The Cost of Non-Europe in the area of Organised Crime and Corruption

Annex II - Corruption
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Annex II- The Cost of Non-Europe in the Area of Corruption

Research paper by RAND Europe

On 7 September 2015, the Coordinators of the Committee on Civil Liberties, Justice and Home Affairs (LIBE) requested the Directorate-General for Parliamentary Research Services (EPRS) to prepare a ‘Cost of Non Europe Report’ on Organised Crime and Corruption to support work on the own-initiative report on the fight against corruption and follow-up of the CRIM committee resolution (2015/2110 (INI), Rapporteur Laura Ferrara (EFDD, IT)).

In response to this request, a general assessment\(^1\), bringing together the research findings of three studies commissioned from outside experts, has been drawn up by the European Added Value Unit of the Directorate for Impact Assessment and European Added Value within DG EPRS. Its aim is to help improve understanding of the subject matter by providing evidence of the specific benefits that could be achieved through European action to fight organised crime and corruption.

The three studies commissioned from outside experts are published as separate documents:

- RAND Europe, research paper on the costs of non-Europe in the area of corruption (PE 579.319);
- Centre for European Policy Studies (CEPS) & Economisti Associati srl, research paper on the costs of non-Europe in the area of organised crime (PE 579.318); and
- Prof. Federico Varese, briefing paper providing an overall assessment of organised crime and corruption (PE 579.320).

Abstract

Corruption is a phenomenon with significant negative consequences for the EU and its Member States. This research paper uses a mix of methodologies to quantify the overall costs of corruption in the EU in economic, social and political terms. The findings, based on new analysis, suggest that corruption costs the EU between €179bn and €990bn in GDP terms on an annual basis.

Current anti-corruption measures relevant to Member States and the EU as a whole are described and their effectiveness in reducing the levels of, and opportunities for, corruption are assessed. Eight potential areas for EU action are identified that might address the barriers to the effectiveness of current measures. The costs of non-Europe are calculated in relation to two of these, as well as in relation to the implementation of recently created EU laws.

AUTHORS
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LINGUISTIC VERSIONS
Original: EN

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PE 579.319
ISBN 978-92-823-8873-0
doi:10.2861/369191
QA-04-16-192-EN-N
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACR</td>
<td>Anti-Corruption Report</td>
</tr>
<tr>
<td>ACWG</td>
<td>Anti-Corruption Working Group</td>
</tr>
<tr>
<td>ANTICORRP</td>
<td>FRA project on fundamental rights indicators</td>
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<tr>
<td>BAK</td>
<td>Bundesamt zur Korruptionsprävention und Korruptionsbekämpfung (Federal Office of Anti-Corruption)</td>
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<tr>
<td>BEEPS</td>
<td>Business Environment and Enterprise Performance Survey</td>
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<td>BPI</td>
<td>Bribery Perception Index</td>
</tr>
<tr>
<td>CBA</td>
<td>Centralne Biuro Antykorupcyjne (Central Bureau of Anti-Corruption)</td>
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<tr>
<td>CEPEJ</td>
<td>Council of Europe Commission for the Efficiency of Justice</td>
</tr>
<tr>
<td>CJEU</td>
<td>Court of Justice for the European Union</td>
</tr>
<tr>
<td>CoE</td>
<td>Council of Europe</td>
</tr>
<tr>
<td>CPI</td>
<td>Corruption Perception Index</td>
</tr>
<tr>
<td>COC</td>
<td>Control of Corruption Index</td>
</tr>
<tr>
<td>CPV</td>
<td>Common Procurement Vocabulary (CPV)</td>
</tr>
<tr>
<td>CoNE</td>
<td>Cost of Non-Europe</td>
</tr>
<tr>
<td>CRIM</td>
<td>Committee on organised crime, corruption and money laundering</td>
</tr>
<tr>
<td>CVM</td>
<td>Cooperation and Verification Mechanism</td>
</tr>
<tr>
<td>EBRD</td>
<td>European Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>ECA</td>
<td>European Court of Auditors</td>
</tr>
<tr>
<td>ECOSOC</td>
<td>European Economic and Social Committee</td>
</tr>
<tr>
<td>EP</td>
<td>European Parliament</td>
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<tr>
<td>EPPO</td>
<td>European Public Prosecutor’s Office</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>EUJS</td>
<td>European Union Justice Scoreboard</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GRECO</td>
<td>Group of States against Corruption</td>
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<tr>
<td>ICRG</td>
<td>International Country Risk Guide</td>
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<tr>
<td>IDEA</td>
<td>International Institute for Democracy and Electoral Assistance</td>
</tr>
<tr>
<td>IPP</td>
<td>Institute for Public Policy</td>
</tr>
<tr>
<td>JHA</td>
<td>Justice and Home Affairs</td>
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<tr>
<td>LIBE</td>
<td>Civil Liberties, Justice and Home Affairs</td>
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<tr>
<td>MEP</td>
<td>Member of the European Parliament</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<td>---------</td>
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<tr>
<td>MPS</td>
<td>Member of Parliament</td>
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<tr>
<td>NGO</td>
<td>Nongovernmental Organisation</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>OLAF</td>
<td>European Anti-Fraud Office</td>
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<tr>
<td>OLS</td>
<td>ordinary least squares</td>
</tr>
<tr>
<td>PIF Convention</td>
<td>Convention on the protection of the EU’s financial interests</td>
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<tr>
<td>OoG</td>
<td>Quality of Government</td>
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<tr>
<td>SCPC</td>
<td>Service Central de Prevention de la Corruption (Central Service for the prevention of Corruption)</td>
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<tr>
<td>SOCTA</td>
<td>Serious and Organised Crime Threat Assessment</td>
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<tr>
<td>SIENA</td>
<td>Secure Information Exchange Network Application</td>
</tr>
<tr>
<td>TI</td>
<td>Transparency International</td>
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<tr>
<td>WEF</td>
<td>World Economic Forum</td>
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<td>WGI</td>
<td>World Governance Indicators</td>
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<td>WDI</td>
<td>World Bank Development Indicator</td>
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<tr>
<td>UCM</td>
<td>Unobserved Component Model</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNCAC</td>
<td>United Nations Convention Against Corruption</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
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<tr>
<td>VAT</td>
<td>Value-added tax</td>
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<tr>
<td>2SLS</td>
<td>two-stage least squares</td>
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Executive summary

Corruption imposes significant social, political and economic costs on European Member States and citizens. Corruption – defined broadly as ‘abuse of power for private gain’ – can take many forms, including paying bribes or exercising power so as to give privileged access to public services, goods or contracts. Corruption has been shown to undermine rule of law, lead to the inefficient delivery of public services and corrode the institutions and foundations of democracy. Corruption has a measurable impact on productivity and economic prosperity.

This report looks at the ‘cost of non-Europe’ in relation to corruption. Cost of non-Europe reports are intended to study opportunities for gains, or the realisation of a public good, through common action at the EU level, by attempting to identify areas that might have large expected benefits as a result of deeper EU integration or coordination. The objectives of the study are to:

1. Quantify the economic, social and political costs of corruption in the European Union.
2. Investigate gaps and barriers in the existing regulatory framework that hinder the effectiveness of measures to combat corruption in the EU.
3. Identify potential for action at EU level that might add value and address the challenges identified.

This paper focuses on measures for combatting corruption that have been or could be taken in the field of justice and home affairs, and further focuses on legislative, regulatory and monitoring measures (rather than ‘soft measures’ such as awareness raising and sharing good practices between Member States). It looks at the fight against corruption at Member State level as well as within EU institutions and in relation to EU funds. Lastly, it includes a ‘case study’ focus on the fight against corruption in public procurement.

The data collection methods used to produce this paper consisted of a review of relevant documents and literature and interviews with 17 stakeholders (including academic experts in the area of corruption and representatives of EU institutions and agencies). Additionally, a bespoke data set was compiled from a range of different sources and using a number of existing corruption indicators, in order to generate new estimates of the costs of corruption and the costs of non-Europe using econometric modelling.
1. Quantifying the economic, social and political costs of corruption in the European Union

Measuring levels of corruption is very challenging. A number of different existing approaches have been used, including surveys asking about citizens’ perceptions of the levels of corruption; surveys asking about actual experiences of corruption; and estimates based on economic data. Each of these approaches has limitations so that no single indicator provides a comprehensive picture of the problem. An overview of existing measures of corruption is provided in Chapter 2.

This study provides a new estimate of the cost of corruption to the EU as a whole, based on a review of existing literature and econometric modelling. A number of previous estimates of the costs of corruption have been calculated (see Table A2, Appendix A). These vary considerably, depending on the data and assumptions on which they are based.

Our findings, based on new analysis, suggest that corruption costs the EU between €179bn and €990bn in GDP terms on an annual basis. These figures are higher than the estimate of €120bn included in the 2014 EU Anticorruption Report (EC 2014h). The difference is because the estimate in the EU ACR does not account for the indirect effects of corruption (it looks at costs in terms of lost tax revenues and foreign investment due to corruption). Our estimate takes a broader range of effects of corruption into account.

Based on new econometric modelling for this paper we find that corruption in the EU has significant social costs and political costs. It is associated with more unequal societies, higher levels of organised crime, weaker rule of law, reduced voter turnout in national parliamentary elections and lower trust in EU institutions. This finding is in line with previous research that finds similar relationships between corruption and social and political cost variables.

Our empirical analysis suggests the cost of corruption risk in EU public procurement is around €5bn per year (across all sectors). However, the costs of corruption in public procurement vary considerably between Member States. This estimate is slightly higher than the estimate provided by a previous, large study. This could be because our estimate includes all sectors of public procurement and all Member States, whereas the previous estimate included eight Member States and five sectors.

Key limitations to the new estimates produced are outlined throughout Chapter 2.

---

2 We calculate three estimates of the costs of corruption in the EU. Each estimate is based on a different set of assumptions about the extent to which it is feasible for Member States to reduce corruption in the short, medium and long-term (we refer to these as three ‘scenarios’).

3 PWC and Ecorys 2013.
2. Gaps and barriers in the existing regulatory framework that hinder anti-corruption efforts in the European Union

Anti-corruption policy is primarily a Member State competency – the EU does not have explicit competence in the area of corruption. However, the establishment of the area of freedom, security and justice is envisaged in the Treaty of Amsterdam (TEU), which included the fight against corruption as one of its components. Whereas corruption is an area reserved for Member States, the fight against corruption was one of the foci of the Stockholm Programme (Council of the EU 2009b) and is explicitly mentioned in a recent Commission communication, which sets its future agenda in the area of Home Affairs (COM(2014)154).

A range of measures - including EU and international law and monitoring mechanisms – are in place to reduce, prevent and detect corruption in the EU. These are listed in Table 1 and explained in more detail in Chapter 3, Section I.

This research paper includes an assessment of the effectiveness of these measures. This assessment was undertaken based on a documentary and evidence review and interviews with stakeholders. Effectiveness is defined in terms of the ability of the measures to reduce the level of corruption (or the perception thereof) or to reduce the opportunity for corruption. Measuring the effectiveness of these measures is very challenging, given the obstacles to measuring the levels of corruption and any changes over time. While there are some evaluations of anti-corruption measures, these have not been conducted in an EU context and their findings do not provide definitive evidence of ‘what works’ to address corruption.

Table 1 summarises the key elements found to be effective (enablers) and in need of improvement (barriers) in relation to each of the key current anti-corruption measures identified in this paper. These are explained in more detail in Chapter 3, Section II.

Table 1: Summary of EU and international law and monitoring mechanisms and key enablers and barriers

<table>
<thead>
<tr>
<th>Type of measure</th>
<th>Enablers</th>
<th>Barriers</th>
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<tbody>
<tr>
<td>EU legislation</td>
<td></td>
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</table>
| e.g. Conventions on the protection of the EU’s financial interests; Directives on Public Procurement | - Some legislation has been transposed by Member State | - Lack of transposition of some instruments  
- Lack implementation / enforcement by Member State  
- Some gaps in legislation: no common protection for whistleblowers; no common definition of public official |
| EU Institutions |         |         |
| e.g. European Anti-Fraud Office; European Parliament; European Commission | - Increasingly exercise oversight in an active manner  
- Provide a good basis for addressing corruption | - Rely on Member State to initiate prosecutions regarding the use of EU funds |
Annex II: Corruption

<table>
<thead>
<tr>
<th>Type of measure</th>
<th>Enablers</th>
<th>Barriers</th>
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</table>
| EU monitoring mechanisms - ACR; Cooperation and Verification Mechanism (for Bulgaria and Romania - CVM); Justice Scoreboard | - ACR raised profile of the fight against corruption, produces tailored country reports using range of indicators, includes experience-sharing programme  
- CVM is an important lever to encourage reform and build capacity, integrated into wider reforms, supported by domestic authorities | - ACR does not cover EU institutions, does not generate new data, has no formal assessment procedure  
- CVM: Mixed evidence of leading to change, costly to implement, no strong sanctions |
| Council Of Europe monitoring - the Group of States against Corruption (GRECO)    | - Employs a systematic approach and makes good use of ‘soft’ enforcement mechanisms                                                                                                                   | - GRECO does not cover EU institutions                                                                                                                                                           |

### 3. Potential policy options within the remit of the LIBE Committee that might add value and address the challenges identified

Through interviews and a review of previous research and relevant documentation, eight potential areas for EU action are identified that might address the barriers to the effectiveness of current measures (summarised in Table 1). These are listed in Box 1, along with the possible limitations or challenges involved in putting these potential measures into practice.

