting approaches to this calculation make cross-border comparisons difficult.

This study aims to create an “apples to apples” comparison of tax rates, with data that reflect the reality experienced by real, working people in the European Union. Finally, it serves as a guide to the true cost of hiring employees in each member state.

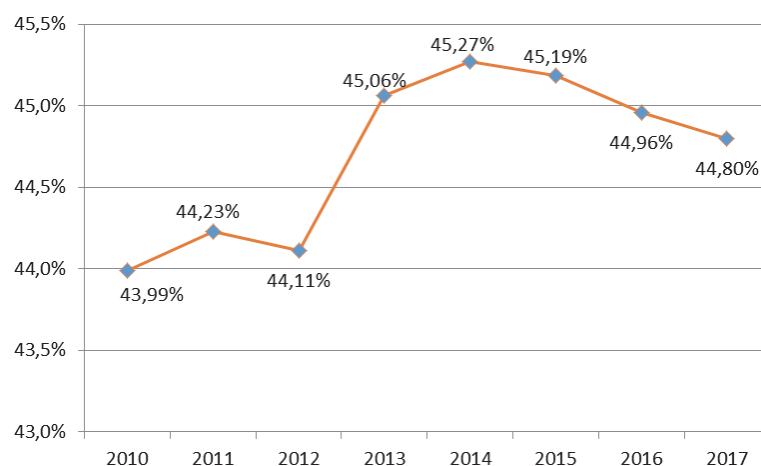


## MAIN RESULTS

### On average, a respite for workers from ever-rising taxes...

For the third consecutive year, typical workers in the European Union see their average “real tax rate” dip slightly (0.16%) this year, from 44.96% to 44.80%. Still, workers’ taxes remain nearly 1% higher than in 2010, due in large part to VAT increases in 20 of the 28 member states during this period.

*Real tax rate for typical workers in the EU-28*



### ...while prevalence of “hidden” tax contributions grows

Employer contributions to social security, which are paid on top of gross salaries and do not appear on most workers’ payslips, now represent 44.4% of all payroll taxes collected in the EU. Belgium substantially reduced this rate in 2016 (and is expected to do so further from 2018-2020), but other countries have increased their use of this “invisible” tax to the extent that the aggregate EU figure increased by 0.2% over the past three years.

### Noteworthy in 2017

**France** retains its position as the EU member state that taxes labour at the highest rate. 57.41% of the cost of a salary goes to the government there, making the French worker’s tax liberation day the 29th of July. The French date has not changed in three years.

The Tax Liberation Day in **Hungary** (5 July) is now 31 days earlier than in the first edition of this study (2010), when Hungarian workers’ salaries were the

EU's highest-taxed (06 August) on labour. This year's reforms, which include lower personal income taxes and reduced employer contributions to social security, are expected to be followed by additional cuts in 2018. Despite the offsetting increase in VAT from 20% to 27%, Hungarian workers have seen their real net pay increase 42.8% since 2010.

In contrast, the Tax Liberation Day in **Greece** (10 July) is now 27 days later than in 2010 (13 June). Salaries have dropped as taxes have risen, such that a typical Greek worker's annual take-home pay has dropped 21%, (approximately 3,300 €) during this period.

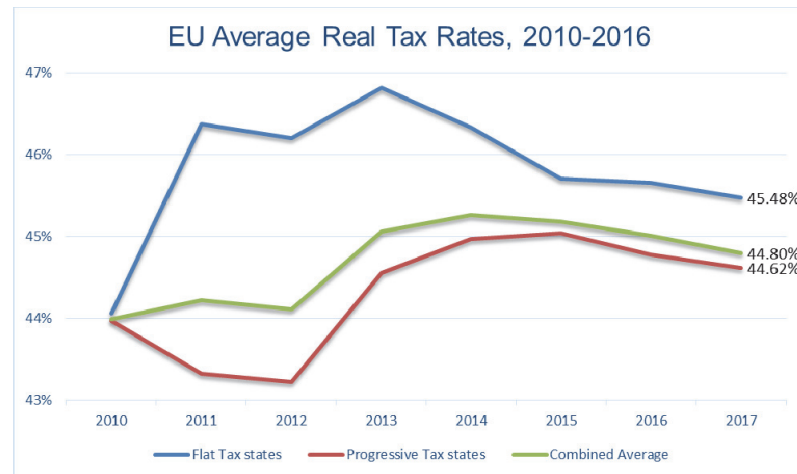
The "tax shift" in **Belgium** produces no new gains for its workers this year; their tax liberation day is again the 27th of July. In 2016, the real tax rate for Belgian workers dropped by 2.6%, accelerating the arrival of their tax liberation day by nine days. Unfortunately for workers, most of the tax savings went to employers, while workers faced higher taxes on electricity, diesel fuel, alcohol and other consumables. On the bright side, new policy implementations are expected to reduce employment costs and increase employees' take-home pay in 2018, 2019 and 2020.

