



## EMCDDA PAPERS

# Estimating public expenditure on drug-law offenders in prison in Europe

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**Abstract:** The EMCDDA has estimated annual public expenditure on drug-law offenders in prisons in Europe. Between 2000 and 2010, this expenditure is estimated to have been within the range of 0.03 % to 0.05 % of GDP, on average, in 22 European countries. By applying these percentages to the whole EU for the year 2010, it can be estimated that the expenditure was within the range of EUR 3.7 billion to EUR 5.9 billion. Based on data provided by Eurostat and the Council of Europe, the proportion of sentenced prisoners who have a drug-law offence as their main offence was applied to total public expenditure on prisons. A range of estimates was calculated, with low estimates considering only those prisoners sentenced for a drug-law offence and high estimates also including pre-trial prisoners. The estimates were limited by the data available. Data are missing for 8 of the 30 countries that participate in the EMCDDA's network: in some countries, penal statistics do not apply the 'main offence rule'; and data on the

lengths of periods of imprisonment and the proportion of drug-law offenders under special security measures are not available. For the sake of accuracy, more complete data sets would be a valuable asset.

**Keywords** public expenditure prison costs drug supply reduction evaluation drug policy

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## Introduction

Estimating drug-related public expenditure and developing the economic monitoring of drug policy have been on the European agenda for more than a decade <sup>(1)</sup>. However, until now only 17 countries out of the 30 followed by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) have produced one or more comprehensive estimates of the government's expenditure on implementing drug policy <sup>(2)</sup>. Furthermore, those who have done so have most often used non-comparable methodologies. As a consequence, the economic monitoring of drug policy is still in its infancy in Europe.

Over the past few years, the EMCDDA has supported and promoted the development of national estimates of drug-related public expenditure in EU Member States. This has contributed to an increase in the number of such estimates but has also highlighted several methodological and practical difficulties that need particular attention. Estimating drug-related public expenditure poses a series of challenges. One is that only a small part of drug-related public expenditure can be traced back directly to a government's budget and accountancy documents. The larger part is embedded in broader expenditure categories (e.g. police services or hospitals) and needs to be estimated with the help of models and secondary data sets. This type of expenditure is commonly referred to as 'unlabelled expenditure' (EMCDDA, 2008). Another challenge is that when a country develops a national estimate of drug-related public expenditure it often does not have access to the full desired data set. When this exercise is transposed to the European level, the availability of comparable and harmonised data becomes even more limited. Therefore, to develop an estimate of drug-related public expenditure across Europe it is necessary to define a model that best estimates each type of drug-related public expenditure, taking into account these restrictions.

This publication is the first on developing strategies for estimating different components of drug-related public expenditure in Europe. Its aims are threefold. The first is to

provide countries with examples of simple tools which could be of use when constructing national estimates of drug-related public expenditure, taking into account the limited data available and the need to use a methodology that will enable comparisons across countries. The second aim is to facilitate a common understanding of how much is spent on different areas of drug policy in Europe, and the third is to stimulate a constructive and pragmatic debate among researchers. Where possible, we prioritise the use of existing European databases and successfully tested methodologies.

This study estimates how much 22 European countries spent on drug-law offenders in prisons during the last decade. Based on this, an estimate for public expenditure on drug-law offenders at the European level was made. In order to attain this objective, the study identifies suitable data sets and suggests a simple model, taking into account the scarcity of available data. This exercise may be used as an example for similar exercises. However, it also highlights some areas where additional data would be useful, allowing important methodological improvements and more accurate estimates. Because of the current data limitations, results and analysis need to be viewed with caution; conclusions provided are useful mainly for discussion purposes.

## Available data

In order to estimate public expenditure on drug-law offenders in prison, the EMCDDA has opted for a top-down approach, which aims to disentangle the funds allocated to a specific drug policy from the overall public budget <sup>(3)</sup>. As Vander Laenen et al. (2008) remark, a top-down approach is commonly used in analyses of drug-related public expenditure, as drug-related expenditures are often 'unlabelled' because they are embedded in broader policy domains. A top-down approach is suitable for estimating expenditure on drug-law offenders in prison because such spending is part of the broader prisons budget.

<sup>(1)</sup> Council of the European Union (2005) EU drugs action plan (2005–08), Cordroge 25, Brussels, 19 May 2005.

<sup>(2)</sup> Further information is available at <http://www.emcdda.europa.eu/topics/drug-related-public-expenditure>.

<sup>(3)</sup> A top-down approach was chosen because, according to the available information, it seemed that this is the approach that can most feasibly be applied to other areas of drug policy (such as, police services and law courts).

## Expenditure on drug-law offenders in prison versus the social costs of drug crime

Estimates of public expenditure on drug-law offenders in prison are part of a broader field of analysis relating to the social cost of drug-related crime.

As Brand and Price (2000) stressed, in this field social costs are multiple and borne by both the public and the private sector. While public-sector costs might be related, for instance, to the public funding of prisons, private costs might include the reduction in a family's income due to an offender losing his or her job. Vander Laenen et al. (2008) argued that these social costs are also borne by the community as a whole and proposed the use of the expression 'external costs'. An example of an external cost would be the negative impact of prisons on their neighbourhoods. Neighbourhoods close to prisons can be considered less safe, resulting in a reduction the value of the property in the area.

Drug-law offences are only one specific type of drug crime. There are four main types of drug-related crime (EMCDDA, 2007). First, psychopharmacological crimes, i.e. crimes committed under the influence of a psychoactive substance, as a result of its acute or chronic use; second, economic-compulsive crimes, i.e. crimes committed in order to support drug use, i.e. to obtain drugs or means of payment for drugs; third, systemic crimes, i.e. crimes committed within the functioning of illicit drug markets, as part of the business of drug supply, distribution and use; and, fourth, drug-law offences, i.e. crimes committed in violation of drug (and other related) legislation.

There is widespread interest among researchers and policymakers in estimating the full social costs of drug-related crime; however, comparable international data do not exist on either private or external costs. The scarcity of data also explains restrictions on the type of drug-related crime analysed in this study. Data on psychopharmacological crimes, economic-compulsive crimes and systemic crimes are rare and often inadequate at European level. All in all, the confined scope of this analysis aims that estimates produce reliable, comparable and representative European results, and these characteristics should be the strength of this analysis.

Data availability is a key element in the choice of the method. The method chosen needs to be feasible for application to the majority of European countries and, furthermore, using comparable data. The best available European database on public expenditure, in which the funds allocated to various public policy objectives are estimated, has been developed by Eurostat. Its categorisation system is based on the international Classification of the Functions of Government (COFOG) system <sup>(4)</sup>. The main strengths of this database are that it provides annual data on public expenditure disaggregated by policy area, that is, according to the purpose of the spending. Additionally, submission of data is mandatory and is managed by Eurostat and national statistical institutes, and the data are therefore subject to systematic control and validation procedures. The main limitations are that classifying expenditures according to a single purpose is sometimes reductionist and the categories can be interpreted differently by different data providers. There is still room for improvement in order to further harmonise definitions and accountancy practices.

The second data source used in this study was the Annual Penal Statistics of the Council of Europe or SPACE (Aebi and Delgrande, 2012). This project provides data on the populations detained in penal institutions across Europe. In 2012, it published data for 47 Member States of the Council of Europe. These countries registered 52 prison administrations

## Public expenditure breakdown by objectives: the COFOG system

Eurostat publishes annual data on total general government public expenditure that includes data on central, regional and local government expenditure as well as social security spending. Expenditure is broken down by the governments' main socioeconomic functions (according to COFOG). Eurostat has been reporting these data for the EU-27 countries since 2002.

COFOG has two levels of classification (United Nations, 2008). The first one classifies expenditure in 10 general functions, one of which is 'Public order and safety'. The second level classifies expenditure in 69 groups, and one of these is 'Prisons'. This concerns public spending on 'Administration, operation or support of prisons and other places for the detention or rehabilitation of criminals such as prison farms, workhouses, reformatories, borstals, asylums for the criminally insane, etc.'

<sup>(4)</sup> [http://epp.eurostat.ec.europa.eu/cache/ITY\\_SDDS/EN/gov\\_a\\_exp\\_esms.htm](http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/gov_a_exp_esms.htm)

under their control, and 46 of these prison administrations replied to the SPACE questionnaire <sup>(5)</sup>. Data are available for the EU-27 countries for the period 2000–10, with increasing data coverage.

SPACE data include both the total numbers of prisoners and various breakdowns of these figures. Two of these are particularly relevant for this study. The first is the breakdown by the legal status of prisoner. For simplicity, this report follows the SPACE project in referring to two broad categories: 'pre-trial' prisoners (untried, awaiting a court decision; convicted but not yet sentenced; sentenced but who have appealed or who are within the statutory limits for doing so) and 'sentenced' prisoners (those who have received their final sentence). The second relevant SPACE data breakdown is by 10 types of offence for which prisoners have been sentenced (i.e. received their final sentence) as the main offence; one of these types is 'drug offences'. Unfortunately, this breakdown is not available for pre-trial prisoners, and a further breakdown according to the type of drug offence is not available for sentenced prisoners.

In this report, all references to offence types are to main offences and prisoners sentenced for drug offences will be referred to as 'drug-law offenders'. There are, however, some limitations associated with the features and registration systems of the different criminal justice systems (Aebi et al., 2007). For example, in 2009 the main offence rule was not well defined in Belgium, Bulgaria, Lithuania, Malta or Poland, and prisoners sentenced for more than one offence could be counted several times. In 2010, this limitation was reported only in Belgium, Bulgaria and the Czech Republic.

Additional data would be required to improve the accuracy of estimates. This could include data on the different types of drug offences for which prisoners were sentenced (distinguishing drug trafficking from drug consumption, for

instance); data on the average length of prison stay according to the type of main offence (average length for drug-law offences compared with average length for other types of offence); data on the main offence for which pre-trial prisoners are prosecuted; and data on drug-law offenders under special conditions (such as electronic supervision) or special security measures.

## Key figures on Europe's prison population

In 2010, there were 627 203 prisoners in the EU-27, corresponding to 0.13 % of the total population (see Table 1). Of these, 487 356 were sentenced, representing 77.7 % of the total prison population, while the remainder were pre-trial. The proportion of sentenced prisoners to the total prison population varied significantly between countries, representing more than 80 % in some countries and less than 50 % in others.