The selection of these eight possible actions reflects the remit of this paper, which focuses on (i) measures that can be taken at the EU level and (ii) ‘hard’ measures such as changes to legislation and policy. However, interviewees suggested that, due to limited EU competencies in the area and the need to work with Member States, some of the most actionable and feasible policy options may revolve around ‘soft’ measures (capacity building, encouragement of political will etc.). Some of these suggested soft measures are listed in Chapter 3, Section III.
Box 1: Summary of potential areas for action at EU level in the field of anti-corruption that might add value and address the challenges of current measures

1. **Make use of infringement proceedings against Member States who have not implemented EU law in relation to the fight against corruption.**

   **Possible challenges/limitations:**
   - The number of legislative measures that could serve as the basis for infringement proceedings is limited.
   - Might not be as effective as voluntary approaches which are based on encouraging rather than enforcing compliance.

2. **Support new legislation to harmonise protection for whistleblowing within Member States and/or provide protections to whistleblowers within European institutions.**

   **Possible challenges/limitations:**
   - Lack of a clear legal basis for harmonising Member State legislation (however, the EU has the competence to act with respect to whistleblowing within EU institutions).

3. **Support new legislation to provide a common definition of a public official.**

   **Possible challenges/limitations:**
   - Effectiveness would depend on implementation by Member States.
   - Proposals for a directive on criminal law protection from fraud and related offences to the EU financial interests (COM(2012) 363) include a definition of a public official. If this is adopted separate legislation might not be needed.

4. **Establishment of a European Public Prosecutors’ Office (EPPO) to address some of the limitations of OLAF (this has already been proposed and is under discussion).**

   **Possible challenges/limitations:**
   - There are ongoing negotiations regarding the powers and competencies of the EPPO to operate somewhat independently of Member States. The outcome of these will determine whether the EPPO addresses the challenges currently faced by OLAF.

5. **Make improvements to address limitations of the ACR.**

   **Possible challenges/limitations:**
   - Inclusion of the EU in the ACR would not result in an independent, external review of the EU (because the ACR is produced by the Commission).
   - Increasing the amount of the data included in the ACR or number of outputs per year would require additional time and resources.
   - Replacing the ACR with a broader monitoring framework might not be supported by Member States.

6. **Extend aspects of the Cooperation and Verification Mechanism to other Member States.**

   **Possible challenges/limitations:**
   - There are questions about whether this would be politically feasible.
   - The CVM is designed to be tailored to the needs of the two countries to which it currently applies (Bulgaria and Romania) and cannot simply be ‘applied’ to other Member States.

7. **Make improvements to address limitations of the EU Justice Scoreboard.**

   **Possible challenges/limitations:**
   - A lack of good, comparable data would hinder attempts to expand the Scoreboard to new areas.

8. **Take steps for the EU to accede to GRECO to improve the monitoring of EU institutions.**

   **Possible challenges/limitations:**
   - Currently some discussion about the ability of the EU, legally, to accede to GRECO.

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4 Although it may be possible to rely on the broader role of the European Commission as the guardian of the EU Treaties. See further discussion in Chapter 1, Section 1 (5)
4. The costs of non-Europe in corruption

Of the eight potential areas for action at the EU level set out in Box 1, we are able to provide an estimate of the potential gains from two of them:

- Establishment of a European Public Prosecutors’ Office (EPPO) to address some of the limitations of OLAF.
- Extend aspects of the Cooperation and Verification Mechanism to other Member States.

Unfortunately, it was not possible to undertake quantification of the other potential areas for action because empirical data about the possible impacts on levels of corruption were not available.

Additionally, we calculate the potential gains from the adoption of an EU-wide full e-procurement system. Therefore, this research paper provides estimates of the costs of non-Europe in relation to three policy actions. The aim is to estimate what fraction of the overall costs of corruption could be recovered with additional action at the EU level.

The estimates of the cost of non-Europe in corruption must be treated cautiously. They are each based on a set of assumptions that are carefully outlined in Chapter 4 and as such, should be seen as being indicative of the kinds of gains that might be made. The estimates look at the potential gains of EU-level action in these three areas, but we do not look at the costs of implementation of operation of these policies. With these limitations in mind:

- We predict that a CVM-like mechanism applied to more Member States, in addition to Bulgaria and Romania, could reduce the costs of corruption in GDP terms by around € 70bn annually (or around eight per cent of the overall costs).
- The establishment of an EPPO could reduce the costs of corruption related to EU funds by around € 0.2bn annually.
- The implementation of a full EU-wide e-procurement system could reduce the costs of corruption risk in public procurement by around € 920m each year.
Acknowledgements

The authors wish to thank a number of people for their suggestions and comments on earlier versions of this document. First of all, we are grateful to Mr Wouter van Ballegooij and Thomas Zandstra from the Parliamentary Research Service of the European Parliament for their guidance and suggestions.

In addition, we express our gratitude to all interviewees who kindly agreed to participate in this study and donated their time and insights.

We are also grateful to a number of experts who reviewed and commented on the modelling approach in this study. They include Mihaly Fazekas (University of Cambridge) and Alex Armand (University of Navarra).

We thank Sonja Thebes and Matteo Barberi for excellent research assistance. Finally, we would like to thank Christian Van Stolk (Rand Europe) and Alex Armand, who peer reviewed this document as part of RAND's quality assurance process and provided useful comments and feedback on its earlier versions.
CHAPTER 1 INTRODUCTION

1. A study on the potential gains through common action at European level in the area of corruption

1.1. Why should we care about corruption?

Corruption is a phenomenon that can and does inflict serious economic, social and political harms to societies around the world (OECD 2012). The World Bank refers to corruption as one of ‘the greatest obstacles to economic and social development. It undermines development by distorting the rule of law and weakening the institutional foundation on which economic growth depends’ (World Bank 2009a).

While quantifying the aggregated costs of corruption is not straightforward, a widely cited estimate by the World Bank calculates that over $1 trillion are paid in bribes in developing and developed economies each year, which corresponds to about three per cent of world Gross Domestic Product (GDP) in 2001/2002. Another estimate by the World Economic Forum (WEF) estimates the cost of corruption to be more than five per cent of global GDP (US $2.6 trillion) (OECD 2014b).

Besides economic costs, corruption represents a substantial threat as a tool of organised crime and terrorist groups, often utilised to gain influence and maintain their operations. The 2013 Serious and Organised Crime Threat Assessment (SOCTA), states that organised crime groups use corruptive behaviour as a means to infiltrate both public and private sectors (Europol 2013). The 2014 EU Anticorruption Report (ACR) states that links between criminal groups, political representatives and businesses are a concern particularly at the local and regional levels (EC 2014h).

1.2. What are the levels of corruption in European Union Member States?

Corruption affects all countries in the world, although its effects are most pronounced in developing countries (UNODC 2004). Measuring levels of corruption is very challenging, but there are some indicators available. Results from a 2013 special module of the Eurobarometer survey provide evidence of the extent to which corruption is a perceived problem in Europe. In that survey (EC 2014f):

- Over three quarters of respondents from EU Member States felt that corruption was widespread in their country.
- Approximately a quarter of respondents viewed themselves as being personally affected (although less than ten per cent reported having experienced or witnessed corruption personally over the past year) (EC 2014f).
- Over half of the respondents believed that corruption in their country has been constantly increasing in their country. Just five per cent felt it had been decreasing.
The Eurobarometer results show that these perceptions vary considerably across Member States. For instance, respondents in countries such as Denmark, Finland or Sweden held relatively positive (i.e. below EU average) views with respect to the pervasiveness of corruption. By contrast, respondents in new Member States such as Bulgaria, Croatia, the Czech Republic and Romania expressed much more negative views.\(^5\) This variation is broadly in line with findings from other cross-national studies on perceptions of corruption, such as work done by Transparency International (Transparency International 2012). While there are limitations on using perceptions as proxies for actual levels of corruption, the link between perceived levels of corruption and decreasing levels of political trust in institutions means that changing citizens’ views is an important concern for policy makers.\(^6\)

### 1.3. What does corruption cost the European Union economy?

Table A-2 (in Appendix A) summarises the key existing estimates of the costs of corruption. The 2014 EU ACR estimates costs to the European Union (EU) economy of about €120bn a year in lost tax revenues and foreign investment due to corruption. This EU figure is based on estimates by specialised institutions and bodies, including the International Chamber of Commerce (ICC), Transparency International (TI), United Nations Global Compact, the World Economic Forum and Clean Business is Good Business. A recent study by Mungiu-Pippidi (2013) applied a different approach to calculating the costs of corruption\(^7\) and concluded that the estimate of €120bn in the ACR underestimates the costs of corruption and that the costs are probably more in the range of €323bn – three times the ACR estimate.

The existing estimates of the costs of corruption each measure slightly different things. For example, the estimate from the World Bank does not include the embezzlement of public funds or theft of public assets (which are difficult to measure).\(^8\) The World Bank also acknowledges that its $1 trillion estimate of the costs of corruption, ‘does not account for the significant losses in investment, private sector development, and economic growth to a country, or to the increases in infant mortality, poverty and inequality, all resulting from corruption and misgovernance’ (World Bank n.d.-b). A similar critique applies to the estimate in the ACR, which includes lost tax revenue and investments only, not counting further indirect cost components.

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\(^5\) 99 per cent of respondents in Greece, 97 per cent in Italy and 95 per cent in Lithuania, Spain and the Czech Republic felt that corruption was widespread in their country.

\(^6\) Note that the direction of causality is not a priori clear. It could just be that one is more likely to believe there is a lot of corruption if one has lost trust in political institutions. We pick up in detail the issue of reverse causality in Chapter 2. See also a discussion of interpretative limitations pertaining to data on corruption offered in the section on caveats and limitations later in this chapter.

\(^7\) This study used Denmark, ranked as the least corrupt country in the EU, as a reference point to estimate the total losses incurred by EU Member States.

\(^8\) These types of costs represent financial flows between individuals or from the state to a corrupt public/elected official. They affect income and wealth distribution, but not necessarily economic output.
The actual costs of corruption are probably higher once indirect effects are taken into account (OECD 2013b). These indirect effects include changes in the behaviour and incentives of individuals and firms in light of widespread corruption, which can lead to lower productivity of labour, physical and human capital. The detrimental effects of corruption on the efficiency of resource allocation within an economy can operate through various channels (OECD 2013b):

- Corruption weakens market mechanisms. For instance, if investment is subject to government regulation, then corruption acts as a tax on investments, if businesses need to pay a bribe in order to get their requests granted. This makes investment activities more costly for firms, lowering profitability and hence lowering the overall level of investment.
- Corruption has a detrimental effect on competition. This arises in the form of weaker regulation and antitrust enforcement, as well as deterring new firm entries into markets and making entrepreneurship less attractive. This matters as competition is considered as an important driver of efficiency and innovation in modern economies (i.e. Aghion et al. 2002).
- Corruption might affect economic performance by directing the composition and volume of government expenditures. For instance, the design of the tax system and its implementation may enable public officials and taxpayers to engage in corruption activities and therefore lower overall tax revenues.

In summary, when estimating the overall costs of corruption, looking only at specific areas (i.e. tax revenue) where corruption might have a negative effect, will naturally underestimate the full costs.

1.4. What is corruption and how do we define it?

For the purposes of this study the definition in the 2014 EU Anticorruption Report is used as the starting point: ‘abuse of power for private gain’. This definition allows a relatively broad scope to examine several forms of corruption (in public and private sectors and by a range of actors) and the costs of non-Europe in relation to these. 9

However, awareness of other definitions (and disagreements about definition) is a useful grounding for understanding the nature of the phenomena of corruption to be addressed by European and national policy makers.10 The following points summarise the key areas of contention in relation to defining corruption:

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9 This is the definition used by the Global Programme against Corruption, run by the United Nations (EC 2014h). The other advantage of using this definition is to assist comparability with other EU studies.

10 As van Stolk and Tesliuc (2010) point out, an important consideration is distinguishing corruption from fraud and error. In their conceptualisation, fraud is understood as intentional misleading action to gain a benefit while corruption refers to intentional action by staff or office holders. The difference between fraud and corruption on one side and error on the other is the presence or absence of intention. Both corruption and error are likely to be more prevalent in countries with relatively lower levels of institutional capacity.
A focus on public and private actors? A broad working definition was adopted by the first UN Anti-Corruption Toolkit (2001), which specified that 'corruption is an abuse of (public) power for private gain that hampers the public interest' (UNODC 2001). This definition has been criticised for placing too much emphasis on public office and not enough on the role of private organisations. It has been suggested that a broader definition is more appropriate in order to encourage private corporations to share responsibility for tackling corruption (Kaufmann 2005) (but see below for discussion of the definition of corruption included in a proposed Directive on Fraud).

A focus on illegal activity? Some definitions attempt to narrow the scope of corruption to specify that it entails 'the illegal use of power for personal gain' (underline added) (Zimring and Johnson 2005). This restricts corruption to acts that are legally defined as criminal or civil offences. A legal standard (as opposed to broader standards such as social harm) has the advantage that it is easier to assess empirically and allows comparability to other related offences (such as fraud). However, criminal law definitions of corruption focus on specific types of conduct, which may be 'too narrow and creates gaps which can be problematic for non-legal purposes' (UNODC 2003), particularly in relation to unethical behaviour that may not be illegal.