Since the first edition of this study, 20 of the 28 EU members have raised VAT rates — but in 2017, **Romania** becomes the first to cut its standard VAT rate back to its 2010 level (19%); this follows a cut in 2016 from 24% to 20%. Greece, which also had a 19% standard rate in 2010, raised its rate again in 2017, from 23% to 24%.

Effective in 2017, a temporary budget-balancing tax of 0.5% was abolished in **Luxembourg**, moving that country's Tax Liberation Day forward nearly a week and back into the month of May. At Mat 29th, employees in the Grand Duchy are still working two weeks longer to pay taxes than they did in 2010.

## Gap between flat-tax and progressive-tax countries widens

The gap widens this year: Europe's governments with "flat tax" policies continue to tax workers at higher rates than those in progressive tax countries. Six member states — all among the EU's ten poorest — have flat tax policies.



Generally, flat tax policies impose a fixed rate on income tax, the lowest being 10% in Bulgaria. Social security contribution rates in these countries are higher than in progressive systems — on average, social contributions make up 72% of payroll taxes collected in "flat tax" countries. (Not that the flat income tax rates are lower, either: Of the 10 countries assessing the lowest income tax rates on workers, 9 have progressive income tax systems.) In addition, 4 of the EU's 6 flat tax countries (Bulgaria and Romania being the exceptions) have higher standard VAT rates than in 2009.

## OUTLOOK

Higher pension and health care expenditures are among the primary effects of the ageing of Europe's population, and there are fewer workers to pay for these costs; despite a decrease in the unemployment rate (down from 8.9% to 8.2% in 2016), only 45.4% of EU citizens were in the labour force in 2016, 0.3% lower than when the first edition of this study was released in 2010. Once again, budget cuts and economic growth remain workers' best hopes against tax increases in the near term.

## DEFINITIONS AND METHODOLOGY

The following terms are used in this study:

**Real Gross Salary** represents the total cost of employing an individual, including social security contributions made on top of an employee's salary.

**Real Net Salary** is the "bottom line" figure: How much cash a worker has left over to spend that will not be paid to the state (other additional taxes — such as those on petrol, airline tickets and alcohol — are not considered in this study).

An individual's **Real Tax Rate** is:

$$\frac{\text{Social Security Contributions + Income Tax + VAT}}{\text{Real Gross Salary}}$$

This percentage of 365 determines the **Tax Liberation Day**, the calendar date on which an employee (beginning work, in theory, on January 1<sup>st</sup>), would earn enough to pay his annual tax burden.

## 2017 TAX FREEDOM DAY CALENDAR

|              |    |                |
|--------------|----|----------------|
| <b>MARCH</b> | 27 | Cyprus         |
| <b>APRIL</b> | 19 | Malta          |
|              | 26 | Ireland        |
| <b>MAY</b>   | 9  | United Kingdom |
|              | 21 | Bulgaria       |
|              | 29 | Luxembourg     |
| <b>JUNE</b>  | 1  | Denmark        |
|              | 8  | Spain          |
|              | 9  | Estonia        |
|              | 9  | Slovenia       |
|              | 11 | Portugal       |
|              | 12 | Croatia        |
|              | 14 | Poland         |
|              | 19 | Finland        |
|              | 20 | Lithuania      |
|              | 20 | Czech Republic |
|              | 20 | Romania        |
|              | 20 | Netherlands    |
|              | 20 | Latvia         |
|              | 20 | Slovakia       |
|              | 23 | Sweden         |
| <b>JULY</b>  | 5  | Hungary        |
|              | 8  | Italy          |
|              | 10 | Greece         |
|              | 10 | Germany        |
|              | 18 | Austria        |
|              | 27 | Belgium        |
|              | 29 | France         |