The numbers of sentenced drug-law offenders in prison per country over the period 2000–10 are illustrated in Annex 1.

In 2010, among the sentenced prisoners in 25 EU countries (data are not available for Austria and Poland), 18.5 % were sentenced for a drug-law offence. This proportion varied widely between countries, from about 50 % in Greece to less than 5 % in Romania, Hungary and Lithuania.

The proportion of sentenced drug-law offenders in the total prison population (sentenced and pre-trial prisoners) was 13.9 % in 2010. Again, this proportion varied markedly from country to country. Countries with the highest proportions of sentenced drug-law offenders relative to the total number of prisoners were those which combined higher rates of sentenced prisoners with higher rates of sentenced drug-law offenders.

<sup>(5)</sup> In 2012, prison administrations of four EU Member States did not answer SPACE's 2010 questionnaire: Belgium, Bulgaria, Malta and the United Kingdom (England and Wales).

TABLE 1

## Total prison population and drug-law offenders in prison

	2003–07	2008	2009	2010
<b>Prison population in Europe (27) <sup>(1),(2)</sup></b>	596 956	623 230	641 845	627 203
<b>Prison population rate in Europe</b>	<b>0.12 %</b>	<b>0.13 %</b>	<b>0.13 %</b>	<b>0.13 %</b>
<i>Highest prison population rates</i>				
Lithuania	0.25 %	0.23 %	0.25 %	0.27 %
Latvia	0.33 %	0.29 %	0.31 %	0.30 %
Estonia	0.34 %	0.27 %	0.27 %	0.26 %
<i>Lowest prison population rates</i>				
Denmark	0.07 %	0.06 %	0.07 %	0.07 %
Slovenia	0.06 %	0.07 %	0.07 %	0.07 %
Finland	0.07 %	0.07 %	0.07 %	0.06 %
<b>Proportion of sentenced prisoners among total prisoners in Europe <sup>(1),(3)</sup></b>	<b>73.8 %</b>	<b>74.4 %</b>	<b>75.3 %</b>	<b>77.7 %</b>
<i>Highest proportions of sentenced prisoners</i>				
Czech Republic	84.9 %	88.3 %	89.2 %	88.8 %
Poland	80.0 %	88.4 %	88.2 %	89.0 %
Romania	84.8 %	89.1 %	85.4 %	82.9 %
<i>Lowest proportions of sentenced prisoners</i>				
Malta	50.4 %	30.7 %	36.0 %	30.5 %
Netherlands	37.3 %	35.4 %	36.5 %	49.6 %
Italy	56.8 %	43.6 %	49.3 %	54.2 %
<b>Proportion of sentenced drug-law offenders among total sentenced prisoners in Europe <sup>(4),(5)</sup></b>	<b>17.6 %</b>	<b>17.6 %</b>	<b>17.6 %</b>	<b>18.5 %</b>
<i>Highest proportions of drug-law offenders</i>				
Malta	32.5 %	—	53.4 %	—
Greece	50.6 %	—	—	52.3 %
Italy	33.5 %	36.1 %	36.9 %	38.4 %
Luxembourg	31.9 %	44.6 %	38.7 %	36.1 %
<i>Lowest proportions of drug-law offenders</i>				
Lithuania	4.6 %	6.5 %	8.4 %	1.0 %
Hungary	1.9 %	2.5 %	2.6 %	3.1 %
Romania	2.5 %	4.0 %	4.2 %	4.3 %
<b>Proportion of sentenced drug-law offenders among total prisoners in Europe <sup>(4)</sup> (sentenced and pre-trial)</b>	<b>12.5 %</b>	<b>12.1 %</b>	<b>12.5 %</b>	<b>13.9 %</b>
<i>Highest proportions of drug-law offenders</i>				
Greece	37.3 %	—	—	36.0 %
Luxembourg	19.8 %	26.4 %	21.9 %	20.7 %
Sweden	18.4 %	24.1 %	22.9 %	22.1 %
<i>Lowest proportions of drug-offenders</i>				
Hungary	1.4 %	1.7 %	1.8 %	2.1 %
Romania	1.9 %	3.6 %	3.6 %	3.6 %
Slovakia	2.3 %	—	5.1 %	4.6 %

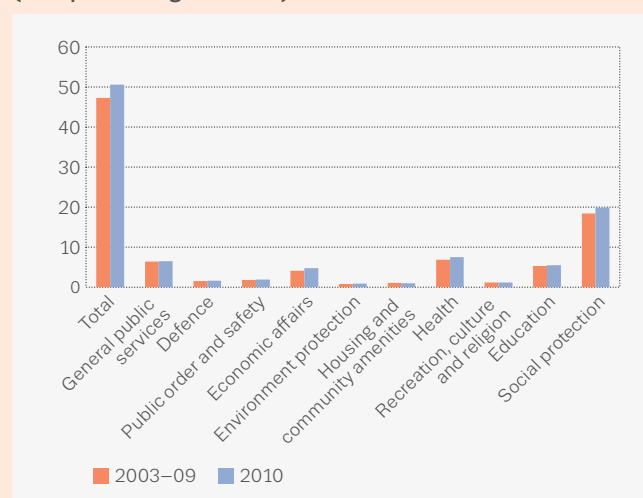
Data source: SPACE I Project, Council of Europe Annual Penal Statistics.

<sup>(1)</sup> Total number of prisoners (pre-trial and sentenced prisoners) on 1 September.<sup>(2)</sup> In 2010, data for Belgium and England and Wales concern 2009.<sup>(3)</sup> In 2010, data for Austria, Belgium and England and Wales concern 2009. Data missing for other years have been interpolated from adjacent years.<sup>(4)</sup> 'Europe' refers to the weighted average for EU-27 (excluding Austria and Poland).<sup>(5)</sup> The proportion of sentenced drug-law offenders among the total sentenced prisoners on 1 September.

## Public spending in the European Union

In 2010, total public expenditure of the general government amounted to 50.6 % of GDP in the European Union. This represents an increase compared with the period 2003–09 (47.2 % of GDP). A breakdown by socioeconomic functions shows that in 2010 social protection represented the largest share of public expenditure, close to 20 % of GDP. Health absorbed the second-largest share (7.5 % of GDP), while the share of public order and safety was close to 2 % of GDP.

**Public expenditure by main function in the EU-27 (as a percentage of GDP)**



### Key figures on public expenditure on prisons in Europe

Table 2 shows that, in the period 2003–10, EU-27 governments allocated about half of their countries' annual gross domestic product (GDP) to government spending. Funds spent on the objective 'Public order and safety' amounted, at most, to 2 % of GDP <sup>(6)</sup>. Those countries which spent the highest proportions of their GDP on public order and safety spent about twice as much as those which spent the smallest proportions.

Between 2003 and 2008, EU-27 expenditure remained stable at 1.8 % of GDP. In 2009, it increased slightly in nominal terms. There was a marked fall in the EU's GDP in 2009, and the proportion of public expenditure on public order and safety increased marginally, a situation which was partially reversed in 2010.

Public expenditure on prisons represented, on average, about 0.18 % of EU-27 <sup>(7)</sup> GDP, between 2003 and 2007. After 2008, this share declined slightly. Interestingly, during the economic recession of 2008 the reduction in the public spending on prisons was bigger than the reduction in the EU's GDP. Therefore, the proportion of GDP spent on prisons tended to fall.

However, when public expenditure by prisoner (sentenced and pre-trial) is analysed, data show that, after the decline observed in 2009, expenditure per prisoner increased in 2010, although it did not reach the level of 2008.

<sup>(6)</sup> Public expenditure on 'Public order and safety' is defined according to the COFOG system of public accountancy.

<sup>(7)</sup> In July 2012, Eurostat published statistics on public expenditure on prisons for 23 countries, with data up to 2010. These countries were the EU-27 excluding Belgium, France, Romania and Slovakia.

TABLE 2

## Public expenditure on public order and safety and on prisons (as a percentage of GDP)

	2003–07	2008	2009	2010
Public expenditure in EU-27	46.5	47.1	51.1	50.6
Public expenditure on public order and safety EU-27	1.8	1.8	2.0	1.9
<i>Highest proportions</i>				
United Kingdom	2.5	2.6	2.8	2.6
Latvia	2.5	2.3	2.1	2.0
Bulgaria	2.8	2.8	3.0	2.7
<i>Lowest proportions</i>				
Luxembourg	1.0	0.9	1.0	1.0
Denmark	1.0	1.1	1.2	1.1
Finland	1.3	1.3	1.5	1.5
Public expenditure on prisons EU-27-4 <sup>(1)</sup>	0.18	0.18	0.17	0.16
<i>Highest proportions</i>				
Sweden	0.21	0.22	0.25	0.23
United Kingdom	0.32	0.35	0.36	0.37
Netherlands	0.35	0.41	0.44	0.42
<i>Lowest proportions</i>				
Greece	0.06	0.12	0.07	0.06
Germany	0.11	0.10	0.10	0.10
Cyprus	0.09	0.10	0.10	0.11
Public expenditure on prisons per prisoner EU-27-4 <sup>(1)</sup>	0.000045	0.000053	0.000051	0.000052
<i>Highest proportions</i>				
Sweden	0.0001	0.0001	0.0002	0.0001
United Kingdom	0.0001	0.0001	0.0001	0.0001
Netherlands	0.0002	0.0003	0.0003	0.0004
<i>Lowest proportions</i>				
Germany	0.000001	0.000001	0.000001	0.000001
Poland	0.000002	0.000002	0.000002	0.000002
Spain	0.000002	0.000002	0.000002	0.000003

Data source: Eurostat and Council of Europe.

(<sup>1</sup>) Weighted average of public expenditure on prisons in the EU-27-4, i.e. the 27 European countries excluding Belgium, France, Romania and Slovakia, for which data are not available.