A focus on specified forms of corruption? The Organisation for Economic Co-operation and Development (OECD), the Council of Europe and the UN Conventions do not provide an overarching definition of corruption and instead define specific manifestations of the problem. For example, Europol identifies conflicts of interest, collusion and nepotism as possible forms of corruption and the Council of Europe’s Civil Law Convention on Corruption (1999) includes this specific definition of corruption: ‘Requesting, offering, giving or accepting, directly or indirectly, a bribe or any other undue advantage or prospect thereof, which distorts the proper performance of any duty or behaviour required of the recipient of the bribe, the undue advantage or the prospect thereof’ (CoE 1999).11

A wider framing of ‘particularism’? An approach to understanding and defining corruption which provides useful framing for this study is the concept of ‘particularism’. This distinguishes ‘individual cases of infringements’ of norms of integrity from particularism which is ‘a mode of social organisation characterised by the regular distribution of public goods on a no universalistic basis that mirrors the vicious distribution of power within such societies’ (Mungiu-Pippidi 2006). Proponents of this definition argue that it is useful for focusing the attention of policy makers on the root causes of corruption (which can be left untouched by anti-corruption initiatives that are focused on criminal law interventions), and draws attention to the stage of development of a particular state or society. Corruption in developing and post-communist countries is more likely (it is argued) to constitute particularism.

11 In respect of this definition it has been commented that a ‘bribe or any other undue advantage or prospect’ is broad in scope and may entail a range of activities that might vary across legal, cultural and geographical contexts and may include bribery of public officials, trading in influence, embezzlement, misappropriation or other diversion of property by a public official and obstruction of justice. (See OECD 1997).
How is corruption different to fraud? Fraud and corruption are related but slightly different concepts. Generally, fraud involves a misrepresentation, whereas corruption is about collusion for gain. The Proposal for a ‘Directive on the fight against fraud to the Union's financial interests by means of criminal law’ lists corruption among ‘fraud-related forms of illegal behaviour’ and states that ‘corruption constitutes a particularly serious threat against the Union's financial interests, which can in many cases also be linked to fraudulent conduct’ (EC 2012c).

Key elements of the proposed Directive’s definition of corruption are the participation of a public official and the gaining of advantage. The definition includes passive and active corruption.

The definition of Fraud in the proposed Directive does not require the involvement of a public official (this is in line with distinctions made elsewhere in available literature, e.g. Van Stolk and Tesliuc 2010), and focuses on making false, incorrect or incomplete statements in order to misappropriate funds.

1.5. What are the EU competencies, objectives and actions in the area of corruption?

As further described in Section II of this chapter, this report looks at the potential gains through common action at European level in the area of corruption. An important basis for this is to understand the competence of the EU in relation to corruption.

1.5.1. Competence stems from establishment of an area of freedom, security and justice

The competence of the EU in the fight against corruption at the Member State level is primarily based on the establishment of the area of freedom, security and justice, as envisaged in the Treaty of Amsterdam (TEU), which included fight against corruption as

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12 Per the directive’s Article 4: ‘Member States shall take the necessary measures to ensure that the following conduct, when committed intentionally, is punishable as a criminal offence: (a) the action of a public official, who, directly or through an intermediary, requests or receives advantages of any kind whatsoever, for himself or for a third party, or accepts a promise of such an advantage, to act or refrain from acting in accordance with his duty or in the exercise of his functions in a way which damages or is likely to damage the Union's financial interests (passive corruption); (b) the action of whosoever promises or gives, directly or through an intermediary, an advantage of any kind whatsoever to a public official for himself or for a third party for him to act or refrain from acting in accordance with his duty or in the exercise of his functions in a way which damages or is likely to damage the Union's financial interests (active corruption).’

13 As stated in the proposal’s Article 3: ‘any act or omission relating to: (i) the use or presentation of false, incorrect or incomplete statements or documents, which has as its effect the misappropriation or wrongful retention or the illegal diminution of funds or assets from the Union budget or budgets managed by the Union, or on its behalf; (ii) non-disclosure of information in violation of a specific obligation, with the same effect; (iii) the misapplication of such funds or of a legally obtained benefit for purposes other than those for which they were originally granted.’
one of its components. Relevant TEU provisions give the EU competence to fight corruption primarily through the approximation of Member States’ criminal law and through measures fostering police and judicial cooperation (Eckes and Konstadínides 2011).

The Treaty of Lisbon (TFEU) did not have a substantial impact on the scope of EU competency vis-à-vis tackling corruption. The TFEU provisions pertaining to the area of freedom, security and justice include Articles 82 and 83, which represent the most important component of the EU’s legal basis in the area.

However, as Anagnostou and Psychogiopoulou (2014) point out, the EU ‘does not have explicit competence in the area of corruption.’ Similarly, Eckes and Konstadínides (2011) note that the TFEU ‘does not give the EU any clear competence to initiate common anti-corruption standards amongst the Member States … anti-corruption policy is dominated by Member States’ competencies.’

While this is an area reserved for Member States, the fight against corruption was one of the foci of the Stockholm Programme (Council of the EU 2009b), which guided home affairs priorities in the European Union between 2010 and 2014. It is explicitly mentioned in a recent Commission communication, which sets its future agenda in the area of Home Affairs (EC 2014c). Further, control of corruption is one of the components of Europe 2020, the growth strategy for the European Union covering the current decade (EC 2010), and is one of the priorities for the Dutch Presidency of the Council from the European Union from January to July 2016.

1.5.2. Routes for addressing corruption stemming from other parts of the Treaties

In addition to competencies in the area of freedom, security and justice, the EU can draw on powers in other policy areas, which may be of (indirect) relevance to fight against corruption at Member State level and at EU level:

– For example, the EU’s powers to protect its financial interests in accordance with Article 235 of the TFEU.
– Article 114 of the TFEU (related to harmonisation of rules for the establishment and functioning of the internal market) also provides EU powers relevant to the fight against corruption, providing a legal basis for EU legislation on public procurement.

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14 Article 2 TEU. Article 29 TEU (prevention and fight against corruption) was one of the objectives linked to the establishment of an area of Area of Freedom, Security and Justice (EU 1992).
15 The EU has the potential to establish minimum rules regarding the definition of sanctions and criminal offences in the areas of serious crime with cross-border dimensions, of which one of them is corruption (see Article 83 TFEU) (EU 2007).
16 The letter mentions specifically only ‘organized crime’. See Minister of Foreign Affairs of the Netherlands (2015).
The role of the Commission as the guardian of the EU Treaties, of which particular relevance for the fight against corruption is the rule of law principle laid down in Article 2 of the TEU. Article 7 of the TEU enables the EU to sanction a Member State found in a serious and persistent breach of values expressed in Article 2.\textsuperscript{17} However, this procedure is generally considered a ‘nuclear option’ (Barroso 2012) and has never been invoked.\textsuperscript{18}

1.5.3. Mainstreaming the fight against corruption

Mainstreaming refers to the objective of making the fight against corruption an integral part of EU policies in other related subject areas, so that anti-corruption efforts reflect the multi-faceted character of the challenge. Mainstreaming recognises that ‘anticorruption has to be understood in a broader governance context’ (Mungiu-Pippidi 2013). Examples of policy areas where mainstreaming is particularly applicable include trade negotiations, economic growth policy (e.g. European Semester of Economic Governance), public procurement, general administration, rule of law and others.

2. Objectives and scope of this paper

The European Parliament’s Committee on Civil Liberties, Justice and Home Affairs commenced work on a report on the fight against corruption, representing a follow-up to the CRIM committee resolution (EP 2015d). Against this background, the European Parliament has commissioned a series of ‘Cost of non-Europe’ reports on the topics of corruption and organised crime. Cost of non-Europe reports are intended to study opportunities for gains or the realisation of a public good through common action at the EU level by attempting to identify areas that might have large expected benefits from deeper EU integration or coordination.

The objective of this study is to assess the current state of play regarding the fight against corruption in Europe. To that end, the study seeks to:

1. **Quantify the economic, social and political costs of corruption in the European Union.** The study aims to predict in a transparent manner the costs of corruption in the EU and for all EU Member States, with regard to the overall economic output lost due to corruption, and not only in specific areas related to foregone tax revenues or the aggregate value of bribes paid like previous estimates.

2. **Investigate gaps and barriers in the existing regulatory framework that hinder the effective combat of corruption in the EU.** The study seeks to investigate how effective are different options for combatting corruption at EU level.

\textsuperscript{17} The Nice Treaty subsequently amended Article 7 to allow for preventive sanctions as well.

\textsuperscript{18} As the Commission pointed out, the Council of Europe’s Statute includes a similar provision whereby a Member State found in violation of human rights and rule of law principles may have its representation suspended and may be expelled. However, like Article 7 of the TEU, this has never been used (EC 2014a).
3. **Identify potential for action at EU level that might add value and address the challenges identified.** The study looks at what fraction of the overall cost of corruption could be reduced by common policy action at the level of the EU.

While corruption covers many different areas relevant to the European policy and legislative framework, the scope of this research paper is as follows:

- **Focuses on measures that have been or can be taken in the field of justice and home affairs** (in relation to objectives two and three). This reflects the fact that this paper is prepared to support the work of the LIBE committee. This means that measures related to (for example) anti-competition, asset recovery and taxation, while recognised as important possible levers, are not discussed in this paper. Similarly, while the importance and desirability of mainstreaming the fight against corruption in other policy areas is recognised, these efforts remain outside the scope of this paper. This includes measures related to the regulation of EU funds, which are also not within the scope of this paper (although it is acknowledged that financial support and the EU’s ability to control and set conditions for its disbursement represents an enabler and a source of leverage for anti-corruption measures).

- **Focuses on possible legislative or regulatory measures** (in relation to research question three), rather than ‘soft’ measures such as capacity building, awareness raising and training in order to enhance the fight against corruption.

- **Includes the fight against corruption at Member State level and within EU institutions and in relation to EU funds.**

- **Includes a ‘case study’ focus on the fight against corruption in public procurement. It was chosen to investigate** public procurement in more detail due to its significance for the EU economy as a whole and its relative high exposure to corruption risk.

### 3. Research approach and limitations

The research activities undertaken to produce this research paper are summarised in Table 2.

<table>
<thead>
<tr>
<th>Research Tasks</th>
<th>Research methodology</th>
</tr>
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</table>
| 1. Mapping current state of play and existing research and information |  - Document and literature review  
  - Interviews with 17 key stakeholders  

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19 Interviewees (17 in total) included academic experts and independent researchers in the area of corruption and representatives of the following organisations: EC DG HOME, EC DG JUST, EC DG EMPL, EC SG, Europol, Eurojust, EESC, Transparency International, Council of Europe, and OECD.
### Annex II: Corruption

#### Research Tasks

<table>
<thead>
<tr>
<th>Research Tasks</th>
<th>Research methodology</th>
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| 2 Quantitative analysis – economic, social and political costs of corruption | - Identification and review of relevant data sets  
- Build bespoke data set for analysis  
- Econometric modelling |
| 3 Assessing effectiveness of existing measures, identification of gaps and barriers, identification of possible areas for action | - Thematic analysis of document and literature review  
- Internal workshop to review outputs from tasks 1 and 2 |
| 4 Synthesis and analysis | - Drawing together findings across all previous research tasks to produce research paper |

Key limitations to the study are as follows:

- Any research into corruption faces challenges in measuring levels of corruption. By nature an illicit activity, corruption is difficult to detect and measure. Official statistics and other measures provide only a partial account of the extent and nature of the phenomena.

- There is very limited evidence on the effectiveness of anti-corruption methods. Most of the research and evaluation into effectiveness has been conducted in low and middle-income countries, which might not be transferable to an EU context. Existing research largely looks at the effectiveness of anti-corruption policy within a country. This might not provide lessons for the effectiveness of EU action, as the EU shares competency in the area of fight against corruption with individual Member States and is heavily reliant on Member States’ action.

- This study was undertaken in a constrained timespan (two months), which determined the extent of the analysis and the number of stakeholders consulted.

Further limitations of the approach to estimating the costs of corruption and the costs of non-Europe are discussed in relevant chapters of the paper.

### 4. Structure of the paper

This research paper is structured as follows:

- Chapter 2 sets out existing estimates of the costs of corruption in the EU as a whole and in relation to public procurement specifically. It sets out new estimates of the economic, social and political costs of corruption in the EU undertaken by the research team and new estimates of the costs of corruption in relation to public procurement.

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20 Although we note there are previous studies. For example: (Hanna et al. 2010; Fjeldstad and Isaksen 2008; Disch, Vigeland and Sundet 2009).
Chapter 3 sets out the current anti-corruption measures relevant to the EU and Member States and an assessment of the effectiveness of these measures. It sets out suggestions – identified from the review of literature and interviews with stakeholders – for measures that might be taken at the EU level to address gaps and barriers in existing EU actions.

Chapter 4 sets out quantitative estimates of the Costs of Non-Europe in the area of corruption.

Chapter 5 provides a report summary and conclusions.

Each chapter of the report commences with a non-technical summary of the research activities, describes the methodologies and highlights the key findings relevant to the chapter.
CHAPTER 2 QUANTIFYING THE COSTS OF CORRUPTION

Summary and key findings

Research activities: This chapter addresses research objective 1 by investigating the economic, social and political costs of corruption at the EU and Member State level and a sub-sector of the EU economy, public procurement. It starts with a summary of the existing academic literature and then describes the different corruption indicators and other data sources used in the course of the analysis. Generally, the study reports estimates for three different corruption indicators. However, only one indicator (the International Country Risk Guide – ICRG - index) is fully comparable over time, so we focus on this indicator when discussing the implications of the findings.

The chapter includes a description of the analytical framework (using statistical/econometric methods) that we used in this paper to assess the costs of corruption within the EU, its Member States and in public procurement.

Methodologies: Based on a review of existing academic literature (the approach taken to identify relevant sources is described in Appendix B) and econometric modelling of the different sorts of harms related to corruption in the EU. The statistical and econometric modelling techniques are described in detail for the interested reader.

Key findings:

- We provide three estimates of the costs of corruption in the EU. Each estimate is based on a different set of assumptions about the size of reductions in the level of corruption that are feasible for Member States in the short, medium and long-term (we refer to these as three scenarios). Our findings suggest that corruption costs the EU between €179bn and €990bn in GDP terms on an annual basis (depending on the corruption measure applied). Unlike some of the existing high-level cost of corruption estimates, these figures include direct and indirect effects of corruption.