## DATA SUMMARY (ALL FIGURES IN EUROS)

| Country                 | Real Gross Salary <sup>2</sup> | Employer Social Security | Gross Salary <sup>3</sup> | Income Tax | Employee Social Security | Take-home Pay (Net Income) | VAT Rate | Estimated VAT | Real Net Salary | Real Tax Rate | Tax Liberation Day 2017 |
|-------------------------|--------------------------------|--------------------------|---------------------------|------------|--------------------------|----------------------------|----------|---------------|-----------------|---------------|-------------------------|
| Austria                 | 56,942                         | 13,458                   | 43,484                    | 7,761      | 7,879                    | 27,844                     | 20.0%    | 1,810         | 26,034          | 54.28%        | 18-Jul                  |
| Belgium                 | 59,775                         | 13,082                   | 46,693                    | 12,868     | 6,072                    | 27,753                     | 21.0%    | 1,894         | 25,858          | 56.74%        | 27-Jul                  |
| Bulgaria <sup>4</sup>   | 6,256                          | 970                      | 5,286                     | 458        | 705                      | 4,123                      | 20.0%    | 268           | 3,855           | 38.39%        | 21-May                  |
| Croatia <sup>5</sup>    | 14,768                         | 2,167                    | 12,601                    | 1,147      | 2,520                    | 8,934                      | 25.0%    | 726           | 8,208           | 44.42%        | 12-Jun                  |
| Cyprus <sup>6</sup>     | 25,189                         | 2,598                    | 22,591                    | 266        | 1,762                    | 20,564                     | 19.0%    | 1,270         | 19,294          | 23.40%        | 27-Mar                  |
| Czech Republic          | 15,763                         | 4,000                    | 11,764                    | 1,445      | 1,294                    | 9,024                      | 21.0%    | 616           | 8,409           | 46.66%        | 20-Jun                  |
| Denmark                 | 54,901                         | 306                      | 54,596                    | 19,434     | 153                      | 35,009                     | 25.0%    | 2,844         | 32,165          | 41.41%        | 01-Jun                  |
| Estonia <sup>†</sup>    | 16,649                         | 3,723                    | 12,926                    | 1,937      | 219                      | 10,770                     | 20.0%    | 700           | 10,070          | 39.51%        | 25-May                  |
| Finland                 | 53,247                         | 9,711                    | 43,536                    | 8,496      | 4,062                    | 30,978                     | 24.0%    | 2,416         | 28,562          | 46.36%        | 19-Jun                  |
| France                  | 56,499                         | 18,707                   | 37,792                    | 2,542      | 9,516                    | 25,735                     | 20.0%    | 1,673         | 24,062          | 57.41%        | 29-Jul                  |
| Germany                 | 56,180                         | 9,138                    | 47,042                    | 8,785      | 9,679                    | 28,578                     | 19.0%    | 1,765         | 26,813          | 52.27%        | 10-Jul                  |
| Greece                  | 25,383                         | 5,086                    | 20,296                    | 3,862      | 3,247                    | 13,187                     | 24.0%    | 1,029         | 12,159          | 52.10%        | 10-Jul                  |
| Hungary <sup>†</sup>    | 12,682                         | 2,413                    | 10,269                    | 1,540      | 1,900                    | 6,829                      | 27.0%    | 599           | 6,230           | 50.88%        | 05-Jul                  |
| Ireland                 | 38,593                         | 3,746                    | 34,847                    | 4,992      | 1,394                    | 28,461                     | 23.0%    | 2,127         | 26,334          | 31.77%        | 26-Apr                  |
| Italy                   | 39,880                         | 9,170                    | 30,710                    | 6,990      | 2,914                    | 20,806                     | 22.0%    | 1,488         | 19,318          | 51.56%        | 08-Jul                  |
| Latvia <sup>†7</sup>    | 12,132                         | 2,316                    | 9,816                     | 1,855      | 1,031                    | 6,930                      | 21.0%    | 473           | 6,457           | 46.77%        | 20-Jun                  |
| Lithuania <sup>†8</sup> | 11,363                         | 2,793                    | 8,569                     | 1,285      | 771                      | 6,513                      | 21.0%    | 444           | 6,068           | 46.60%        | 20-Jun                  |
| Luxembourg              | 63,836                         | 8,273                    | 55,563                    | 8,699      | 6,837                    | 40,027                     | 17.0%    | 2,211         | 37,815          | 40.76%        | 29-May                  |
| Malta <sup>9</sup>      | 18,497                         | 1,934                    | 16,563                    | 2,062      | 1,934                    | 12,567                     | 18.0%    | 735           | 11,832          | 36.03%        | 12-May                  |
| Netherlands             | 58,609                         | 9,374                    | 49,235                    | 9,043      | 6,695                    | 33,497                     | 21.0%    | 2,286         | 31,211          | 46.75%        | 20-Jun                  |
| Poland                  | 12,483                         | 2,133                    | 10,350                    | 734        | 2,223                    | 7,393                      | 23.0%    | 553           | 6,840           | 45.20%        | 14-Jun                  |
| Portugal                | 21,384                         | 4,104                    | 17,280                    | 2,512      | 1,901                    | 12,867                     | 23.0%    | 962           | 11,905          | 44.33%        | 11-Jun                  |
| Romania <sup>†10</sup>  | 8,368                          | 1,590                    | 6,779                     | 906        | 1,118                    | 4,755                      | 19.0%    | 294           | 4,461           | 46.69%        | 20-Jun                  |
| Slovakia                | 14,353                         | 3,737                    | 10,616                    | 1,024      | 1,423                    | 8,170                      | 20.0%    | 531           | 7,639           | 46.78%        | 20-Jun                  |
| Slovenia                | 21,024                         | 2,916                    | 18,109                    | 1,377      | 4,002                    | 12,730                     | 22.0%    | 910           | 11,820          | 43.78%        | 09-Jun                  |
| Spain                   | 34,111                         | 7,851                    | 26,259                    | 3,838      | 1,667                    | 20,754                     | 21.0%    | 1,416         | 19,337          | 43.31%        | 08-Jun                  |
| Sweden                  | 58,059                         | 13,881                   | 44,178                    | 10,939     | 0                        | 33,240                     | 25.0%    | 2,701         | 30,539          | 47.40%        | 23-Jun                  |
| United Kingdom          | 47,066                         | 4,687                    | 42,379                    | 5,770      | 3,933                    | 32,677                     | 20.0%    | 2,124         | 30,553          | 35.08%        | 09-May                  |