## Estimating public expenditure on drug-law offenders in prison

Public expenditure on drug-law offenders in prison will be estimated by applying the proportion of prisoners sentenced for a drug-law offence to the national public expenditure on prisons of the EU countries. This method has significant limitations, stemming from the lack of available data. For instance, it does not take into account differences in the lengths of periods of imprisonment, or the proportion of drug-law offenders under special security measures, or other factors that would result in detention costs differing from

those of other types of offence. These limitations reduce the accuracy of results but allow the comparison of results for most European countries.

Given these data limitations, two feasible estimates will be made: a low and a high estimate. The low estimate is based on the proportion of sentenced drug-law offenders of the total (sentenced and pre-trial) prison population. The high estimate is based on the proportion of sentenced drug-law offenders of the total sentenced prisoners (therefore excluding pre-trial prisoners). These estimates will be made for the 22 European countries that provided sufficient data for the period 2000–10 <sup>(8)</sup>.

(<sup>8</sup>) These countries are Bulgaria, the Czech Republic, Cyprus, Denmark, Estonia, Finland, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden and the UK.



## Low estimate

The low estimate of public expenditure on drug-law offenders in prison accounts for expenditure on sentenced drug-law offenders in prison. Therefore, it does not account for expenditure on pre-trial drug-law offenders.

During the period 2000–10, given the available data from 22 European countries, the estimated public expenditure on sentenced drug-law offenders in prison represented, on average, 0.03 % of GDP among these countries, as illustrated in Table 3.

If applied to these countries' GDP in 2010, this average of 0.03 % of GDP would represent a public expenditure on sentenced drug-law offenders in prison of EUR 3.4 billion.

If it is assumed that there is no significant difference between these 22 countries and the EU-27 Member States, and if this average (0.03 % of GDP) is applied to the EU-27 GDP for 2010, then the low estimate of public expenditure on sentenced drug-law offenders in prisons in the EU-27 would be close to EUR 3.7 billion.

As can be seen from Table 3, disregarding the first two years <sup>(9)</sup>, between 2002 and 2010 the average estimate was relatively stable, varying between 0.026 % and 0.032 % of GDP.

The change in value (both in nominal and real terms, as well as in percentage of GDP) over time of public expenditure on drug-law offenders in prison varies markedly in a country-by-country analysis, as shown in Annex 2 and Annex 3.

Table 3 shows that, when the low-estimate method is applied, estimates for most of the 22 countries of public expenditure on sentenced drug-law offenders in prison during the period 2000–10 are between 0.01 % and 0.03 % of GDP. Four countries have an estimate below 0.01 % of GDP (Bulgaria, Lithuania, Hungary and Slovenia) and six have an estimate above 0.03 % of GDP (Ireland, Italy, Malta, Portugal, Sweden and the United Kingdom). Such differences reflect national characteristics affecting public expenditure on prisons: different crime rates, different legal frameworks and judicial systems, different sentencing practices and also different proportions of pre-trial prisoners in the total population.

## A simple model for estimating public expenditure on drug-law offenders in prison

Equations (1), (2) and (3) represent the simple model used to estimate national public expenditure on drug-law offenders in prison.

$$P_{PEX\ i,t}^{DLO} = \alpha_{i,t} \times T_{PEX\ i,t} \quad (1)$$

$$\alpha_{i,t}^A = \frac{N_{i,t}^{A\ DLO}}{N_{i,t}^{TD}} \quad (2)$$

$$\alpha_{i,t}^B = \frac{N_{i,t}^{B\ DLO}}{N_{i,t}^{TD}} \quad (3)$$

$P_{PEX\ i,t}^{DLO}$  is public expenditure on drug-law offenders in prison in country  $i$  and year  $t$ ,  $T_{PEX\ i,t}$  is total public expenditure on prisons in country  $i$  and period  $t$ . Using  $\alpha^A$  we arrive at the low estimate.  $\alpha^A$  is the proportion of sentenced drug-law offenders in prison relative to the total number of prisoners (sentenced and pre-trial) in country  $i$  and year  $t$ . Therefore,  $N_{i,t}^{A\ DLO}$  is the number of sentenced drug-law offenders in prison in country  $i$  and year  $t$ , and  $N_{i,t}^{TD}$  is the total number of prisoners in country  $i$  and year  $t$ . Using  $\alpha^B$  we arrive at the high estimate.  $\alpha^B$  is the proportion of sentenced drug-law offenders and pre-trial drug-law offenders to the total prisoners in country  $i$  and year  $t$ .

<sup>(9)</sup> Eurostat started publishing data for public expenditure on prisons in 2000. However, in 2000 and 2001, only a small number of countries reported data.



TABLE 3

Estimated public expenditure on sentenced drug-law offenders in prison (as a percentage of GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average (2000–10)
Bulgaria		0.001	0.001	0.003			0.007	0.009	0.007	0.009	0.009	0.006
Czech Republic				0.008		0.010	0.014	0.014	0.021	0.013	0.011	0.013
Denmark		0.022	0.023	0.021	0.025	0.029	0.027	0.028	0.026	0.028	0.024	0.025
Germany			0.013	0.013	0.013	0.013	0.013	0.012	0.013	0.013	0.013	0.013
Estonia	0.003		0.011	0.027	0.011	0.012	0.012	0.017	0.067	0.039	0.030	0.023
Ireland			0.027	0.036			0.025	0.030	0.038	0.046	0.043	0.035
Greece				0.014			0.027				0.022	0.021
Spain	0.026	0.030	0.027	0.025	0.021	0.024	0.026	0.026	0.028	0.029	0.038	0.027
Italy	0.047	0.046	0.049	0.055	0.052	0.051	0.028	0.026	0.036	0.041	0.047	0.043
Cyprus			0.012	0.011	0.010	0.014	0.019	0.021	0.016	0.015	0.017	0.015
Latvia								0.021	0.020	0.020	0.017	0.020
Lithuania	0.005	0.005	0.008	0.007	0.009	0.008	0.008	0.010	0.012	0.016	0.002	0.008
Luxembourg	0.014	0.016	0.014	0.009	0.012	0.024	0.026	0.026	0.028	0.027	0.024	0.020
Hungary	0.001	0.002	0.004	0.003	0.002				0.003	0.003	0.004	0.003
Malta		0.049	0.058	0.037		0.039	0.029			0.030	0.026	0.038
Netherlands			0.031	0.031	0.030	0.024	0.025	0.025	0.029	0.029	0.036	0.029
Portugal		0.052	0.055	0.056		0.040	0.037	0.037	0.028	0.030	0.031	0.041
Slovenia	0.007	0.006	0.007	0.006	0.007	0.007	0.007	0.007	0.006	0.006	0.007	0.007
Finland			0.020	0.020	0.021	0.018	0.017	0.015	0.017	0.016	0.016	0.018
Sweden		0.032	0.037	0.038	0.038	0.041	0.038	0.042	0.054	0.058	0.052	0.043
United Kingdom (total)	0.035	0.036	0.033	0.040	0.043	0.045	0.042	0.045	0.045	0.045	0.046	0.041
Norway	0.025		0.025	0.033	0.026	0.025	0.024	0.035	0.025	0.031	0.024	0.027
Median	0.01	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.025
Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.024
Weighted average	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.030
Standard deviation	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	
Coefficient of variation	0.9	0.8	0.7	0.7	0.7	0.6	0.5	0.5	0.6	0.6	0.6	

## High estimate

A second approach to estimating public expenditure on drug-law offenders is to account for public expenditure on both sentenced and pre-trial drug-law offenders. Currently, there are no data available on the number of pre-trial prisoners whose main offence is a drug-law one. Therefore, to estimate this, the EMCDDA will assume that the proportion of sentenced drug-law offenders among sentenced prisoners is identical to the proportion of pre-trial drug-law offenders among all pre-trial offenders in prison.

Table 4 shows that, during the period 2000–10, pre-trial prisoners represented 28 % of total prisoners in the 22 countries that submitted data. This proportion varied markedly between countries. For example, in Italy, Luxembourg, the Netherlands and Malta over 40 % of prisoners were pre-trial; while in Bulgaria, the Czech Republic, Germany, Ireland and Lithuania this proportion was 20 % or less.

When we apply the high-estimate model, the estimated annual public expenditure on drug-law offenders in prison for these 22 countries during the period 2000–10 increases to 0.05 % of GDP, compared with 0.03% of GDP when the low-estimate model is applied (see Table 4).

TABLE 4

**Estimated public expenditure on total drug-law offenders in prisons (as a percentage of GDP)**

	Pre-trial prisoners (% of prison population)		Estimated proportion of sentenced drug-law offenders				Estimated public expenditure on drug-law offenders (% GDP)			
			% of total (pre-trial and sentenced) prisoners		% of sentenced prisoners		Low estimate		High estimate	
	2000–10 average	2010	2000–10 average	2010	2000–10 average	2010	2000–10 average	2010	2000–10 average	2010
Bulgaria	17	7.6	3.8	6.7	4.5	8.0	0.006	0.01	0.007	0.011
Czech Republic	17	11.2	6.6	5.8	7.6	6.6	0.013	0.01	0.015	0.012
Denmark	31	35.7	14.8	13.5	21.8	20.9	0.025	0.02	0.037	0.037
Germany	20	16.0	12.0	12.4	14.8	14.8	0.013	0.01	0.016	0.015
Estonia	27	22.6	7.4	12.7	9.3	16.5	0.023	0.03	0.029	0.038
Ireland	16	15.2	15.3	18.9	18.3	22.2	0.035	0.04	0.042	0.051
Greece	28	31.2	29.0	36.0	41.0	52.3	0.021	0.02	0.030	0.032
Spain	26	21.0	20.8	22.1	28.4	28.0	0.027	0.04	0.038	0.048
Italy	47	45.8	18.7	20.8	35.2	38.4	0.043	0.05	0.082	0.087
Cyprus	20	44.6	16.5	15.6	20.9	28.1	0.015	0.02	0.019	0.031
Latvia	34	28.4	6.8	10.7	9.4	15.0	0.020	0.02	0.027	0.024
Lithuania	18	17.8	3.8	0.8	4.4	1.0	0.008	0.00	0.009	0.002
Luxembourg	47	42.6	17.8	20.7	33.0	36.1	0.020	0.02	0.037	0.043
Hungary	28	32.5	1.5	2.1	2.1	3.1	0.003	0.00	0.004	0.005
Malta <sup>(1)</sup>	42	69.5	23.9	16.3	41.1	53.4	0.038	0.03	0.057	0.084
Netherlands	63	50.4	7.7	8.6	20.8	17.3	0.029	0.04	0.077	0.072
Portugal	25	11.0	22.6	16.8	30.4	21.5	0.041	0.03	0.055	0.040
Slovenia	34	15.4	6.9	6.6	10.5	9.6	0.007	0.01	0.010	0.011
Finland	18	22.6	13.5	12.0	16.0	15.0	0.018	0.02	0.021	0.020
Sweden	22	21.0	19.2	22.1	24.7	40.8	0.043	0.05	0.055	0.066
United Kingdom	18	22.4	13.1	12.6	16.1	14.9	0.041	0.05	0.051	0.056
Norway	24	30.5	23.7	18.2	30.4	26.2	0.027	0.02	0.035	0.035
<b>EU-22</b>	<b>28</b>	<b>27.9</b>	<b>14.3</b>	<b>14.9</b>	<b>19.2</b>	<b>20.1</b>	<b>0.030</b>	<b>0.03</b>	<b>0.05</b>	<b>0.05</b>

(<sup>1</sup>) There are no data for 2010. The latest available data concern 2009.