- We show that corruption appears to have significant social costs (more unequal societies, higher levels of organised crime and weaker rule of law) and political costs (lower voter turnout in national parliamentary elections and lower trust in EU institutions).

- Our empirical analysis suggests the cost of corruption risk in EU public procurement is around €5bn per year overall, including most sub-sectors of public procurement and contracts of all EU Member States.
1. The economic, social and political costs of corruption at EU level

1.1. Existing academic research into the costs of corruption

1.1.1. Costs in economic terms

Most empirical research studies that estimate the relationship between corruption and economic output examine the impact of some aggregate measure of corruption on the level or growth rate of output (measured usually in GDP terms). The seminal paper by Mauro (1995) was one of the first empirical studies that looked at the relationship between corruption and economic development, finding that more corrupt countries experiencing statistically significantly lower levels of GDP per capita growth and investment rates. Subsequently, a large number of other studies found very similar results (see, for instance, Mo 2001; Pellegrini and Gerlagh 2004). Two recent publications (Campos, Dimova and Saleh 2010; Ugur 2014) meta-analyse the large number of empirical estimates that exist in the empirical literature. The findings of the two meta-studies suggest that a large number of existing estimates indicate a significant and negative impact of corruption on economic growth and output, but the majority of estimates suggest a statistically insignificant relationship (around 60 per cent of estimates). Only a small number of estimates find a positively significant relationship between corruption and economic output.21 In terms of magnitude of the estimates, the study by Ugur finds a negative effect of corruption on growth in the magnitude of -0.193, but this estimate is lower (-0.079) when low-income countries are excluded, suggesting on average a smaller effect for more developed countries.

The question that naturally arises is around the direction of causality between corruption and economic output. Some scholars argue that the causality runs from high corruption levels to low income (Ehlrich and Lui 1999; Lambsdorff 2007), while some argue that a transition from a situation with high levels of corruption to one with low levels of corruption is just a by-product of economic growth (Treisman 2000). One of the mechanisms that have been suggested to underlie the relationship is that quality institutions are expensive and only ‘rich’ countries can afford them. Svensson (2005) gives a summary on this and similar hypotheses and incorporates the view of a variety of authors with a similar view on the reverse causality hypothesis. In a recent study, Grundlach and Paldam (2009) demonstrate that in the long-run, causality might run from low levels of income to high corruption, suggesting that the link between high levels of corruption and low economic output is part of short to medium-term economic dynamics, but with higher income over time the quality of institutions (and hence corruption levels) improve.

In summary, probably both interpretations regarding the direction of causality seem plausible, nevertheless, the meta-studies by Ugur (2014) and Campos et al. (2010) suggest that causality runs from corruption to lower economic output and growth. It also depends on the time horizon over which the impact of corruption is investigated (short-and medium-run vs. the long run).

21 Often referred to as ‘greasing the wheel’ corruption.
1.1.2. Costs in social and political terms

Previous research has not only uncovered the costs of corruption in economic terms, but also its impact on inequality (Gupta, Davoodi and Alonso-Terme 2002; Foellmi and Oechslin 2007), interpersonal trust (Seligson 2006) or citizens’ satisfaction with their governments and their life in general (Tavits 2008). Furthermore, it is well documented in the literature that corruption negatively affects the good functioning of public institutions and diverts public action from its intended purpose. For instance, Herzfeld and Weiss (2003) find a strong negative relationship between corruption and the rule of law. What is more, a number of studies highlight that corruption and organised crime are not an isolated criminal phenomenon, but that these two activities reinforce each other (e.g., Buscaglia 2003; Van Dijk 2007).

In addition to social costs, corruption can also have substantial political costs. A number of studies find that corrupt and inefficient governments negatively affect electoral participation at the national and regional level (e.g. Sundström and Stockemer 2013), by disrupting the legislative process and affecting the principles of legality and legal certainty. Corruption can corrode the institutions and foundations of democracy by producing inefficient delivery of public services, while grafts and bribes erode the fundamental principles of democracy and once taken root is likely to spread among institutions (Stockemer, LaMontagne and Scruggs 2013).

It is noted that corruption therefore affects voter turnout. The existing literature provides two contradictory views on how corruption influences turnout. Firstly, corruption can mobilise citizens, if citizens prefer clean and accountable governments they turn out in higher numbers if they do not find transparency and effectiveness in their current government (Inman and Andrews 2010). Secondly, corruption might repel voter turnout. The mechanism behind that distrust in the political process alienates citizens from the political process. Disappointment experienced due to corruption might push potential voters to withdraw from the democratic process (Kostadinova 2009). Similar to the relationship between corruption and economic output, the direction of causality is a priori not clear. For instance, Charron and Lapuente (2010) and Montinola and Jackman (2002) suggest that there might be a reverse causality as democratic practices might curb corruption (Bäck and Hadenius 2008).

Overall, corruption can undermine citizens’ views and attitudes in political institutions. Anderson and Tverdova (2003) find that citizens in countries with higher levels of corruption report more likely negative assessments of the political system and exhibit lower levels of trust in institutions compared to citizens in countries with lower levels of corruption.

1.2. A brief overview of existing quantitative measures of corruption

Over the last decades, a large number of attempts have been made to measure corruption, resulting in a number of different corruption indicators and measures that are applied in research and policy nowadays. The purpose of this section is not to survey all of these indicators but to discuss the most frequently used and provide a more in-depth discussion about the indicators used in the remainder of this study.

1.2.1. Perception and non-perceptual indicators of corruption

Due to their illegal nature, corruptive transactions within an economy are clandestine and are not recorded systematically. Hence, no official statistical aggregate statistics on the extent of the
The Cost of Non-Europe in the area of Organised Crime and Corruption

problem exist and the measures of the extent of corruption can only rely on proxy indicators. The number of indices focusing on corruption measurement has grown extensively over recent years and different taxonomies have emerged\(^\text{22}\). In essence, these indicators can be classified into two groups:

1. **Perception-based indicators** of corruption, based on surveys or on experts' assessments.
2. **Non-perceptual indicators**, based on surveys or on evidence-based estimation.

Perception-based indicators are indicators based on the opinions and perceptions of corruption in a given country; they can draw from a range of surveys among citizens and firms, or from experts’ assessments. The most known survey-based composite indicators include the *Corruption Perceptions Index* (CPI), the *Bribery Perception Index* (BPI) and *Bribe Payers Index*, published by Transparency International, the *Business Environment and Enterprise Performance Survey* (BEEPS) performed by the European Bank for Reconstruction and Development (EBRD) and the World Bank (WB), and the *Corruption Experience Index* and the *Business International Index*, issued by Business International. Perception measures include as well the indicators of corruption provided by indices of (global) governance, such as the *Corruption Index* produced by the International Country Risk Guide (ICRG), the *Bribe Payers Index* part of the World Governance Indicators (WGI) developed by the World Bank, and the *Global Competitiveness index* from the World Economic Forum (WEF). The most common non-composite indicators reporting the original data are the regional barometer surveys (*Eurobarometer, Asian Barometer, Afrobarometer,* etc.) that present public opinions towards corruption.

The second group of indicators - non-perceptual - aim to measure the actual levels of corruption rather than its perception. Part of these indicators are based on surveys measuring citizens’ or firms’ actual experiences with corruption, such as whether they have been offered, or whether they have given, a bribe. It is the case of the *Global Corruption Barometer* (GCB) developed by Transparency International, where households across the globe report about experiences with bribes in different forms. Specific *Eurobarometer surveys* are also designed to explore the level of corruption experienced by businesses and citizens. Other non-perceptual indicators seek to provide an evidence-based estimation of the level of corruption using economic data; such attempts include, for example, the comparison between existing infrastructure with the total monetary investment in a specific region, and other measures of ‘missing expenditure’. Lastly, there are objective indicators constructed from undisputed facts; typical examples might include the existence of anti-corruption laws or the funding received by the anti-corruption agency.

For our quantitative analysis, we ideally apply indicators with values that cover the 28 EU Member States and a large number of years and not only one or two yearly cross-sections. Such needs restrict our choices and unfortunately do not allow us to make use of the Eurobarometer data. Eurobarometer would have represented a useful tool, since these surveys cover in detail the EU population’s perceptions and awareness of the extent of corruption in the Member States, as well as direct experiences with corruption and views on the fight against corruption.

\(^{22}\) The UNDP guide suggests an informal taxonomy that classifies corruption indicators according to scale, what is being measured, methodology and the role that internal and external stakeholders play; but it also suggests to distinguish based on the various ‘types’ of indicators: perception-based indicators and experience-based indicators, indicators based on a single data source and composite indicators and proxy indicators (UNDP 2008).
However, Eurobarometer surveys on corruption are only available for few years (EC 2014f; EC 2006; EC 2008a; EC 2009; EC 2012b; EC 2014e; EC 2015c). The questionnaires changed considerably over the years and therefore cannot be used for analyses over time.

Our final choice of indicators has converged on three of the most used indicators in the relevant economic literature: (1) the corruption perception index (CPI) by Transparency International; (2) the control of corruption (COC) indicator produced by the Worldwide Governance Indicator (WGI) project by the World Bank; (3) a corruption index produced by the International Country Risk Guide (ICRG).

1.2.2. Comparison of corruption indicators

In this sub-section, we provide, i) a description and comparison of the three indices used in the study, ii) a brief summary of the most common critics, iii) a focus for the EU case and why the perception indicators are better than their reputation.

**Brief description of the three perception corruption indices**

The CPI established by Transparency International is a composite indicator used to measure perceptions of corruption in the public sector. The definition used by TI for corruption is ‘abuse of entrusted power for private gain’, and the CPI focuses on corruption in the public sector, or corruption that involves public officials, civil servants or politicians. It aggregates perception of corruption data from international institutions and non-profit organisations. Starting from 2012 just one year’s data from each data source is included, allowing in this way to compare scores over time.

The COC index is one of the six indicators of the ‘Worldwide Governance Indicators’ (WGI) project developed by the World Bank (WB). The Control of Corruption indicator captures the perceptions of the extent to which elites and private interests exercise public power for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state. The WGI compile and summarise information from over 32 existing data sources that report the views and experiences of citizens, entrepreneurs, and experts in the public, private and NGO sectors from around the world, on the quality of various aspects of governance.

The corruption index produced by the ICRG index is an assessment of corruption within the political system. Financial corruption in the form of demands for special payments and bribes is relevant for the construction of the ICRG indicator, however major weight is given to actual or potential corruption in the form of excessive patronage, nepotism, job reservations, ‘favour-for-favours’, secret party funding and suspiciously close ties between politics and business. The ICRG experts collect political information and financial and economic data, converting these into risk points for each individual risk component on the basis of a consistent pattern of evaluation.

While the CPI and the COC indices are perception-based measures drawn from a range of surveys, the ICRG is drawn from an expert assessment. Although they converge on the general idea of creating better data for better governance by privileging the creation of a composite measure, the indexes present important conceptual and methodological differences. The first important difference concerns the original purposes of the different organisations that elaborate the measures of corruption. The CPI is an ad-hoc measure of corruption aiming to provide data
on extensive perceptions of corruption within countries and raise the public awareness of corruption. Control of Corruption is instead one of the six indicators necessary to assess a measure of governance and to establish more effective instruments of government assistance. Lastly, the ICRG indicator aims to furnish an international clientele (investment firms, universities, multilateral agencies, transnational firms) with ratings affecting political risk, economic risk and financial risk for developed, emerging and frontier markets. The way in which corruption has been defined and conceptualised presents important dissimilarities, as one can notice in the description of the indices above. Differences exist also between the strategies of data collection and the aggregation methods. The 2014 edition of the CPI standardises 12 different data sources to calculate a simple average for each country of all the available rescaled scores. The COC aggregates 32 different surveys and adopts an Unobserved Component Model (UCM) in which corruption is approximated as a linear function of the unobserved corruption in each country and a disturbance term. The ICRG assess political and economic data to assign specific risks points and convert them in a composite indicator.

**Critical assessment of corruption indices**

The three indicators have been widely used by political and business leaders to make decisions and are also widely applied in empirical research about corruption. However, they are subject to a number of limitations.

The first limit of any indicator derives directly from the lack of a shared definition of what counts as corruption; the definitions of corruption are either too vague or too biased (Thomas 2010) and specific indicators will inevitably (even if implicitly) reflect particular definitions (Hawken & Munck 2009). The second source of general critics concerns the risks related to the technique of gathering and aggregating multiple data: corruption indicators might be overly complex (Pollitt 2011), and they run the risk of losing conceptual clarity (UNDP 2008). Further critiques regard the possibility of comparing countries that have different underlying sources of expert, nongovernmental organisation (NGO) and citizen perceptions (Charron 2016); aggregate measure of corruptions and yearly standardisation would then not allow an accurate comparison of countries over time (Andersson and Heywood 2009). Perplexity is also common about the transparency in collecting information (Rohwer 2009; Christiane 2006), especially when missing data creates the necessity of devising alternative ways to collect information.

The second form of limitation relates to using perceptions data to capture corruption across countries. The three proposed indicators measure the perception of corruption and not the actual level of corruption so the relation between perceived and actual corruption is not guaranteed. It is now widely acknowledged that perception of corruption is not correlated to experiences but rather driven largely by outside factors, therefore such indicators are prone to bias and serve as imperfect proxies for actual levels of corruption (Razafindrakoto & Roubaud 2006; Kurtz & Schrank 2007; Melgar, Rossi & Smith 2010; Heywood & Rose 2014). Perceptions would then not measure corruption itself but only opinions about its causes and incidence. Most factors that predict perceived corruption, such as level of economic development, state of democracy, press freedom and so forth, do not correlate well with available measures of actual corruption experiences (Treisman 2007). There is evidence that perceptions do not accurately reflect the actual level of corruption in different regions (Latin America, Mexico, Indonesia, Russia), while the relation is robust in others (United States) (see Charron 2016 for a review of the different regional studies). Heywood and Rose (2014) summarise the issue of perception-
based, arguing that perceptions are not necessarily a good reflection of either experience or reality. Moreover, they showed that there had been virtually no substantive change to two of the main perception-based measures of corruption (CPI and COC) over a period of more than a decade, a finding that seriously undermines their utility as analytic tools.