All figures in euros. Flat tax countries are marked with a dagger (†).

2. Total cost of employment, social security contributions, personal income tax figures and net income calculated by EY. Other calculations by Institut économique Molinari.
3. Unless otherwise noted, Average Gross Salary figures are from OECD's *Taxing Wages* or Eurostat's *Annual gross earnings in industry and services*.
4. Average Gross Salary figure for Bulgaria from the national statistics office: <http://www.nsi.bg>
5. Average Gross Salary figure for Croatia from the national statistics office: <http://www.dzs.hr>
6. Average Gross Salary figure for Cyprus from the national statistics office: [www.mof.gov.cy](http://www.mof.gov.cy)
7. Average Gross salary for Latvia from the national statistics office: <http://csb.gov.lv>
8. Average Gross salary for Lithuania from the national statistics office: <http://osp.stat.gov.lt>
9. Average Gross salary for Malta from the national statistics office: <http://nso.gov.mt>
10. Average Gross salary for Romania from the national statistics office: <http://insse.ro>

Tax calculations provided by



## RESEARCH NOTES

### Gross Salary

When available, salary figures come from the OECD's *Taxing Wages* and from Eurostat's *Average gross annual earnings in industry and services*. Others are sourced from government statistics offices (see footnotes on page 8).

In euros, gross salaries ranged from 5,286€ (Bulgaria) to 55,563€ (Luxembourg). The average gross salary among the 28 states was 26,790€.

### Employer Contributions to Social Security

These taxes — which are invisible to most employees, who see only deductions from their gross salaries on their pay slips — vary to a great degree. For typical workers, these costs range from less than 1% of gross salary (Denmark) to 50% (France).

### Individual Contributions to Social Security

Visible on employees' payslips, the lower and upper reaches of these deductions are also set, respectively, by Sweden and Denmark (less than 1%) and France (nearly 25%).

### Total Contributions to Social Security

France (75.4%) is the only country taking more than half of a typical worker's gross salary for social security contributions. Austria and Slovakia, at 49%, collect the next-largest share.