## Results

The low and the high estimates provide a range of figures. These suggest that public expenditure on drug-law offenders in prison as a proportion of GDP varied between 0.03 % and 0.05 % within the period 2000 and 2010, in 22 countries in Europe. Variations occurred across countries as a result of national differences in factors such as the crime rate, the legal framework, the judicial system, sentencing practices and also the proportion of pre-trial prisoners in the total population.

If we assume that, on average, the EU-27 public expenditure on drug-law offenders in prisons does not significantly differ from that of these 22 countries, then in 2010 the EU-27

governments' expenditure on drug-law offenders in prison would have ranged between EUR 3.7 billion and EUR 5.9 billion.

Table 5 shows that, of 22 countries, four spent less than 0.01 % of GDP on drug-law offenders in prison and 12 spent on average between 0.01 % and 0.03 % of GDP on drug-law offenders, if we account only for expenditure on sentenced prisoners (the low estimate). Thus, estimates exceed 0.03 % of GDP in six countries. If public spending on pre-trial prisoners is included (the high estimate), then the estimates exceeded 0.03 % of GDP for 11 countries, reaching a maximum of approximately 0.08 % of GDP in two countries.

TABLE 5

Estimates of public expenditure on drug-law offenders in prison for the period 2000–10 (as a percentage of GDP)

	min.	max.	0.01 % ≤	0.01 % > & ≤ 0.03 %	> 0.03 %
Bulgaria	0.006	0.007	X		
Czech Republic	0.013	0.023		X	
Denmark	0.025	0.037		X	X
Germany	0.013	0.016		X	
Estonia	0.023	0.029		X	
Ireland	0.035	0.042			X
Greece	0.021	0.030		X	
Spain	0.027	0.038		X	X
Italy	0.043	0.082			X
Cyprus	0.015	0.019		X	
Latvia	0.020	0.027		X	
Lithuania	0.008	0.009	X		
Luxembourg	0.020	0.037		X	
Netherlands	0.029	0.077		X	X
Hungary	0.003	0.004	X		
Malta	0.038	0.057			X
Portugal	0.041	0.055			X
Slovenia	0.007	0.010	X		
Finland	0.018	0.021		X	
Sweden	0.043	0.055			X
United Kingdom	0.041	0.051			X
Norway	0.027	0.035		X	X
EU-22	0.03	0.05		X	X

## Comparison with existing national estimates

The estimates provided by the model can be broadly compared with existing national estimates of public expenditure on drug-law offenders in prison or can be analysed from the perspective of public expenditure on drug supply reduction activities overall. Public expenditure on supply reduction activities includes spending on police forces, law courts and prisons. There are two approaches to measuring overall expenditure on drug supply activities most frequently taken by countries estimating expenditure on supply reduction. The first, proposed by Reuter (2006), includes expenditure on prisons and says that public expenditure on drug supply reduction is related to law enforcement (i.e. includes 'Enforcement programmes: programmes aimed at traffickers and producers to shift up the supply curve for drugs [...]; programmes aimed at users and retailers raise the transaction costs of buying drugs'). The second classification was set up by the EMCDDA (2008) and is based on the COFOG classification of public expenditures. In this case, public expenditures on supply reduction activities are included in the 'Public order and safety' class of expenditure and includes expenditure on prisons.

It should be noted, however, that national estimates are not fully comparable either with one another or with EMCDDA estimates, whatever the classification of public expenditures applied. They provide estimates for different years, use different methodologies and may cover slightly different types of expenditure. Therefore, the results presented in Table 6 cannot serve as a definitive benchmark for this analysis; they can only suggest indicative estimated ranges. Furthermore, when national estimates concern either public expenditure on law enforcement or public order and safety, they mostly cover total public expenditure on drug supply reduction activities and have a much wider scope than prison expenditure. Since they cover expenditure other than on prisons, these estimates should be higher.

Table 6 shows that, for 9 out of 12 countries, EMCDDA estimates of public expenditure on drug-law offenders in prison are significantly lower than the national estimates of public expenditure on drug supply reduction, and represent between 8 % and 81 % of these national estimates. In three countries, our estimates were not compatible, as they were larger than the overall estimate for supply reduction. An explanation is available for Cyprus, where the national estimate considered only wages and not expenditures such as the amortisation of the capital invested in prison infrastructures, energy, etc. (National Focal Point, 2011) <sup>(10)</sup>. There is no information available concerning the methodology used by Latvia and Portugal, and therefore the discrepancies cannot be explored.

A small number of countries also provided an estimate of public expenditure on drug-law offenders in prison; these are more directly comparable with the estimates provided in this report. In most cases, national estimates are higher than those produced in this report. This can be explained for the UK and the Czech Republic, as national estimates also included expenditure on prisoners who had committed an offence while under the influence of drugs (i.e. not only drug-law offenders). In the Netherlands (2003) and Sweden, national estimates included spending on drug-law offenders in custody, on conditional release and on probation, whereas the COFOG data in the current study classify these expenses under 'Law courts' rather than 'Prisons'. For the other countries, either the method applied is significantly different from the one suggested here or there is no information available. Therefore, all in all, although national estimates do not fit particularly well with EMCDDA estimates, these results were to be expected as the parameters and assumptions differed markedly.

<sup>(10)</sup> This study estimated public expenditure on drug-law offenders in prisons by multiplying the average salary of the law enforcement officers involved by the number of officers in charge of monitoring drug-law offenders in prison.

TABLE 6

**Estimates of public expenditure on drug supply reduction and on drug-law offenders: national estimates and EMCDDA estimates (as a percentage of GDP)**

	Year	National estimates					EMCDDA estimates	
		Item	Supply reduction (% GDP)		Prisons (% GDP)		Prisons (% GDP)	
			Low	High	Low	High	Low	High
<b>Czech Republic</b>	<b>2005</b>	Public order and safety <sup>(1)</sup>	0.13			0.036	0.010	0.011
<b>Germany</b>	<b>2006</b>	Public order and safety <sup>(2)</sup>	0.14	0.18	0.021	0.037	0.013	0.015
<b>Italy</b>	<b>2009</b>	Law enforcement <sup>(3)</sup>	0.13				0.041	0.084
<b>Cyprus</b>	<b>2010</b>	Law enforcement <sup>(4)</sup>	0.01				0.015	0.019
<b>Latvia</b>	<b>2008</b>	Public order and safety <sup>(5)</sup>	0.003			0.002	0.020	0.027
<b>Luxembourg</b>	<b>2009</b>	Public order and safety <sup>(6)</sup>	0.06				0.044	0.047
<b>Hungary</b>	<b>2007 (*)</b>	Law enforcement <sup>(7)</sup>	0.03				0.003	0.004
<b>Netherlands</b>	<b>2003</b>	Law enforcement <sup>(8)</sup>	0.35			0.118	0.031	0.097
	<b>2006</b>					0.04 <sup>(9)</sup>	0.025	0.067
<b>Portugal</b>	<b>2005</b>	Public order and safety <sup>(10)</sup>	0.04				0.040	0.052
<b>Finland</b>	<b>2009</b>	Public order and safety <sup>(11)</sup>	0.04				0.016	0.019
<b>Sweden</b>	<b>2002</b>	Law enforcement <sup>(12)</sup>	0.12	0.30		0.048	0.037	0.047
<b>United Kingdom</b>	<b>2005</b>	Public order and safety <sup>(13)</sup>	0.29			0.08	0.045	0.054

(\*) The EMCDDA's estimates concern 2008, while national estimates concern 2007.

<sup>(1)</sup> NR 2007, Czech Republic.

<sup>(2)</sup> Mostardt et al. (2010).

<sup>(3)</sup> NR 2011, Italy.

<sup>(4)</sup> NR 2011, Cyprus.

<sup>(5)</sup> Vanags and Zasova (2010).

<sup>(6)</sup> NR 2010, Luxembourg.

<sup>(7)</sup> NR 2009, Hungary.

<sup>(8)</sup> Righter (2006).

<sup>(9)</sup> Moolenaar, 2009.

<sup>(10)</sup> EMCDDA, 2008.

<sup>(11)</sup> NR 2011, Finland.

<sup>(12)</sup> Ramstedt, 2006.

<sup>(13)</sup> NR 2007, United Kingdom.

Estimates provided by the model and by the existing national estimates for public expenditure on drug-law offenders in prison are presented in Table 6. There is no obvious agreement between the estimates provided in this study and those produced at national level; however, methodological differences make it difficult to draw direct comparisons.

In future, it would be advantageous to have access to further information about the methods used in national estimates, since this would make the analysis of results more meaningful and would facilitate useful comparisons with other studies.

### Expenditures on drug-law offenders in prison and total public expenditures

Until now, this report has considered estimates of public expenditure on drug-law offenders in prison only as a proportion of GDP. Another way to look at the subject is to consider what proportion of total public expenditure these

estimates represent. Table 7 shows that in 2010 public expenditure on drug-law offenders in prison ranged between 0.07 % and 0.09 % of the total public expenditure of the 22 European countries. The yearly average over the period 2000–10 varied more. In the early 2000s, when data were only available for a few countries, the proportion was 0.09 %–0.12 %. After 2001, the proportion declined slightly and varied between 0.06 % and –0.9 % of total public expenditure.