Our study considers the costs of corruption in the EU and therefore our quantitative analysis will include exclusively the EU Member States. The use of such a relatively homogenous sample might help to overcome part of the critics when using the described indices of corruption. Particularly in the EU Member States, political and economic data are available and reliable, surveys methodology should be consistent over the EU population and issues on obtaining and collecting information are likely reduced to a minimum. Though, naturally, the linked risk that indices are a biased measure of perception remain. A series of Eurobarometer studies of the attitudes of Europeans to corruption (EC 2006; EC 2008a; EC 2009; EC 2012b) showed strong evidence of the disparity between perception and experiences of corruption. The latest study, conducted in September 2011, found that a strikingly high proportion of EU citizens (74 per cent, on average) saw corruption as a ‘major problem’ in their country, occurring within local (76 per cent), regional (75 per cent) and national (79 per cent) institutions. Yet, personal experience of corruption remained strikingly low, with an overall average of just eight per cent of respondents having been asked to pay any form of a bribe for access to services during the preceding 12 months.

**Despite limitations the corruption indicators are still useful in the EU context**

The study by Charron (2016) assesses the relationship between experiences and perceptions of corruption among citizens and experts exclusively in the European countries. The study is the first one to offer a systematic analysis of the empirical strength of corruption perception measures in Europe by using new survey data collected by the author based on 85,000 European respondents in 24 countries. The findings are the following: First, in general, the results show that there is wide variation among countries in Europe with respect to both perceptions and actual experience with corruption. Second, in the sample of European countries analysed, the perceptions of how much one’s public sector is plagued by corruption are highly consistent when comparing samples of those who have, and those who have not, recently experienced public sector corruption. Third, little evidence is found in support of critics’ claims that corruption perceptions are driven by outside noise, at least in the sample European countries and regions. Given the consistency of corruption perceptions between experts and citizens, as well as actual reported citizen experiences, the study offers a much less pessimistic view of existing measures than the prevailing literature. It also offers empirical support for existing measures in Europe due to the high degree of correspondence found between perceptions (both expert and citizen) and experience with corruption, at both the national and regional levels of analysis explored here.

**Summary**

In summary, while corruption perception indicators may be problematic in the context of transition and developing countries, the bottom line is that at least in the European context, they seem to perform much better in measuring ‘actual’ corruption. Furthermore, even though they are to some extent different in their methods of preparation, the correlations among the three indicators, ICRG, COC, and CPI tend to be high. For instance, Svensson (2005) reports a
correlation between the COC Index and the CPI Index of 0.97 and a correlation between the COC Index or the CPI Index and the corruption scores from ICRG of around 0.75. In our sample of EU-28 Member States, we find a similar strong correlation between the three indices. The Pearson correlation coefficient between the COC and the CPI is 0.94, between the COC and the ICRG 0.85 and between the CPI and the ICRG 0.81.

In the remainder of the study, we report cost estimates related to all of the three corruption indices. However, because the ICRG index is the only indicator consistently measured, and therefore comparable, over time, this will be our preferred index. A similar approach has been taken in the empirical literature (i.e. Aidt 2011).

1.3. Empirical Approach: Data and descriptive evidence on the cost of corruption

This section describes the data used in the empirical part of the study and provides first descriptive evidence about a few associations between corruption and different types of costs.

1.3.1. A combination of different data sources

The bedrock of our empirical analysis is a rich data source provided by the Quality of Government institute of the University of Gothenburg, called the ‘Quality of Government’ (QoG) data set (University of Gothenburg, n.d.). The QoG database is a comprehensive ‘one-stop’ collection of a large set of different measures and indicators on quality of government, public economy, private economy, personal economy, education, health, welfare, judicial, political system, conflict, civil society and media, drawn from a variety of different validated sources. In essence, we use the QoG standard data set (time-series version) which has the major advantage that, in most instances, specific variables are available for a large number of countries and over time. Overall, a large number of variables used in the analysis are directly drawn from this comprehensive database. Nevertheless, we supplement the QoG data with information from other sources, including Eurobarometer (i.e. trust in national and EU institutions), data on corruption levels (i.e. ICRG corruption indicator), and measures of organised crime (from the World Economic Forum). Furthermore, to create the growth of genuine wealth per capita (or ‘genuine investment’), as proposed by Aidt (2011), we draw back on data from the World Bank Development Indicator (WDI) database. By using the QoG data as the base and supplementing it with information from different sources, including the corruption index ICRG and data23 on voter turnout across Europe, we create a panel of 28 EU Member States that covers the years 1995 to 2014.24

1.3.2. Levels of corruption across EU-Member States

Table 3 reports the levels of corruption across EU-28 Member States (average corruption levels by indicator for the years 1995 to 2014). Across all three corruption indices, we observe a similar pattern where almost the same set of countries show above EU-28 average levels of corruption over time. These countries include Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Italy, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

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24 Note that CPI and COC are available in the QoG database.
Overall, we do not find strong empirical evidence of movement over time in the corruption rankings across Member States. Member States that had high levels of corruption in 1995 continue to do so in 2014.  

Before we deep-dive into the assessment of the costs of corruption at EU and Member State level, it is useful to provide some preliminary evidence on the relationship between corruption and its costs in economic, social and political terms.

Figures C-1 to C-3 in Appendix C show the relationship between the three corruption indices and (log) GDP per capita, the WGI Rule of Law index and voter turnout in national parliamentary elections (figures are averaged for the period 1995-2004).

Table 3: Average corruption levels across EU-28 (1995-2014)

<table>
<thead>
<tr>
<th>Country</th>
<th>ICRG Index</th>
<th>CPI Index</th>
<th>COC Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>0.375</td>
<td>4.024</td>
<td>0.749</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.469</td>
<td>4.716</td>
<td>1.167</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>0.786</td>
<td>6.892</td>
<td>2.803</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.728</td>
<td>6.698</td>
<td>2.632</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0.49</td>
<td>5.291</td>
<td>1.437</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.698</td>
<td>6.454</td>
<td>2.251</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.234</td>
<td>2.658</td>
<td>0.154</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.6</td>
<td>5.251</td>
<td>1.755</td>
</tr>
<tr>
<td>Finland</td>
<td>0.182</td>
<td>2.715</td>
<td>0.219</td>
</tr>
<tr>
<td>France</td>
<td>0.5</td>
<td>4.73</td>
<td>1.214</td>
</tr>
<tr>
<td>Germany</td>
<td>0.365</td>
<td>4.053</td>
<td>0.741</td>
</tr>
<tr>
<td>Greece</td>
<td>0.719</td>
<td>6.765</td>
<td>2.356</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.615</td>
<td>6.208</td>
<td>2.118</td>
</tr>
<tr>
<td>Italy</td>
<td>0.729</td>
<td>6.595</td>
<td>2.305</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.789</td>
<td>6.601</td>
<td>2.508</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.761</td>
<td>6.125</td>
<td>2.401</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.323</td>
<td>3.597</td>
<td>0.59</td>
</tr>
<tr>
<td>Malta</td>
<td>0.583</td>
<td>5.369</td>
<td>1.701</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.302</td>
<td>3.212</td>
<td>0.449</td>
</tr>
<tr>
<td>Poland</td>
<td>0.688</td>
<td>6.446</td>
<td>2.179</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.495</td>
<td>5.171</td>
<td>1.497</td>
</tr>
<tr>
<td>Republic of Ireland</td>
<td>0.708</td>
<td>4.119</td>
<td>0.997</td>
</tr>
<tr>
<td>Romania</td>
<td>0.75</td>
<td>7.268</td>
<td>2.852</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.708</td>
<td>6.586</td>
<td>2.349</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0.628</td>
<td>5.344</td>
<td>1.662</td>
</tr>
<tr>
<td>Spain</td>
<td>0.495</td>
<td>5.185</td>
<td>1.478</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.276</td>
<td>2.893</td>
<td>0.335</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.438</td>
<td>3.645</td>
<td>0.735</td>
</tr>
<tr>
<td>EU-28 Average</td>
<td><strong>0.551</strong></td>
<td><strong>5.165</strong></td>
<td><strong>1.558</strong></td>
</tr>
</tbody>
</table>

Notes: Entries in the table show the average values of three corruption indices for each Member State over the years 1995-2014. The CPI index is on a scale from 1 to 10; the ICRG index on a scale from 0 to 1 and the COC indicator on a scale from 0 to 5 (originally from 0 to 2.5 but we rescaled it to have only positive values). In bold highlighted are values that are above EU-28 average. For all indicators applies that the higher the higher the level of corruption.

25 For instance, the spearman rank correlation coefficient is not lower than 0.88 if we compare the ranking of countries over time.
Interestingly, we observe a negative relationship between all three corruption indices and the different ‘cost’ measures under consideration. Figure C-1 suggests a negative relationship between corruption and (log) GDP per capita, meaning that from a simple statistical point of view, countries that have higher levels of corruption seem to have lower levels of wealth. Interestingly, the scatterplot reveals that Luxembourg and Italy are ‘outliers’ in a sense that they both are relatively wealthy countries but report relatively high levels of corruption. Figure C-3 highlights that with regard to voter turnout there is relatively more variation (around the linear line in the graph) across Member States compared to, for instance GDP per capita. This is probably partially driven by the fact that some countries have compulsory voting laws (e.g. Belgium and Cyprus) or are small countries (e.g. Malta) where turnout might be naturally higher. We will take this into account in the multivariate regression analysis that follows by adjusting for these country-specific factors.

Furthermore, while these scatterplots depicted in figures C-1 to C-3 provide first evidence of the direction of the relationship between corruption and the outcomes of interest, it is important to note that the further analysis has to take into account other variables that might affect the link between corruption and for instance economic output. Not controlling for factors like trade openness for instance, would result in any predicted parameter estimates of corruption to be biased.

1.4. Empirical methodology: how to identify the relation between corruption and its costs?
This section explains in detail the methodological approach taken to estimate the costs of corruption in economic, political and social terms. In essence, it highlights the econometric specification and describes the empirical strategy to encounter the prevalent reverse causality issue when estimating the relationship between corruption and costs.

1.4.1. Econometric specification
To assess the economic, social, and political costs of corruption at EU and Member State level, we run the following reduced-form regression models:

\[ y_{it} = \alpha + \beta \text{CORRUPT}_{it} + \gamma X_{yit} + \epsilon_{it} \]  

(1)

where \( y_{it} \) is a set of outcome variables of interest for country \( i \) at time \( t \). \( \text{CORRUPT}_{it} \) represents the level of corruption in any given Member State at a given time (based on three different cross-national corruption indices). \( X_{yit} \) represents a vector of country characteristics (i.e. level of human capital, investments or institutional quality), which differs depending on the outcome variable we investigate. Finally, \( \epsilon_{it} \) denotes a random error term. In this setting, if corruption has a negative effect on an outcome variable \( y \), then we would expect \( \beta < 0 \).

In order for the parameter \( \beta \) to be an unbiased estimate of the effect of corruption, econometric theory presumes that the corruption index \( \text{CORRUPT}_{it} \) is not correlated with the error term \( \epsilon_{it} \). However, this is unlikely if we estimate the equation above with empirical data due to the so-called ‘reverse causality problem’ which imposes a potential bias on the parameter \( \beta \). For instance, when we investigate the effect of corruption on economic output, it might be that
corruption affects economic performance, but simultaneously, countries which perform better, might also have more resources to fight corruption (and therefore lower corruption levels). Alternatively, if we look at the relation between corruption and inequality, high levels of corruption might lead to a more unequal distribution of a country’s wealth or income, but corruption might at the same time be fostered by higher inequality (e.g. where public servant’s income is lower than the average income, public servants might be more prone to asks for bribes).

1.4.2. Instrumental variable approach

In order to mitigate the reverse causality problem, we apply an ‘instrumental variable’ approach, which seeks to find variables that are correlated with corruption but not directly with \( y_{it} \) (over its relationship with the error term \( \varepsilon_{it} \), the so called ‘exclusion restriction’). Previous research has used a variety of instrumental variables to establish a link with corruption, some of which have been heavily scrutinised.

For instance, Acemoglu et al. (2000) use colonial settler mortality as an instrument for the quality of institutions to measure their effect on GDP per capita. The idea behind this is that European settlers migrated to colonies with lower mortality rates and implemented institutions close to theirs in the home countries, whereas colonies with higher mortality rates were simply exploited for the benefit of the home country and left without building strong institutions. However, Glaeser et al. (2004) criticise this instrument as Europeans also brought their human capital into the colonies, which is directly related to economic output and therefore settler mortality is more correlated with human capital than with institutions (noting that institutions only have second-order effect on economic performance). Other instruments applied include, for instance, ethnolinguistic fractionalisation under the assumption that there is correlation with corruption but not with economic output (see Mauro 1995). Furthermore, Hall and Jones (1999) use distance from the equator as an instrument for social infrastructure, arguing similarly to Acemoglu et al. (2000) that regions more densely settled by western Europeans were more strongly influenced by western European values and culture. Both instrumental variables, ethnolinguistic fractionalisation and distance from the equator, have been heavily criticised because both are likely directly correlated with economic output and other outputs of interest such as inequality or the rule of law (and therefore is harming the exclusion restriction for being a valid instrument). For instance, ethnolinguistic fractionalisation can affect economic output and voter turnout or inequality directly by creating political instability, or climate (related to distance from equator) has potentially a direct effect on economic output (see studies by Easterly and Levine 1997 for more detail; Bloom et al. 1998). Overall, these instrumental variables are specific to studies that looked at the effect of corruption in the more global context of corruption (with emphasis on developing countries). Therefore, they may not apply well to a specific subset of countries, such as the EU-28 Member States, and for that reason, we use a different set of instruments recently introduced to the literature by Esarey (2015).