As a group, flat tax countries collected 37.7% of average gross salaries as social security contributions, 2.9% more than in progressive systems.

### Personal Income Taxes

In Denmark, where combined social security contributions remain the lowest (as a percentage), personal income taxes are the highest (35.6%). At 1.2% of gross salary, typical workers in Cyprus have the lowest income tax rates in the EU.

## Estimated Value-Added Tax (VAT)

20 of the 28 EU member states have increased VAT rates since 2009, with the largest hikes implemented in Hungary (from 20% to 27%), the United Kingdom (from 15% to 20%), Spain (from 16% to 21%), Romania (from 19% to 24%, then back to 19%) and Greece (from 19% to 23%). The countries without VAT increases since 2009 are: Austria, Belgium, Bulgaria, Denmark, Germany, Latvia, Malta, and Sweden.

To determine estimated VAT we assume, conservatively, that only 32.5% of a worker's net income will be subject to VAT. *Estimated Rent* is assumed to be 35% of the employee's net (take-home) income. After subtracting rent, remaining net income is divided in half to estimate the sum left over that will be subject to VAT when spent.

## ABOUT THE AUTHORS

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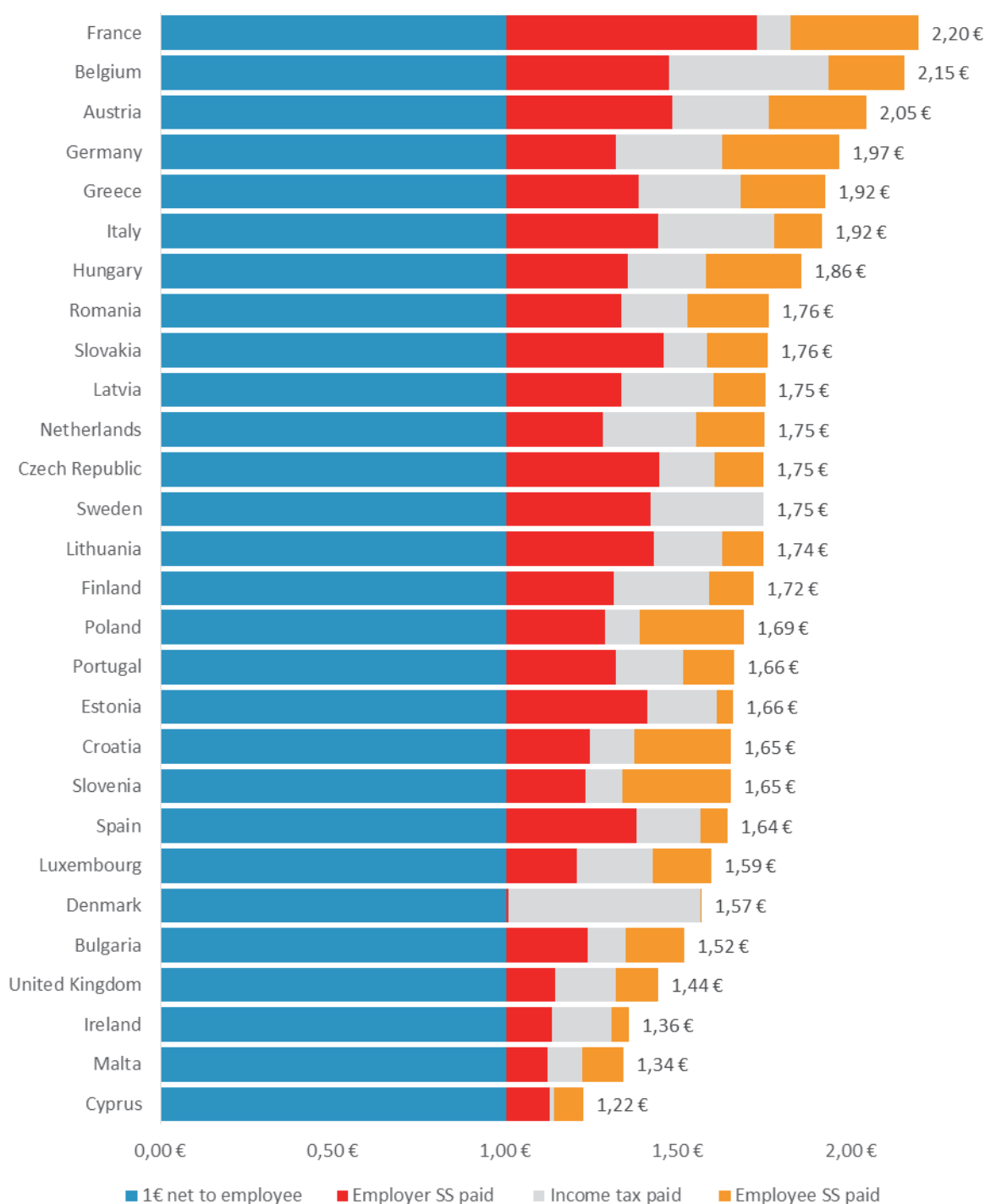
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## APPENDIX 1: COST TO EMPLOYER OF €1 NET TO EMPLOYEE