The number of detainees for drug-law offences varied in many countries during the period 2000–10 (see Annex 1), and it is interesting to examine whether or not public expenditure on drug-law offenders varied accordingly. Annex 2 and Annex 3 show that neither the real growth (after correction for inflation) nor the nominal growth of this estimated public expenditure showed a clear pattern, with the exception of 2009 and 2010, when more than half of the countries registered decreases in expenditure, probably associated with public-sector austerity measures following the economic recession of 2008.

TABLE 7

Estimated public expenditure on drug-law offenders in prison (as a percentage of total public expenditure)

	2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		(2000–10)	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Bulgaria			0.002	0.002	0.001	0.003	0.01	0.01					0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.01	0.02
Czech Republic							0.02	0.02			0.02	0.03	0.03	0.04	0.03	0.04	0.05	0.06	0.03	0.03	0.02	0.03	0.03	0.03
Denmark			0.04	0.06	0.04	0.06	0.04	0.05	0.05	0.07	0.06	0.08	0.05	0.08	0.06	0.08	0.05	0.08	0.05	0.08	0.04	0.06	0.05	0.07
Germany					0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Estonia	0.01	0.01			0.03	0.04	0.08	0.07	0.03	0.02	0.04	0.05	0.04	0.05	0.05	0.07	0.17	0.23	0.09	0.11	0.07	0.09	0.06	0.08
Ireland					0.08	0.10					0.00	0.00	0.07	0.09	0.08	0.10	0.09	0.11	0.09	0.11	0.06	0.08	0.07	0.08
Greece							0.03	0.04					0.06	0.08							0.04	0.06	0.04	0.06
Spain	0.07	0.08	0.08	0.10	0.07	0.09	0.07	0.09	0.05	0.08	0.06	0.08	0.07	0.09	0.07	0.10	0.07	0.11	0.06	0.09	0.08	0.10	0.07	0.09
Italy	0.10	0.19	0.10	0.18	0.10	0.18	0.11	0.19	0.11	0.17	0.11	0.17	0.06	0.14	0.06	0.14	0.07	0.17	0.08	0.16	0.09	0.17	0.09	0.17
Cyprus					0.03	0.03	0.02	0.03	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.04	0.05	0.03	0.04	0.04	0.07	0.03	0.04
Latvia															0.06	0.08	0.05	0.07	0.04	0.06	0.04	0.05	0.05	0.07
Lithuania	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.00	0.00	0.02	0.03
Luxembourg	0.04	0.08	0.04	0.08	0.03	0.07	0.02	0.04	0.03	0.07	0.06	0.11	0.07	0.13	0.07	0.13	0.07	0.12	0.06	0.11	0.06	0.10	0.05	0.09
Hungary	0.001	0.003	0.001	0.004	0.002	0.01	0.001	0.01	0.001	0.005							0.002	0.006	0.001	0.005	0.002	0.007	0.001	0.01
Malta			0.01	0.12	0.01	0.14	0.01	0.08			0.01	0.09	0.005	0.07					0.0001	0.07			0.01	0.09
Netherlands					0.07	0.22	0.07	0.22	0.07	0.18	0.05	0.14	0.06	0.16	0.06	0.17	0.06	0.19	0.06	0.18	0.07	0.16	0.06	0.18
Portugal			0.12	0.18	0.13	0.19	0.13	0.19			0.09	0.11	0.08	0.11	0.08	0.10	0.06	0.08	0.06	0.08	0.06	0.08	0.09	0.12
Slovenia	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02
Finland					0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.04	0.03	0.04	0.03	0.04	0.03	0.04	0.03	0.03	0.03	0.04	0.04	0.04
Sweden			0.06	0.08	0.07	0.08	0.07	0.09	0.07	0.09	0.08	0.10	0.07	0.09	0.08	0.10	0.10	0.13	0.11	0.14	0.10	0.13	0.08	0.10
United Kingdom	0.10	0.12	0.09	0.11	0.08	0.10	0.09	0.12	0.10	0.12	0.10	0.12	0.10	0.12	0.10	0.13	0.09	0.12	0.09	0.11	0.09	0.11	0.09	0.12
Norway	0.06	0.08			0.05	0.07	0.07	0.07	0.06	0.08	0.06	0.08	0.06	0.08	0.09	0.11	0.06	0.08	0.07	0.09	0.05	0.08	0.06	0.08
EU-22	0.09	0.12	0.08	0.11	0.06	0.08	0.07	0.09	0.07	0.09	0.07	0.09	0.06	0.09	0.06	0.09	0.06	0.09	0.06	0.08	0.07	0.09	0.07	0.09

## Conclusion

The EMCDDA aims to provide support to EU Member States by analysing examples of data sources and models that can be or have been used with success to estimate drug-related public expenditure on different components of drug policy. As a first step, the EMCDDA has estimated the amount of annual public expenditure on drug-law offenders in prisons in Europe, using harmonised data sources and a simple model. Based on data provided by Eurostat and the Council of Europe, the model applies the proportion of sentenced prisoners who have a drug-law offence as their main offence to total public expenditure on prisons.

However, there are limitations in the data. For example, data are missing for 8 of the 30 countries that participate in the EMCDDA's Reitox network and, for the remaining 22, data series are not always complete for the period 2000–10 (though there were improvements in the data submitted during this period). The penal statistics provided by the Council of Europe have some additional limitations, such as the non-application of the 'main offence rule' in some countries and the lack of information about the main offence for which pre-trial prisoners are prosecuted. Public expenditure data from Eurostat also face some harmonisation issues, associated with the difficulty of harmonising the classification of public expenditure by main purpose and with different national accountancy practices. Furthermore, there are no data available for the lengths of periods of imprisonment or the proportion of prisoners under special security measures according to type of offence. These data limitations reduce the accuracy of estimates and demand caution when analysing results. Nevertheless, first estimates appear to be promising.

Within this framework, the EMCDDA has calculated a range of estimates of public expenditures on drug-law offenders in prison. The low estimate considers only those prisoners who have been sentenced for a drug-law offence. The high estimate also includes pre-trial prisoners who may be sentenced for a drug-law offence (assuming that the proportion of drug-law offenders among pre-trial prisoners is identical to that of drug-law offenders among sentenced prisoners). Applying these low and high estimates, between 2000 and 2010, public expenditure on drug-law offenders in 22 European countries is estimated to have been within the range of 0.03 %–0.05 % of GDP. With the exception of the first

two years, when the number of countries with available information was limited, these proportions of GDP remained stable. When applying these percentages to the whole EU for the year 2010, public expenditure on drug-law offenders in prison is estimated to have been within the range of EUR 3.7 billion to EUR 5.9 billion.

Over the period 2000–10, it is estimated that 12 out of the 22 countries spent on average between 0.01 % and 0.03 % of GDP on drug offenders in prisons, if we account only for expenditure on sentenced prisoners. If public spending on pre-trial prisoners is included, then the estimates exceeded 0.03 % of GDP in 10 countries, reaching a maximum of approximately 0.08 % of GDP in 2 countries.

Overall, there is no obvious agreement between the EMCDDA estimates and national estimates. However, differences are to be expected because the estimates used different methods and often involved slightly different definitions of expenditure. Further information about the methods used in arriving at national estimates would be advantageous to facilitate the comparison of estimates.

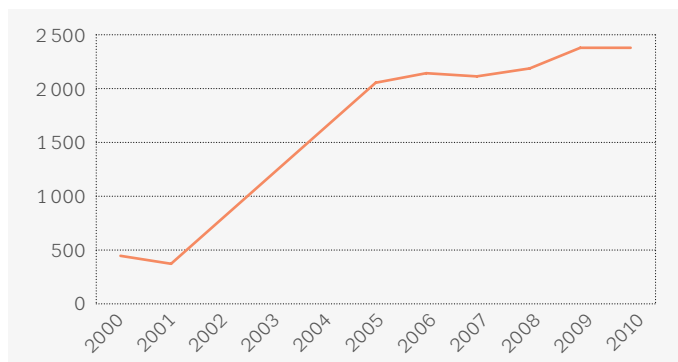
The estimates provided by the model have been used in an analysis of public expenditure on drug-law offenders as a proportion of total national public expenditure. Since 2006, in the 22 countries for which data are available, the proportion of expenditure on drug-law offenders in prisons has varied within the range of 0.06 %–0.9 % of total public expenditure. It is not possible to define a clear trend over time, except in 2009 and 2010. In those years, more than half of the countries registered decreases in expenditure, probably associated with public-sector austerity measures introduced by most European countries as a result of the economic recession of 2008.

While recognising the limitations imposed by currently available data sets, this exercise aims at enabling a step forward in the estimation of drug-related public expenditure in Europe. It provides an example of a methodology that can be used to arrive at comparable national estimates and presents a range of estimates of European public expenditure on drug-law offenders in prison. For the sake of accuracy, more complete data sets with further information on the characteristics of prisoners and their costs would be a valuable asset.