In technical terms, the idea behind this instrumental variable approach is to use interaction-based instruments in a setting where for instance two exogenous, non-instrumental variables, \( w \) and \( v \), have a conditional relationship with \( x \), but an unconditional relationship with the outcome \( y \). In this case, the interaction term \( wv \) serves as instrument to identify the effect of \( x \) on \( y \). In essence, the endeavour is to find a variable \( v \) whose relation with \( x \) depends on \( w \), but whose relation with \( y \) does not depend on \( w \). We follow the approach by Esarey (2015) and use, based on prior work (Esarey & Chirillo 2013), the fact that the relationship between women’s
representation in government and corruption is stronger in the presence of institutions that foster electoral accountability for corruption. The instruments applied in this case are freedom of press, presidentialism and ‘personalistic’ against ‘party-centric’ electoral rules (in interaction with women’s representation in government).

The overall logic behind this instrumental variable approach is that inside of democratic countries, certain institutions enhance the mechanism of electoral accountability. Firstly, press freedom, which works by allowing journalists to expose corruption to the voting public. Secondly, presidential systems, in contrast to parliamentary systems, normally do not allow no-confidence votes that can hold governments responsible for scandals related to corruptive activities. Thirdly, personalistic electoral rules, including the degree of political party control over vote lists, give voters more ability to individually target and punish corrupt officials, whereas party-centred rules allow responsibility for corruption to be diffused through the entire party. Individually, these effects might influence any outcome of interest, such as economic output, but there is reason to assume that conditionally on the proportion of women in government the influence of these effects diminishes. In short, we use the following three interaction-based instruments for the level of corruption (in addition to include all four variables separately in each regression model):

1. Proportion women in government*press freedom
2. Proportion women in government*presidentialism
3. Proportion women in government*personalism.

The proportion of women in government is measured by the share of women in the lower house of the parliament. Freedom House measures freedom of press on a scale of 0 to 100, whereas higher values correspond less freedom. This variable is also available in the QoG data. For practical reasons we rescale the variable so that higher values indicate more freedom. Presidentialism is coded as a binary indicator variable, taking the value 1 if the country has a presidential system, and 0 otherwise. The variable stems from the Database of Political Institutions (DPI) by Beck et al. (2001). Personalism is measured by the variable of Johnson and Wallack (1997), which is on an ordinal scale from 1 to 13, where higher levels indicate that electoral rules promote personal vote seeking, in contrast to more party-centred vote seeking. The variable is also included in the QoG data.

Note that we apply ordinary least squares (OLS) and the two-stage least squares (2SLS) method to estimate the parameters of the various models. 2SLS is a computational method used to estimate the parameters from the instrumental variable approach. In essence, in the first stage of the approach, each explanatory variable that is endogenous in the equation of interest is regressed on all of the exogenous variables in the estimation model, including both exogenous covariates in the equation of interest and the excluded instruments. The predicted values from these regressions are then used to replace the endogenous variable (corruption in our analysis) in the second stage. For more details on the approach, see Angrist & Pischke (2008).

26 As measured by the Inter-Parliamentary Union (IPU) and included in the QoG data set.
1.4.3. A set of different outcome and control variables used in the analysis

To assess the economic, social and political costs of corruption we look at a variety of different outcome variables \( (Y_e) \), where for each we utilise slightly different control variables \( (X_{sit}) \) in our econometric specifications outlined in equation (1). Table D-1 D-3 in Appendix D summarise them in more detail for each category of costs we investigate (economic, social or political costs).

Firstly, to predict the economic costs we focus on two outcome variables of interest, (log) GDP per capita and genuine investment. The latter was introduced by Aidt (2010) and is a proxy for sustainable development, which is concerned with improvements in human welfare. Aidt (2011) notes that GDP is a flow variable that records the value of goods and services produced within an economy at market prices in a given year. The problem with GDP as a measure for output is that it can be increased over time by exploiting an economy’s capital stocks in terms of renewable and non-renewable resources or the stock of human capital, without sustainable savings for future generations. Briefly, genuine investment (or genuine wealth per capita) is measured as the gross national savings, adjusted by four factors. These factors include (1) a deduction for the consumption of fixed manufacturing capital; (2) an addition for the value of human capital investments; (3) deductions for the value of carbon dioxide emissions and the level of local environmental degradation; and (4) deduction to take into account depletion of energy, mineral and forest resources. The WDI database includes a measure of ‘adjusted net savings’ which is transformed into a growth variable by multiplying the estimate of genuine investment with a wealth ratio parameter and subtracted by the population growth rate (for more detail see Arrow et al. 2004).

As outlined in Table D-1 in Appendix D, to estimate the relationship between corruption and (log) GDP per capita we control for similar variables as previous empirical work (i.e. Mauro 1995). We include the level of human capital (operationalised as enrolment in secondary schooling and average life expectancy at birth), the government share in total output, trade openness, gross capital formation, value added of the manufacturing and service sector and the income share of the top 20 per cent as a measure of inequality. In addition, we control for the level of democracy by using the polity 2 variable (included in QoG data) and the variables necessary for the instrumental variable approach to work, which include the share of women in lower parliament, freedom of press, presidentialism, and personalism. A similar set of control variables is included in the analysis of the relationship between corruption and genuine investment.

Secondly, to assess the social cost of corruption we focus on a set of different variables (see Table D-2 in Appendix D). To that end, we investigate whether corruption affects inequality, measured by the Gini-coefficient and the income share of the richest 20 per cent in a country (similar to Oechslin and Foellmi 2003). In addition, corruption might undermine the rule of law of a Member State. We measure rule of law with an indicator provided by the Worldwide Governance Indicators (WGI) from the World Bank (and included in QoG data). Originally, the indicator for rule of law lies on the interval between -2.5 and 2.5. For practical reasons we recode the variable to lie between 0 and 1 with higher values representing a better outcome. Furthermore, we investigate whether corruption is related to organised crime. We use an organised crime measure provided by the World Economic Forum (WEF) which asks business leaders to what extent organised crime (i.e. mafia-oriented racketeering, extortion) imposes
costs on businesses? The variable takes the values on the ordinal scale from 1 (to a great extent) to 7 (not at all). We note that this is far from a perfect measure to capture the prevalence of organised crime, but to the best of our knowledge, not many other data sources are available that measure the extent of organised crime. In addition, the downside of the variable is that it is only available from 2006 onwards. For all of the four outcome variables measuring social costs, we employ very similar control variables as in the analysis of the economic costs (as outlined in Table D-1).

Thirdly, to investigate the political costs of corruption we focus on information of voter turnout (proportion of eligible adult citizens that cast a ballot in their country’s legislative elections) and trust in political institutions (see Table D-3 in Appendix D). The Institute for Democracy and Electoral Assistance (IDEA) provides publicly available data containing a global collection of voter turnout statistics for national presidential and parliamentary elections since 1945, as well as European Parliament elections. As not every Member State has specific presidential elections, we only focus on voter turnout at parliamentary and EU Parliament elections. We include in the model for voter turnout specific political institutional factors including compulsory voting laws and the electoral system type. For the latter, we take data from the Electoral System Design database, which includes indicators on a country’s electoral system. There is the notion that voter turnout might be higher in a proportional representation (PR) system (Sundström and Stockemer 2013). We therefore capture the influence of the electoral system on turnout by including two indicator variables, one for PR systems and one for mixed electoral systems, with the remaining category of majoritarian systems serving as a reference category. We also include the proportion of people with age above 65 in the general population, as older people tend to participate more likely in votes and elections.

The Eurobarometer has repeatedly asked European citizens about their trust of different political institutions, including the European Commission, the European Parliament or the European Union, as well as the national governments. By using the Eurobarometer micro-data we create variables that measure the proportion of people that report to trust a particular institution in each Member State.

1.5. The costs of corruption at EU and Member State-level: empirical results

In this section, we report the findings from the various multivariate regression models we ran to estimate the costs of corruption in economic, social and political terms.

27 http://www.idea.int/vt/ (As of 22 February 2016)
28 We created a binary indicator variable taking the value 1 if a country has compulsory voting laws or 0 otherwise. Member States with compulsory voting laws are Belgium, Cyprus, Greece and Luxembourg.
29 At http://www.idea.int/esd (As of 22 February 2016)
30 http://www.gesis.org/eurobarometer-data-service/data-access/ (As of 22 February 2016)
1.5.1. Economic costs

Regression results

Table 4 reports the coefficients from the OLS and 2SLS regression models for the effect of corruption on economic output and growth of genuine wealth per capita. Panel A includes the estimates for economic output (log GDP per capita). We find a statistically significant negative effect between corruption and economic output, independent of the estimation method and corruption indicator used in the model. For instance, using the CPI corruption index, we find that a one-unit increase of the index reduces GDP per capita by about 4.5 per cent (column 2).

Similarly, a one unit increase in the ICRG index reduces GDP per capita by about 25 per cent (column 4) and a one-unit increase in the COC index reduces GDP per capita by about nine per cent (column 6).\footnote{Bear in mind that the coefficients across the three indices cannot be compared directly in terms of their magnitude as they are on different scales.} Panel B includes the estimates for genuine investment. We also find a statistically significant negative effect of genuine investment on corruption (except for the OLS estimate using the ICRG index, column 3). For instance, the coefficient for the CPI index in column 2, reveals that one-unit increase in the index reduces genuine investment by about 0.36 percentage points.

Overall, we note that the 2SLS estimates are somewhat larger in absolute value than the OLS estimates, suggesting that the OLS estimates are biased towards zero, which is consistent with both reverse causality and measurement error. Furthermore, statistically speaking, our interaction-based instruments work reasonably well. All estimates pass the weak instrument test (F-stat > 14) and the p-value of the Hansen J test for over-identification is large as well.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>estimation method:</strong></td>
<td>OLS</td>
<td>2SLS</td>
<td>OLS</td>
<td>2SLS</td>
<td>OLS</td>
<td>2SLS</td>
</tr>
<tr>
<td><strong>Panel A: log GDP per capita</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI index</td>
<td>-0.0411</td>
<td>0.0457</td>
<td>(0.011)***</td>
<td>(0.022)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICRG index</td>
<td>-0.1770</td>
<td>-0.2501</td>
<td>(0.078)**</td>
<td>(0.145)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COC index</td>
<td>-0.1203</td>
<td>-0.0949</td>
<td>(0.025)***</td>
<td>(0.043)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-stage F-stat:</td>
<td>27.011</td>
<td>17.504</td>
<td></td>
<td></td>
<td>27.011</td>
<td></td>
</tr>
<tr>
<td>Over-id test (p-value):</td>
<td>0.6264</td>
<td>0.6419</td>
<td>0.6264</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>133</td>
<td>133</td>
<td>140</td>
<td>140</td>
<td>140</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel B: genuine investment (growth genuine wealth per capita)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI index</td>
<td>-0.1885</td>
<td>-0.3627</td>
</tr>
<tr>
<td>ICRG index</td>
<td>-0.5537</td>
<td>-2.4987</td>
</tr>
</tbody>
</table>
The Cost of Non-Europe in the area of Organised Crime and Corruption

<table>
<thead>
<tr>
<th>estimation method:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COC index</td>
<td>0.3789</td>
<td>0.7646</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.512)</td>
<td>(0.955)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-stage F-stat:</td>
<td>20.66</td>
<td>30.68</td>
<td>26.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over-id test (p-value):</td>
<td>0.2704</td>
<td>0.1771</td>
<td>0.3145</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.145)**</td>
<td>(0.273)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N:</td>
<td>133</td>
<td>133</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
</tbody>
</table>

Notes: panel-robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.010. For the purpose of the analysis, the sample of 28 Member State has been divided into four cross-sections: 1995-1998; 1999-2002; 2003-2006; 2007-2010; 2011-2014. All outcome and control variable have been averaged over these sub-periods. OLS = Ordinary Least Squares; 2SLS = Two-Stage Least Squares IV estimation. All 2SLS estimations have a first-stage F-statistic >=14. Each model includes time fixed-effects and region fixed-effects (south, east, north; west serves as reference category).

Predicting the economic costs of corruption in GDP terms

In a next step, we follow a similar approach as Dreher and Hertzfeld (2005) and employ the estimates included in table 4 to calculate the costs of corruption on the economies of the 28 Member States and the EU as a whole. To that end, we use different scenarios:

1. **Scenario 1 (‘The magnificent seven’)**: Under this scenario, we benchmark to the average level of corruption of the seven best performing Member States. Contrary to the approach taken in Dreher and Hertzfeld (2005) and Mungiu-Pippidi (2013) who benchmark to the single best performing country, we use a set of different countries. To give an example, we calculate how much Poland would lose relatively in economic terms by not reaching the corruption level of the seven best performing Member States. The baseline message behind the scenario is that some countries do better than others, so at a minimum, how the best performing countries perform is the least that could be achieved. By benchmarking to a set of countries, rather than an individual Member State, we circumvent the fact that, depending on the corruption index, different countries are among the best performers depending on the index under consideration. By choosing a larger group as benchmark we ensure that a group of countries is chosen which perform best across different measures of corruption.