The chart below shows what employers must spend to pay each net euro to an employee. The figures do not include VAT.



## APPENDIX 2: RANKINGS BY TOTAL COST OF EMPLOYMENT, TOTAL TAX BURDEN AND REAL NET SALARY\*

(\*All figures in Euros (€). Results include social charges, income taxes and estimated VAT)

| Rank | TOTAL EMPLOYMENT COST |        | TOTAL TAX BURDEN |        | REAL NET SALARY |        |
|------|-----------------------|--------|------------------|--------|-----------------|--------|
| 1    | Luxembourg            | 63 836 | Belgium          | 33 916 | Luxembourg      | 37 815 |
| 2    | Belgium               | 59 775 | France           | 32 437 | Denmark         | 32 165 |
| 3    | Netherlands           | 58 609 | Austria          | 30 908 | Netherlands     | 31 211 |
| 4    | Sweden                | 58 059 | Germany          | 29 367 | United Kingdom  | 30 553 |
| 5    | Austria               | 56 942 | Sweden           | 27 520 | Sweden          | 30 539 |
| 6    | France                | 56 499 | Netherlands      | 27 399 | Finland         | 28 562 |
| 7    | Germany               | 56 180 | Luxembourg       | 26 021 | Germany         | 26 813 |
| 8    | Denmark               | 54 901 | Finland          | 24 685 | Ireland         | 26 334 |
| 9    | Finland               | 53 247 | Denmark          | 22 737 | Austria         | 26 034 |
| 10   | United Kingdom        | 47 066 | Italy            | 20 562 | Belgium         | 25 858 |
| 11   | Italy                 | 39 880 | United Kingdom   | 16 513 | France          | 24 062 |
| 12   | Ireland               | 38 593 | Spain            | 14 774 | Spain           | 19 337 |
| 13   | Spain                 | 34 111 | Greece           | 13 224 | Italy           | 19 318 |
| 14   | Greece                | 25 383 | Ireland          | 12 259 | Cyprus          | 19 294 |
| 15   | Cyprus                | 25 189 | Portugal         | 9 479  | Malta           | 12 786 |
| 16   | Portugal              | 21 384 | Slovenia         | 9 205  | Greece          | 12 159 |
| 17   | Slovenia              | 21 024 | Estonia          | 7 489  | Portugal        | 11 905 |
| 18   | Malta                 | 18 219 | Czech Republic   | 7 355  | Slovenia        | 11 820 |
| 19   | Estonia               | 17 191 | Slovakia         | 6 715  | Estonia         | 9 702  |
| 20   | Czech Republic        | 15 763 | Croatia          | 6 560  | Czech Republic  | 8 409  |
| 21   | Croatia               | 14 768 | Hungary          | 6 453  | Croatia         | 8 208  |
| 22   | Slovakia              | 14 353 | Cyprus           | 5 895  | Slovakia        | 7 639  |
| 23   | Hungary               | 12 682 | Latvia           | 5 674  | Poland          | 6 840  |
| 24   | Poland                | 12 483 | Poland           | 5 643  | Latvia          | 6 457  |
| 25   | Latvia                | 12 132 | Malta            | 5 433  | Hungary         | 6 230  |
| 26   | Lithuania             | 11 363 | Lithuania        | 5 295  | Lithuania       | 6 068  |
| 27   | Romania               | 8 368  | Romania          | 3 907  | Romania         | 4 461  |
| 28   | Bulgaria              | 6 256  | Bulgaria         | 2 402  | Bulgaria        | 3 855  |