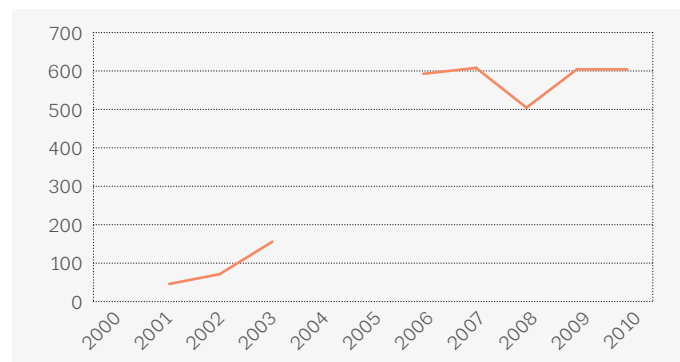
## Annex 1

Number of sentenced drug-law offenders in prison by country, 2000–10

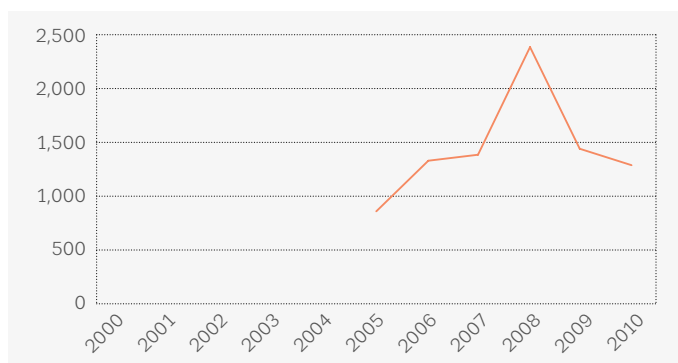
Belgium



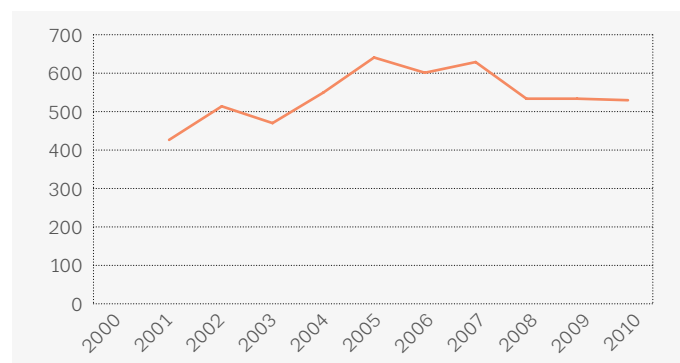
Bulgaria



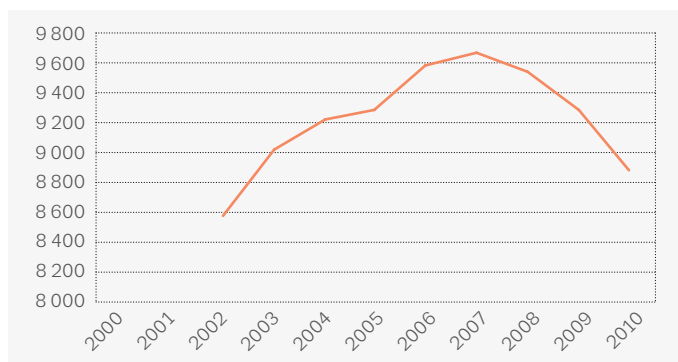
Czech Republic



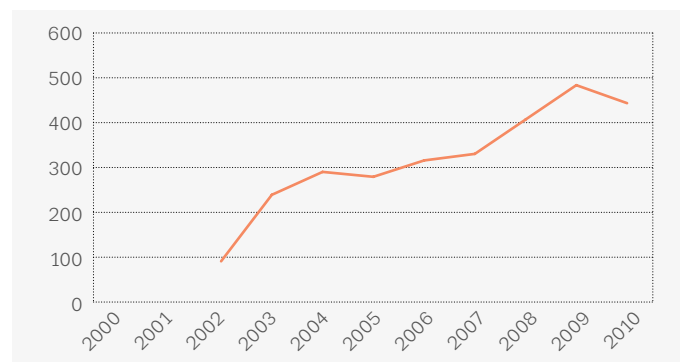
Denmark



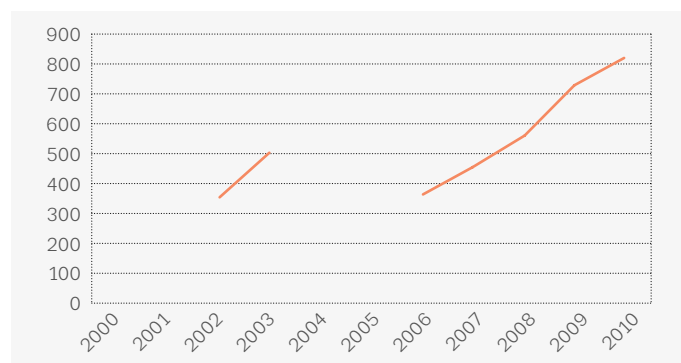
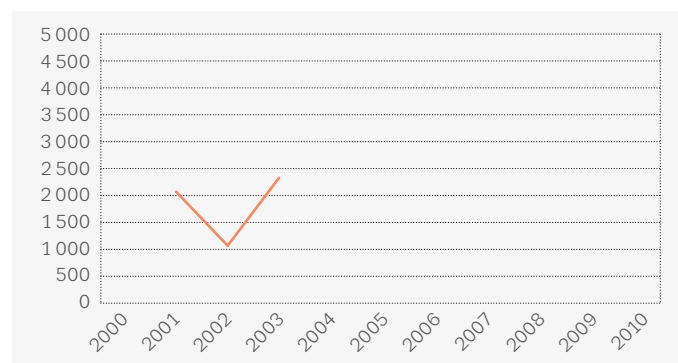
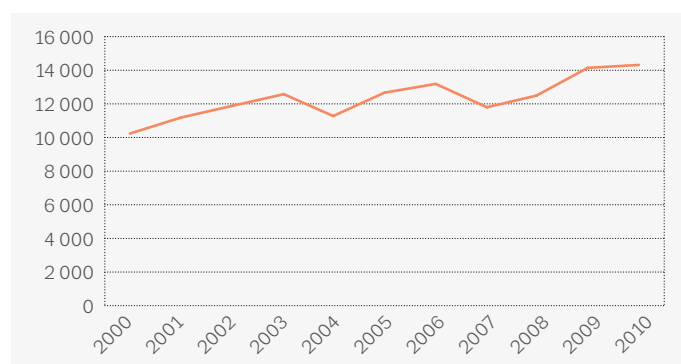
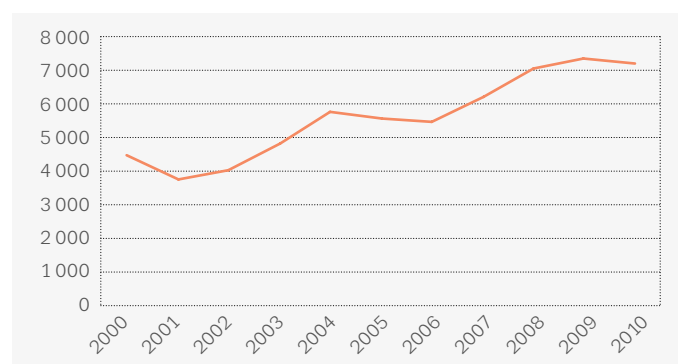
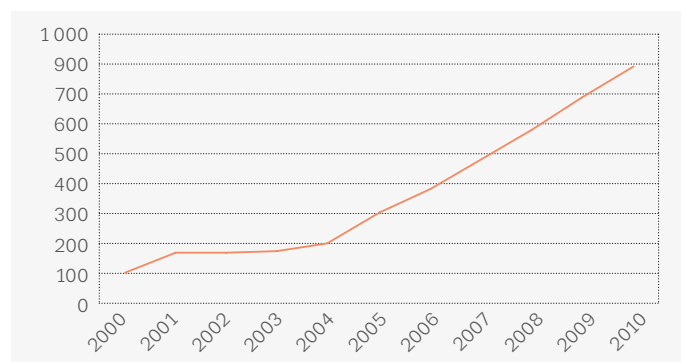
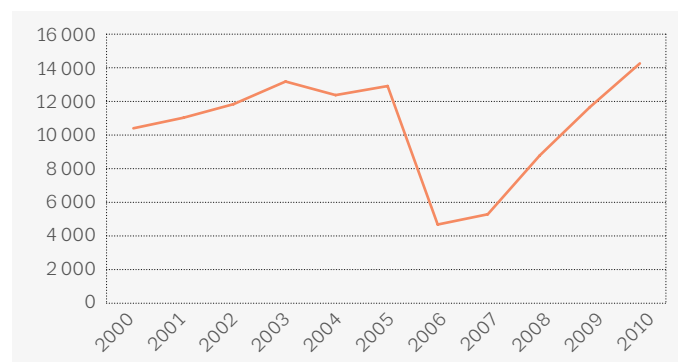
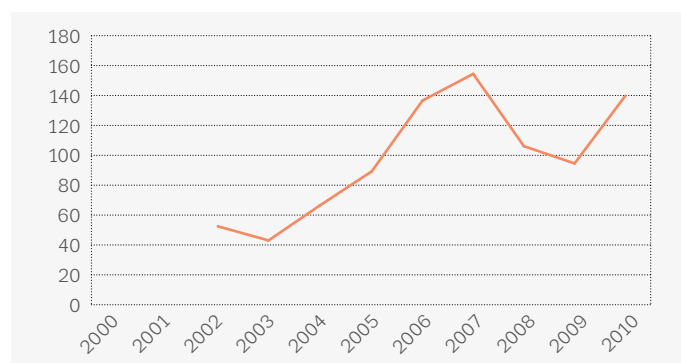
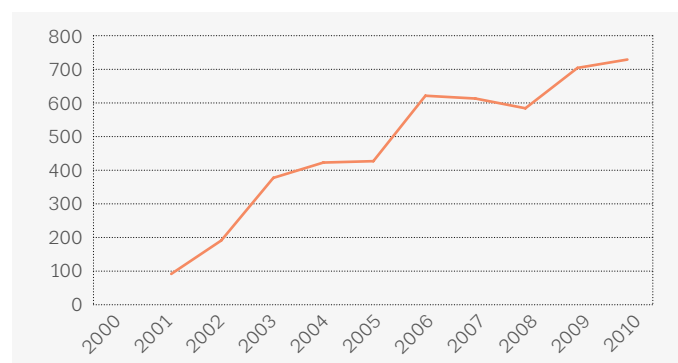
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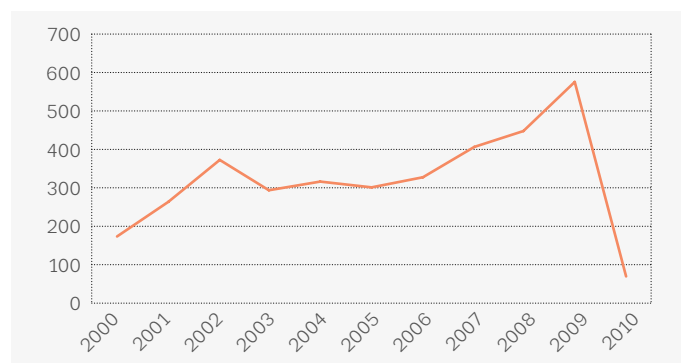
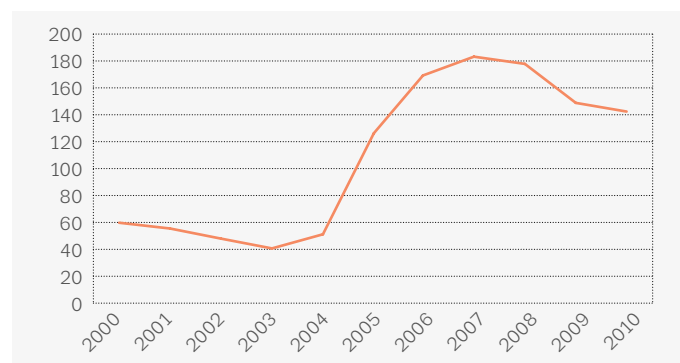
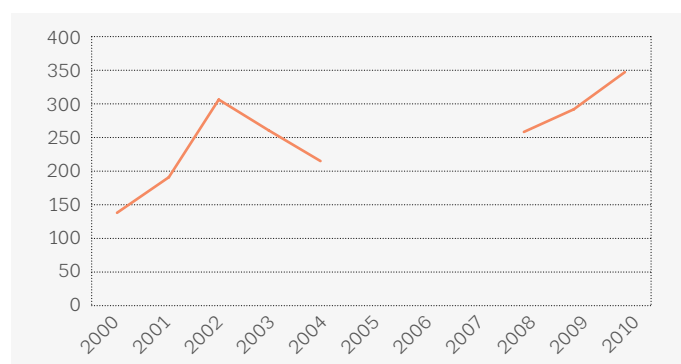
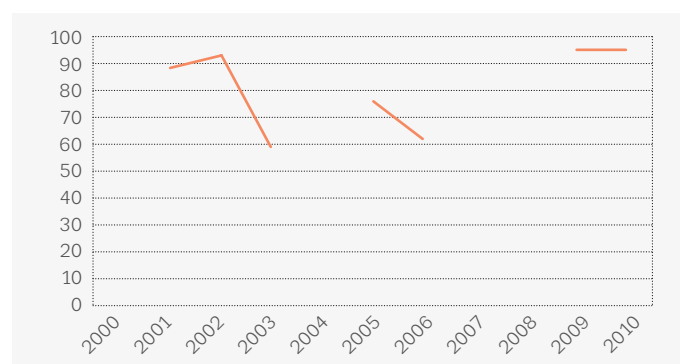
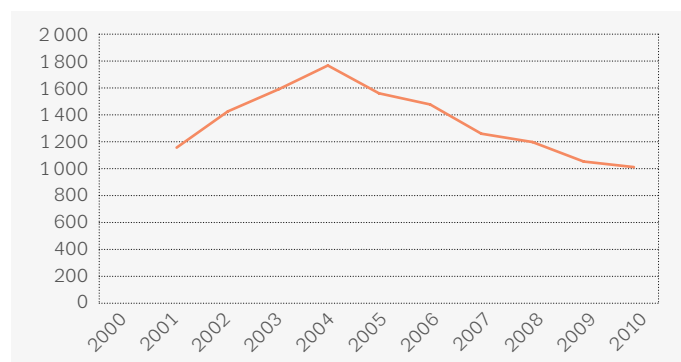
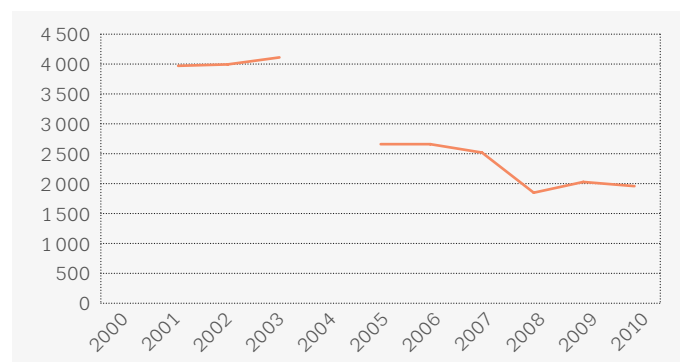
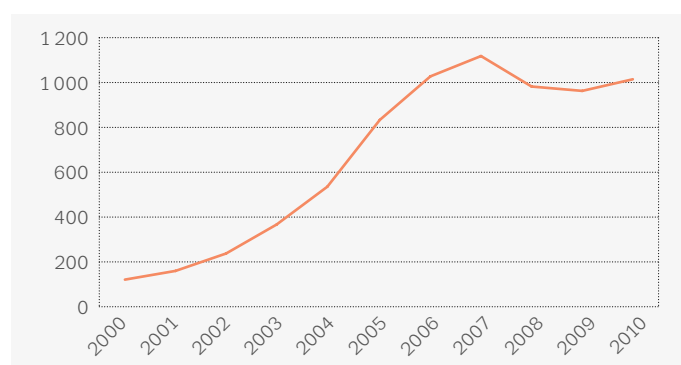
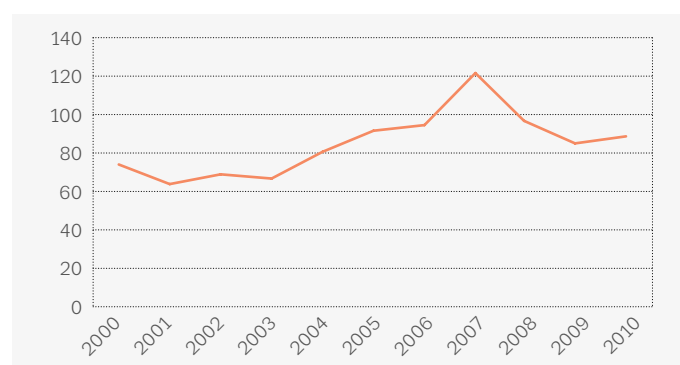