2. **Scenario 2 (‘Catch me if you can’)**: Under this scenario, we benchmark to the average level of corruption of the EU-28. Member States above the average corruption level will converge to the average, whereas Member States below the average do not alter their levels of corruption. The idea behind this benchmark is that the countries with high levels of corruption, such as Italy, Bulgaria, Romania or Greece, converge to the average of all Member States. Hence, this scenario is far less ambitious than assuming that the least performing countries could perform as good as the seven best performing countries as under Scenario 1.

3. **Scenario 3 (‘Goodfellas’)**: Under this scenario, we take a data-driven approach to create different benchmarks for groups of countries with larger similarities. To that end, we group Member States into four different groups using a multivariate statistical
approach called cluster analysis. The idea behind this is to group countries together with similar institutional characteristics and levels of corruption. The working assumption in this scenario is that Member States with higher levels of corruption converge to the level of corruption of the best performing within their peer group. The groups of countries resulting from this approach are highlighted in Table 5.

**Table 5: Group of countries for Scenario 3 (‘Goodfellas’)***

<table>
<thead>
<tr>
<th>Group</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UK, Germany, Austria, Luxembourg, Ireland</td>
</tr>
<tr>
<td>2</td>
<td>Netherlands, Sweden, Denmark, Finland</td>
</tr>
<tr>
<td>3</td>
<td>Slovenia, Malta, Estonia, France, Belgium, Cyprus, Spain, Portugal</td>
</tr>
<tr>
<td>4</td>
<td>Poland, Hungary, Bulgaria, Greece, Croatia, Latvia, Slovakia, Romania, Italy, Lithuania, Czech Republic</td>
</tr>
</tbody>
</table>

Within these groups of countries the best performing country serves as benchmark, so for instance in group 4, if Poland is the best performing country according to a corruption index, then all the other countries will converge to that level, but not beyond. The advantage of this scenario is that we compare countries, which have similar institutional settings, whereas the downside is that it is also less ambitious in its setup than Scenario 1.

Overall, we see Scenario 1 as our preferred option to benchmark EU Member States in terms of their foregone economic output in GDP values due to relative high levels of corruption. In the medium to long-term it probably reflects best what can and should be achieved in terms of reducing corruption levels within the EU. Nevertheless, in what follows we will also report the predicted costs of corruption for Scenario 2 and Scenario 3. In essence, in all three scenarios we calculate the (opportunity) costs of being relatively more corrupt than the sample of benchmark countries. Note that all three scenarios serve the purpose of a thought experiment, and especially Scenario 1, might be over-optimistic or unrealistic in their setup, at least in the very short-term. However, they serve as an illustration of what could be achieved under different settings.

We use the 2SLS estimates from Table 4 and report the lost output based on all three corruption indices in Table 6 (Scenario 1), Table 7 (Scenario 2) and Table 8 (Scenario 3). Our findings predict that the costs of corruption in the EU are substantial. For instance, under Scenario 1, the overall cost of corruption in terms of lost GDP to the EU economy is between $908bn (€817bn)

---

32 Cluster analysis is an exploratory statistical technique that finds groups of similar observations in complex data sets. In our application it groups countries by similarities in levels of corruption, the rule of law and organised crime. The approach consists of two stages: 1) the calculation of a distance matrix describing differences between variables of interest; 2) creation of clusters based on countries with ‘low’ distance to each other. There exist different metrics for distance, we use the Euclidean.

33 Of which some might hinder these countries to unlock their potential for reducing corruption at least in the short-run.

34 Calculated as the GDP per capita times average population.
$1.1 trillion (€990bn), depending on the corruption index. This corresponds to about 4.9 per cent - 6.3 per cent of overall EU-28 GDP. This estimate is in line with the 5 per cent of GDP estimate made by the WEF.

We further find large Member State variation in terms of the economic costs of corruption, with the countries with relative high levels of corruption losing most economic output (relative to their overall GDP). For instance, Bulgaria, Croatia, Romania and Latvia lose almost 15 per cent of their annual GDP due to corruption. We note that Scenario 1 is probably very optimistic as it assumes a large reduction the current levels of corruption in many Member States. In our view, this is still the benchmark to choose as it gives a clear indication of which Member States with high levels of corruption lose out, at least in the medium or long-term. Nevertheless, we also provide cost estimates for Scenario 2 (Table 7) and Scenario 3 (Table 8). For instance, under Scenario 2, were we to assume that all countries above the EU-28 average level of corruption converge to the average level, we predict an overall cost of above average levels of corruption in terms of lost GDP of $199bn (€179bn) – $284bn (€256bn) for the EU-28.

For Scenario 3 we grouped Member States with similar institutional settings and corruption levels. The working assumption of this benchmark is that Member States will at best converge to the corruption levels of their peers (even though their peers are rather low performing in terms of their corruption levels) because of institutional settings that may prevent them from reducing their corruption levels at least in the short-term. Under Scenario 3 we predict an overall cost of corruption in terms of lost GDP of $242bn (€218bn) – $314bn (€282bn) for the EU-28.

Table 6: Scenario 1 ('The magnificent seven'): Average annually reduction in GDP (in US Dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>ICRG index Costs (US Dollar)</th>
<th>% GDP</th>
<th>CPI index Costs (US Dollar)</th>
<th>% GDP</th>
<th>COC Index Costs (US Dollar)</th>
<th>% GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>7,456,490,886</td>
<td>2.40%</td>
<td>11,595,343,791</td>
<td>3.73%</td>
<td>8,519,659,975</td>
<td>2.74%</td>
</tr>
<tr>
<td>Belgium</td>
<td>19,934,710,965</td>
<td>5.17%</td>
<td>24,134,508,591</td>
<td>6.26%</td>
<td>25,669,982,244</td>
<td>6.66%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>12,707,055,887</td>
<td>14.57%</td>
<td>12,406,069,147</td>
<td>14.22%</td>
<td>19,191,669,331</td>
<td>22.01%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1,654,304,740</td>
<td>5.79%</td>
<td>2,391,053,816</td>
<td>8.37%</td>
<td>2,627,589,371</td>
<td>9.19%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>28,127,023,159</td>
<td>11.95%</td>
<td>29,709,932,588</td>
<td>12.62%</td>
<td>39,624,863,171</td>
<td>16.84%</td>
</tr>
<tr>
<td>Germany</td>
<td>63,460,312,004</td>
<td>2.09%</td>
<td>116,472,046,732</td>
<td>3.84%</td>
<td>80,949,879,691</td>
<td>2.67%</td>
</tr>
<tr>
<td>Denmark</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Spain</td>
<td>74,885,410,532</td>
<td>5.94%</td>
<td>100,564,833,497</td>
<td>7.98%</td>
<td>120,685,426,107</td>
<td>9.58%</td>
</tr>
<tr>
<td>Estonia</td>
<td>2,000,127,486</td>
<td>9.05%</td>
<td>1,815,525,498</td>
<td>8.22%</td>
<td>2,690,989,939</td>
<td>12.18%</td>
</tr>
<tr>
<td>Finland</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>France</td>
<td>129,041,552,599</td>
<td>6.10%</td>
<td>133,629,530,786</td>
<td>6.31%</td>
<td>150,448,184,676</td>
<td>7.11%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>83,175,860,582</td>
<td>4.25%</td>
<td>45,849,415,327</td>
<td>2.34%</td>
<td>51,128,831,097</td>
<td>2.61%</td>
</tr>
</tbody>
</table>

Note that the cost estimates are in US Dollars. This allows the comparison with other estimates from the World Bank and the WEF. To translate these values into EUROS we use an exchange rate of Dollar to Euro of 0.9.
# Annex II: Corruption

## Table 7: Scenario 2 ('Catch me if you can') - Average annually reduction in GDP (in US dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>ICRG index</th>
<th>CPI index</th>
<th>COC Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Costs (US Dollar)</td>
<td>% GDP</td>
<td>Costs (US Dollar)</td>
</tr>
<tr>
<td>Austria</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Belgium</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>6,070,081,224</td>
<td>6.96%</td>
<td>5,512,249,461</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0</td>
<td>0.00%</td>
<td>131,967,803</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>10,216,549,007</td>
<td>4.34%</td>
<td>11,106,339,000</td>
</tr>
<tr>
<td>Germany</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Denmark</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>0</td>
<td>0.00%</td>
<td>954,061,381</td>
</tr>
<tr>
<td>Estonia</td>
<td>319,093,223</td>
<td>1.44%</td>
<td>69,436,703</td>
</tr>
<tr>
<td>Finland</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes: entries with 0 correspond to the fact that the particular country is below the average benchmark to which costs are calculated. In Scenario 1, this is the average of the 7 best performing countries. We use the total EU GDP of $18.495 trillion to calculate the share of the cost of corruption among the total EU GDP. Values are in US Dollars.
The Cost of Non-Europe in the area of Organised Crime and Corruption

<table>
<thead>
<tr>
<th>Country</th>
<th>Costs (US Dollar)</th>
<th>% GDP</th>
<th>Costs (US Dollar)</th>
<th>% GDP</th>
<th>Costs (US Dollar)</th>
<th>% GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Greece</td>
<td>13,670,956,818</td>
<td>4.96%</td>
<td>16,157,018,890</td>
<td>5.86%</td>
<td>20,642,428,234</td>
<td>7.49%</td>
</tr>
<tr>
<td>Croatia</td>
<td>3,651,134,486</td>
<td>5.22%</td>
<td>3,921,948,874</td>
<td>5.61%</td>
<td>7,039,254,481</td>
<td>10.07%</td>
</tr>
<tr>
<td>Hungary</td>
<td>3,571,744,391</td>
<td>1.88%</td>
<td>7,272,910,144</td>
<td>3.82%</td>
<td>10,002,768,153</td>
<td>5.25%</td>
</tr>
<tr>
<td>Republic of Ireland</td>
<td>6,931,460,357</td>
<td>4.65%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Italy</td>
<td>105,433,065,735</td>
<td>5.27%</td>
<td>104,831,660,664</td>
<td>5.24%</td>
<td>140,321,246,367</td>
<td>7.01%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2,713,707,104</td>
<td>6.21%</td>
<td>1,536,219,561</td>
<td>3.52%</td>
<td>3,454,354,355</td>
<td>7.91%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Latvia</td>
<td>2,071,947,760</td>
<td>7.03%</td>
<td>1,548,895,392</td>
<td>5.26%</td>
<td>2,623,871,164</td>
<td>8.90%</td>
</tr>
<tr>
<td>Malta</td>
<td>88,717,323</td>
<td>0.95%</td>
<td>69,563,352</td>
<td>0.75%</td>
<td>124,676,777</td>
<td>1.34%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Poland</td>
<td>23,390,917,839</td>
<td>4.03%</td>
<td>27,205,920,774</td>
<td>4.69%</td>
<td>33,745,639,214</td>
<td>5.82%</td>
</tr>
<tr>
<td>Portugal</td>
<td>0</td>
<td>0.00%</td>
<td>55,798,810</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Romania</td>
<td>16,174,799,666</td>
<td>5.88%</td>
<td>21,171,086,527</td>
<td>7.70%</td>
<td>33,376,860,583</td>
<td>12.14%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>4,314,034,395</td>
<td>4.65%</td>
<td>4,826,668,869</td>
<td>5.20%</td>
<td>6,878,043,349</td>
<td>7.41%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1,041,437,673</td>
<td>2.27%</td>
<td>302,412,322</td>
<td>0.66%</td>
<td>448,461,742</td>
<td>0.98%</td>
</tr>
<tr>
<td>Sweden</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>Total EU-28</strong></td>
<td><strong>199,659,647,002</strong></td>
<td><strong>1.08%</strong></td>
<td><strong>206,674,158,526</strong></td>
<td><strong>1.12%</strong></td>
<td><strong>284,544,529,807</strong></td>
<td><strong>1.54%</strong></td>
</tr>
</tbody>
</table>

**Notes**: entries with 0 correspond to the fact that the particular country is below the average benchmark to which costs are calculated. In Scenario 1, this is the average of the 7 best performing countries. We use the total EU GDP of $18.495 trillion to calculate the share of the cost of corruption among the total EU GDP.