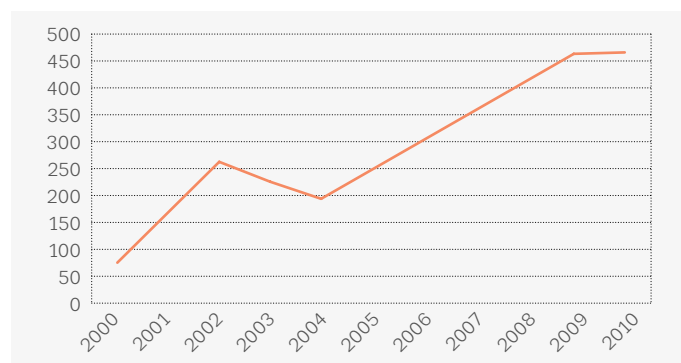
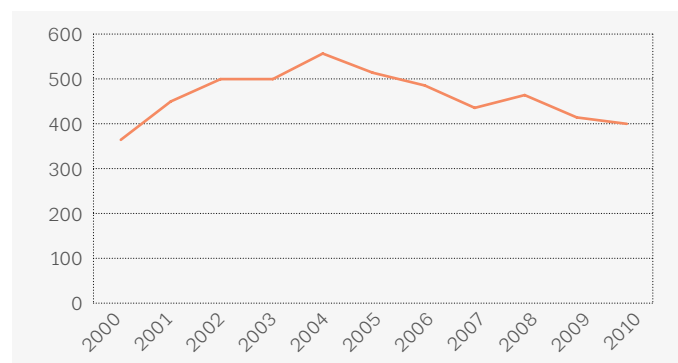
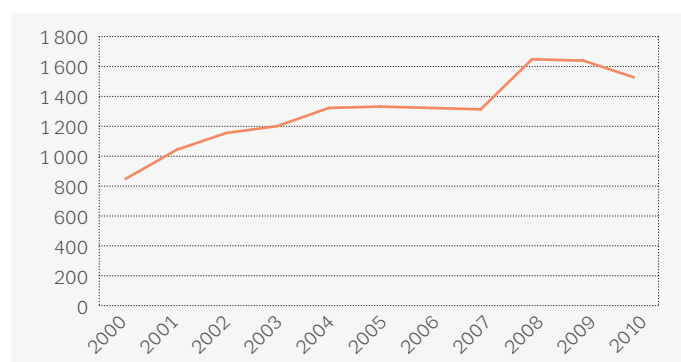
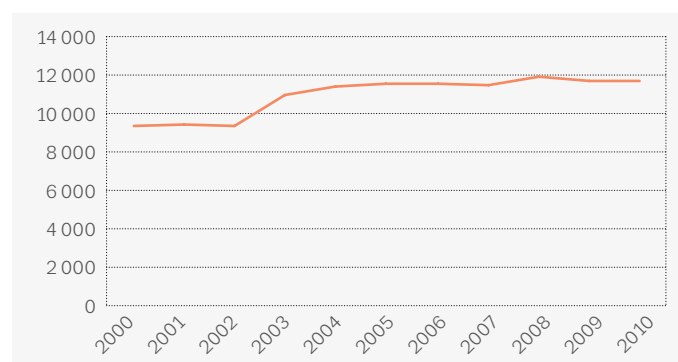
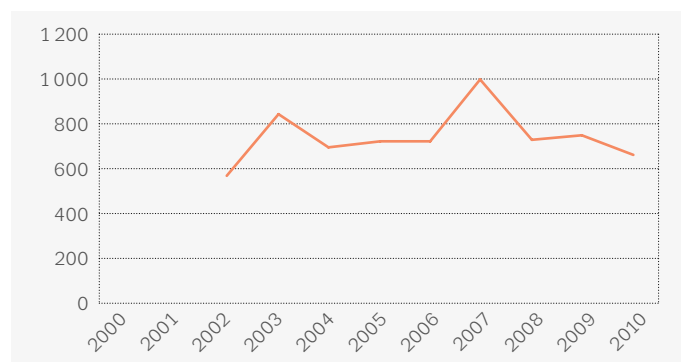
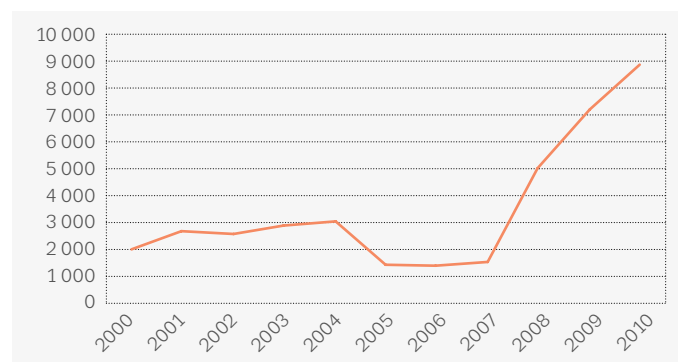
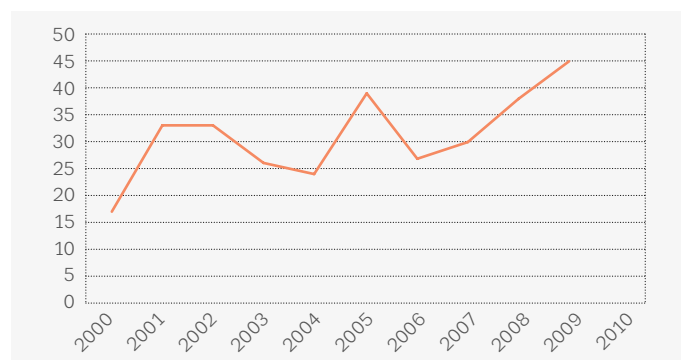
Estonia





**Ireland****Greece****Spain****France****Croatia****Italy****Cyprus****Latvia**

**Lithuania****Luxembourg****Hungary****Malta****Netherlands****Portugal****Romania****Slovenia**

**Slovakia****Finland****Sweden****United Kingdom****Norway****Turkey****Iceland**

Note: No data available for Poland and Austria.

Source: Aebi and Delgrand (2012), 'Annual Penal Statistics of the Council of Europe SPACE I, survey 2010'.

## Annex 2

Estimated growth of public expenditure on sentenced drug-law offenders in prison, corrected for inflation (based on the proportion of sentenced drug-law offenders to total sentenced and pre-trial prisoners; growth rates, deflated 1995 = 100)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bulgaria		64 %	153 %				29 %	-20 %	31 %	2 %
Czech Republic						58 %	10 %	69 %	-44 %	-13 %
Denmark		6 %	-10 %	24 %	22 %	-3 %	6 %	-10 %	2 %	-2 %
Germany			3 %	4 %	0 %	-5 %	1 %	1 %	0 %	-1 %
Estonia			169 %	-56 %	20 %	18 %	54 %	265 %	-50 %	-3 %
Ireland			39 %				22 %	17 %	9 %	2 %
Greece										
Spain	18 %	-5 %	-3 %	-12 %	17 %	15 %	2 %	9 %	-1 %	-2 %
Italy	-1 %	9 %	13 %	-5 %	-2 %	-44 %	-4 %	33 %	10 %	15 %
Cyprus			-12 %	-1 %	47 %	44 %	56 %	1 %	-21 %	-17 %
Latvia								-9 %	-24 %	2 %
Lithuania	23 %	58 %	4 %	29 %	0 %	21 %	31 %	29 %	4 %	-90 %
Luxembourg	10 %	-10 %	-29 %	28 %	121 %	17 %	9 %	4 %	-9 %	-2 %
Hungary	39 %	126 %	-23 %	-11 %					-20 %	32 %
Malta		19 %	-37 %			-24 %				-12 %
Netherlands			1 %	0 %	-19 %	10 %	4 %	14 %	-4 %	27 %
Portugal		8 %	2 %			-5 %	3 %	-25 %	6 %	4 %
Slovenia	-8 %	3 %	-6 %	8 %	14 %	-7 %	16 %	-11 %	-6 %	19 %
Finland				13 %	-13 %	-3 %	-4 %	12 %	-13 %	3 %
Sweden		18 %	6 %	4 %	8 %	-1 %	14 %	24 %	-8 %	5 %
United Kingdom	3 %	-5 %	13 %	15 %	8 %	-3 %	10 %	-16 %	-14 %	6 %
Norway			27 %	-19 %	13 %	4 %	49 %	-26 %	8 %	-10 %

## Annex 3

Estimated nominal growth of public expenditure on sentenced drug-law offenders in prison (based on the proportion of sentenced drug-law offenders to total sentenced and pre-trial prisoners; growth rates, nominal terms)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bulgaria		73 %	158 %				39 %	-11 %	34 %	5 %
Czech Republic						61 %	13 %	80 %	-44 %	-12 %
Denmark		9 %	-8 %	25 %	24 %	-1 %	8 %	-7 %	3 %	0 %
Germany			4 %	5 %	1 %	-3 %	3 %	4 %	0 %	0 %
Estonia			173 %	-55 %	25 %	23 %	64 %	304 %	-50 %	0 %
Ireland			45 %				26 %	21 %	7 %	0 %
Greece										
Spain	21 %	-1 %	0 %	-10 %	21 %	19 %	5 %	14 %	-1 %	0 %
Italy	1 %	11 %	16 %	-2 %	1 %	-42 %	-2 %	38 %	11 %	17 %
Cyprus			-9 %	1 %	50 %	47 %	59 %	5 %	-21 %	-15 %
Latvia								5 %	-21 %	0 %
Lithuania	25 %	58 %	3 %	30 %	2 %	26 %	39 %	43 %	8 %	-90 %
Luxembourg	13 %	-8 %	-27 %	32 %	129 %	21 %	12 %	9 %	-9 %	1 %
Hungary	51 %	138 %	-19 %	-4 %					-17 %	38 %
Malta		22 %	-35 %			-22 %				-10 %
Netherlands			3 %	1 %	-18 %	12 %	6 %	17 %	-3 %	28 %
Portugal		11 %	5 %			-2 %	6 %	-23 %	5 %	5 %
Slovenia	0 %	11 %	0 %	12 %	17 %	-5 %	21 %	-6 %	-5 %	21 %
Finland				13 %	-12 %	-2 %	-3 %	17 %	-11 %	4 %
Sweden		21 %	9 %	5 %	8 %	0 %	16 %	28 %	-6 %	7 %
United Kingdom	4 %	-4 %	15 %	16 %	10 %	0 %	13 %	-13 %	-12 %	10 %
Norway			30 %	-18 %	15 %	7 %	50 %	-23 %	10 %	-8 %

## References

- | Aebi, M. and Delgrande, N. (2012), *Annual Penal Statistics of the Council of Europe SPACE I survey 2010*, Council of Europe, Strasbourg, 23 March 2012, available at: <http://www.unil.ch/space/>
- | Aebi M., Aubusson de Cavarlay, B. and Stadnic, N. (2007), 'Prison entries and length of detention. The diversity of the correctional systems situation in Europe', *Penal Issues*, March 2007, Centre for Sociological Research on Law and Criminal Justice Institutions (CESDIP), Guyancourt, France.
- | Brand, S. and Price, R. (2000), *The economic and social costs of crime*, Home Office research study 217, Home Office, London.
- | Cyprus national focal point (2011), *2011 National report (2010 data)*, available at: <http://www.emcdda.europa.eu/html.cfm/index191728EN.html>
- | Czech national focal point, (2007), *2007 National report (2006 data)*, available at: <http://www.emcdda.europa.eu/html.cfm/index61173EN.html>
- | EMCDDA (2008), *Towards a better understanding of drug-related public expenditure in Europe*, Selected issue, Office for Official Publications of the European Communities, Luxembourg.
- | EMCDDA (2007), *Drugs and crime: a complex relationship*, Drugs in focus, Office for Official Publications of the European Communities, Luxembourg.
- | Finnish national focal point (2011), *2011 National report*, available at: <http://www.emcdda.europa.eu/html.cfm/index191720EN.html>
- | Hungarian national focal point (2009), *2009 National report*, available at: <http://www.emcdda.europa.eu/html.cfm/index142720EN.html>
- | Italian national focal point, (2011), *2011 National report (2010 data)*, available at: <http://www.emcdda.europa.eu/html.cfm/index191672EN.html>
- | Luxembourg national focal point (2010), *2010 National report (2009 data)*, available at: <http://www.emcdda.europa.eu/html.cfm/index142492EN.html>
- | Moolenaar, D. (2009), 'Modelling criminal justice system costs by offence: lessons from the Netherlands', *European Journal of Crime Policy Research* (2009)15:309–326.
- | Mostardt, S., Floeter, S., Neumann, A., Wasem, J., and Pfeiffer-Gerschel, T. (2010) 'Schätzung der Ausgaben der öffentlichen Hand durch den Konsum illegaler Drogen in Deutschland', in: *Das Gesundheitswesen* 73:12, pp. 886–894.
- | Ramstedt, M. (2006), 'What drug policies cost. Estimating drug policy expenditures in Sweden, 2002: work in progress', in *Addiction* 101, pp. 330–338.
- | Reuter, P. (2006), 'What drug policies cost: estimating government drug policy expenditures', *Addiction* 101, pp. 315–322.
- | Righter, H. (2006), 'What drug policies cost. Drug policy spending in the Netherlands in 2003', *Addiction* 101, pp. 323–9.
- | United Kingdom national focal point (2007), *2007 National report*, available at: <http://www.emcdda.europa.eu/html.cfm/index61249EN.html>
- | United Nations (2008), Classification of the Functions of Government, 'Detailed structure and explanatory notes', United Nations Statistics Division, available at: <http://unstats.un.org/unsd/cr/registry/regcst.asp?CI=4>
- | Vanags A. and Zasova A. (2010), *Budget and non-budget social costs of drug abuse in Latvia in 2008*, Analytical report by BICEPS, Centre of Health Economics.
- | Vander Laenen, F., Vandam, L. and De Ruyver, B. (2008), 'Studies on public expenditure in Europe: possibilities and limitations — measurement issues in drug policy analysis', *Bulletin on Narcotics* Vol. LX, United Nations Office on Drugs and Crime, New York, 27–44.

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