Table 8: Scenario 3 ('Goodfellas') -
Average annually reduction in GDP due to corruption (in US Dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>ICRG index</th>
<th>CPI index</th>
<th>COC Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>4,788,568,502</td>
<td>1.54%</td>
<td>10,494,623,405</td>
</tr>
<tr>
<td>Belgium</td>
<td>0</td>
<td>0.00%</td>
<td>2,186,617,155</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>4,434,030,731</td>
<td>5.08%</td>
<td>1,348,020,224</td>
</tr>
<tr>
<td>Cyprus</td>
<td>176,123,438</td>
<td>0.62%</td>
<td>763,592,912</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>5,801,519,336</td>
<td>2.46%</td>
<td>0</td>
</tr>
<tr>
<td>Germany</td>
<td>37,408,173,523</td>
<td>1.23%</td>
<td>105,723,563,163</td>
</tr>
<tr>
<td>Denmark</td>
<td>3,332,195,897</td>
<td>1.54%</td>
<td>4,961,489,334</td>
</tr>
<tr>
<td>Spain</td>
<td>9,707,378,386</td>
<td>0.77%</td>
<td>28,804,556,860</td>
</tr>
<tr>
<td>Estonia</td>
<td>857,614,190</td>
<td>3.88%</td>
<td>557,631,273</td>
</tr>
<tr>
<td>Country</td>
<td>ICRG index</td>
<td>CPI index</td>
<td>COC Index</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>Costs (US Dollar)</td>
<td>% GDP</td>
<td>Costs (US Dollar)</td>
</tr>
<tr>
<td>Finland</td>
<td>0</td>
<td>0.00%</td>
<td>4,430,729,792</td>
</tr>
<tr>
<td>France</td>
<td>19,565,866,277</td>
<td>0.92%</td>
<td>13,098,037,631</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>66,368,279,553</td>
<td>3.39%</td>
<td>38,915,013,046</td>
</tr>
<tr>
<td>Greece</td>
<td>8,497,556,876</td>
<td>3.08%</td>
<td>2,989,195,900</td>
</tr>
<tr>
<td>Croatia</td>
<td>2,340,088,736</td>
<td>3.35%</td>
<td>584,952,205</td>
</tr>
<tr>
<td>Hungary</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Republic of Ireland</td>
<td>16,997,771,411</td>
<td>11.40%</td>
<td>5,553,771,954</td>
</tr>
<tr>
<td>Italy</td>
<td>67,869,668,392</td>
<td>3.39%</td>
<td>9,221,776,892</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1,893,984,185</td>
<td>4.33%</td>
<td>0</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0</td>
<td>0.00%</td>
<td>639,030,987</td>
</tr>
<tr>
<td>Latvia</td>
<td>1,519,211,822</td>
<td>5.16%</td>
<td>142,020,013</td>
</tr>
<tr>
<td>Malta</td>
<td>316,016,800</td>
<td>3.39%</td>
<td>275,621,013</td>
</tr>
<tr>
<td>Netherlands</td>
<td>22,969,123,022</td>
<td>3.54%</td>
<td>28,020,214,746</td>
</tr>
<tr>
<td>Poland</td>
<td>12,510,331,827</td>
<td>2.16%</td>
<td>0</td>
</tr>
<tr>
<td>Portugal</td>
<td>1,968,714,335</td>
<td>0.77%</td>
<td>5,704,045,691</td>
</tr>
<tr>
<td>Romania</td>
<td>11,015,890,778</td>
<td>4.01%</td>
<td>8,040,147,526</td>
</tr>
<tr>
<td>Slovakia</td>
<td>2,573,306,944</td>
<td>2.77%</td>
<td>396,006,014</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2,161,767,524</td>
<td>4.70%</td>
<td>1,318,043,995</td>
</tr>
<tr>
<td>Sweden</td>
<td>9,249,956,236</td>
<td>2.77%</td>
<td>10,524,644,885</td>
</tr>
<tr>
<td>Total EU-28</td>
<td>314,323,138,720</td>
<td>1.70%</td>
<td>284,693,346,616</td>
</tr>
</tbody>
</table>

**Notes:** entries with 0 correspond to the fact that the particular country is below the average benchmark to which costs are calculated. In Scenario 1, this is the average of the 7 best performing countries. We use the total EU GDP of $18.495 trillion to calculate the share of the cost of corruption among the total EU GDP.

Scenario 2 and Scenario 3 are in a similar ballpark of the overall cost of corruption estimate. The cost estimate under Scenario 1 is much larger as it assumes a more ambitious reduction in the corruption levels of the Member States with high levels of corruption.

From a conceptual point of view, Scenario 1 is the preferred option in the view of the authors, as it is still a more modest benchmark than what other scholars have applied (i.e. best performing country) and it implies that some countries do better than others, so at a minimum, how the best performing countries perform is the least that could be achieved, at least in the medium to long-term, independent of the institutional settings of a particular Member State. We leave it up to the reader to decide which scenario she prefers. Box 2 provides a discussion on how our estimates of the cost of corruption compare to other high-level estimates provided by other institutions.
Box 2: How do our cost of corruption estimates compare to other existing estimates?

Table A2 (Appendix A) gives an overview of existing cost of corruption estimates. How do our economic cost estimates compare to existing estimates from the EU ACR, the WEF or the World Bank?

Overall, our number is substantially higher than the €120bn estimate from the European Commission, especially under Scenario 1 (€817 billion – €990 billion). This is driven by the fact that the Commission’s estimate includes, to the best of our knowledge, only tax revenues and EU funds, and does not account for indirect effects of corruption. Our estimate is in GDP terms and therefore takes, at least to a wider extent, indirect effects into account. Interestingly, our estimates under Scenario 1 are in line, at least in relative terms, with the WEF estimate, which postulates that the economic costs of corruption are around five per cent of global GDP.

Our estimate under Scenario 1 is substantially higher than the $1 trillion global value of bribes paid estimate circulated by the World Bank. However, it is important to note that our estimates, by measuring the foregone annual GDP, include at least largely the indirect effects that accrue from high levels of corruption and do not focus solely on specific cost elements such as bribes paid.

1.5.2. Social costs

Table 9 reports the findings for the effect of corruption on inequality, the rule of law and organised crime. Similar to previous literature, we find that corruption increases with inequality. Using the Gini-index as a measure for inequality (higher values equal a more unequal wealth distribution) our findings suggest that, independent of the corruption index applied (see Panel A, column 2, 4 and 6 for the 2SLS estimates), we find a positive relationship between the level of corruption and a larger Gini coefficient. For instance, a one-unit increase in the CPI index increases the Gini-index by 0.98 points.36

For instance, if Italy reduced the level of corruption (measured by the CPI index, see Table 3) to the level of Denmark, Italy’s Gini-index would be lower by 3.86 points. Alternatively, we also used the share of the 20 per cent richest in a country as different inequality measure and our findings suggest the same relationship between corruption and inequality as when using the Gini-index.

Furthermore, Panel B shows the relationship between corruption and the rule of law. Again, independent of the corruption index used, we find a negative relationship between corruption and the rule of law. Panel C of Table 2-11 reports similar findings when we look at the relationship between corruption and organised crime. We therefore find a statistically significant relationship between corruption, the rule of law and organised crime in the EU.

36 The Gini-coefficient is measured on a scale from 0 to 100.
Table 9: Effect of corruption on inequality, rule of law and organized crime

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>estimation method:</strong></td>
<td>OLS</td>
<td>2SLS</td>
<td>OLS</td>
<td>2SLS</td>
<td>OLS</td>
<td>2SLS</td>
</tr>
<tr>
<td><strong>Panel A: Gini-index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>CPI index</td>
<td>0.2731</td>
<td>0.9820</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.187)</td>
<td>(0.399)**</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ICRG index</td>
<td>2.6610</td>
<td>6.4707</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(1.527)*</td>
<td>(2.561)**</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>COC index</td>
<td>0.5137</td>
<td>2.4014</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.479)</td>
<td>(0.886)**</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>First-stage F-stat:</strong></td>
<td>17.86</td>
<td>22.667</td>
<td>30.12</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Over-id test (p-value):</strong></td>
<td>0.0882</td>
<td>0.108</td>
<td>0.0821</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N:</strong></td>
<td>133</td>
<td>133</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td><strong>Panel B: Rule of Law</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CPI index</td>
<td>-0.0660</td>
<td>-0.0573</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.010)**</td>
<td>(0.024)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICRG index</td>
<td>-0.4759</td>
<td>-0.3526</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.074)**</td>
<td>(0.158)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COC index</td>
<td>-0.1721</td>
<td>-0.1092</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.020)**</td>
<td>(0.046)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>First-stage F-stat:</strong></td>
<td>17.63</td>
<td>26.66</td>
<td>27.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Over-id test (p-value):</strong></td>
<td>0.5216</td>
<td>0.5497</td>
<td>0.3781</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N:</strong></td>
<td>133</td>
<td>133</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td><strong>Panel C: Organised Crime</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI index</td>
<td>-0.0408</td>
<td>-0.0430</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.017)*</td>
<td>(0.025)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICRG index</td>
<td>-0.3009</td>
<td>-0.2723</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.109)**</td>
<td>(0.115)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COC index</td>
<td>-0.0934</td>
<td>-0.0849</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.035)**</td>
<td>(0.044)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>First-stage F-stat:</strong></td>
<td>14.24</td>
<td>47.71</td>
<td>18.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Over-id test (p-value):</strong></td>
<td>0.8049</td>
<td>0.9225</td>
<td>0.8616</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N:</strong></td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
</tbody>
</table>

Note: panel-robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.010. For the purpose of the analysis, the sample of 28 Member State has been divided into four cross-sections: 1995-1998; 1999-2002; 2003-2006; 2007-2010; 2011-2014 when we analyse inequality and rule of law. Organised crime data from WEF is only available from 2006 onwards, so we split the data into two cross-sections: 2006-2010 and 2010-2014. All outcome and control variable have been averaged over these sub-periods. OLS = Ordinary Least Squares; 2SLS = Two-Stage Least Squares IV estimation. All 2SLS estimations have a first-stage F-statistic > 14. Each model includes time fixed-effects and region fixed-effects (south, east, north; west serves as reference category).
1.5.3. Political costs

Table 2-12 reports the effects of corruption on voter turnout and trust in European institutions. Panel A and B highlight the relationship between corruption and voter turnout at national parliamentary elections and elections of the European Parliament. Our estimates suggest a statistically significant negative relationship between corruption and turnout at national parliamentary elections. For instance, a one-unit increase in the CPI index corresponds to a 0.09 percentage point lower turnout. Interestingly, we do not find such a relationship when we look at European Parliament elections. The point estimates (columns 2, 4 and 6) are negative, but not statistically significant. Overall, the average voter turnout is lower at European Parliament elections (47 per cent) compared to national parliament elections (72 per cent). This could serve as an explanation for the non-significant effect of corruption on European Parliament elections.

Panels C, D, and E include the estimates for trust in EU institutions. We note that for these models, our instrumental variable approach was not successful. The F-statistic of the first stage regressions reveals a weak instrument. This is a technical issue, but from previous estimates, we would expect that the 2SLS estimates under a non-weak instrument would be larger than the OLS estimates in magnitude. Therefore, the OLS estimates still provide indication that corruption is negatively related to trust in EU institutions, just the absolute value of the parameter is biased towards zero, but statistically significant. Hence, the OLS estimates in columns 1, 3, and 5 suggest a negative relationship between corruption and trust in EU institutions, including the European Commission, the European Parliament or the European Union as a whole. For instance, the OLS estimate in Panel C for the CPI corruption index suggests that a one-unit increase in the index lowers the share of citizens reporting trust in the European Commission by 0.08 percentage points.

2. The costs of corruption in relation to public procurement at EU level

The estimates presented in the previous sections represent the aggregated costs for the whole EU-economy and its corresponding Member States. However, the costs of corruption can vary across different sectors in an economy. For instance, public procurement is frequently identified as a sector vulnerable to corruption, as demonstrated by a section dedicated to this topic in the 2014 EU Anticorruption Report.

As outlined in the first chapter of this study, public procurement has been chosen as a case study to assess the costs of corruption for a sub-sector of the EU economy, which has a significant size and has been identified in previous research as one of the sectors with relatively high levels of corruption risk. Under the term public procurement, we understand the process by which governments at different levels (national, regional, local) and other public bodies purchase services, products and public works (EC, n.d.-g).

In this section, we adopt a case study approach and investigate in more detail the costs of corruption for a specific area, relying on the same two methods as in the previous section, i.e. document review and econometric modelling. In essence, we revisit the cost estimate by the PWC and Ecorys (2013) study and based on a different quantitative approach seek to estimate the costs of corruption (risk) in public procurement for the EU-28 Member States, including all sectors within the public procurement system.
Table 10: Effect of corruption on voter turnout and trust in EU institutions

<table>
<thead>
<tr>
<th>estimation method:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI index</td>
<td>-0.0556</td>
<td>-0.0902</td>
<td>(0.014)***</td>
<td>(0.018)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICRG index</td>
<td>-0.2882</td>
<td>-0.6294</td>
<td>(0.123)*</td>
<td>(0.137)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COC index</td>
<td>-0.1239</td>
<td>-0.1842</td>
<td>(0.028)***</td>
<td>(0.035)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-stage F-stat:</td>
<td>14.69</td>
<td>17.25</td>
<td>15.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over-id test (p-value):</td>
<td>0.9606</td>
<td>0.6062</td>
<td>0.8765</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N:</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
</tbody>
</table>

Panel A: Voter Turnout (Parliamentary)

| CPI index | -0.0266 | -0.0242 | (0.027) | (0.027) |
| ICRG index | 0.0619 | -0.1796 | (0.183) | (0.194) |
| COC index | -0.0558 | -0.0525 | (0.054) | (0.054) |
| First-stage F-stat: | 14.24 | 16.28 | 18.12 |
| Over-id test (p-value): | 0.2449 | 0.2632 | 0.2482 |
| N: | 56 | 56 | 56 | 56 | 56 | 56 |

Panel B: Voter Turnout (EP)

| CPI index | -0.0803 | -0.4642 | (0.029)** | (0.364) |
| ICRG index | -0.7060 | -1.6182 | (0.249)** | (0.745)* |
| COC index | -0.1955 | -0.6223 | (0.062)** | (0.276)* |
| First-stage F-stat: | 0.312 | 1.45 | 1.61 |
| Over-id test (p-value): | 0.0721 | 0.059 | 0.0692 |
| N: | 56 | 56 | 56 | 56 | 56 | 56 |

Panel C: Trust European Commission

| CPI index | -0.5243 | -1.1255 | (0.195)* | (0.622) |
| ICRG index | -0.3009 | -0.2723 | (0.109)** | (0.115)* |
| COC index | -0.1519 | -0.4731 | (0.047)** | (0.232)* |
| First-stage F-stat: | 0.312 | 1.45 | 1.61 |
| Over-id test (p-value): | 0.0721 | 0.059 | 0.0692 |
| N: | 56 | 56 | 56 | 56 | 56 | 56 |
The Cost of Non-Europe in the area of Organised Crime and Corruption

<table>
<thead>
<tr>
<th>estimation method:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-stage F-stat:</td>
<td>OLS</td>
<td>2SLS</td>
<td>OLS</td>
<td>2SLS</td>
<td>OLS</td>
<td>2SLS</td>
</tr>
<tr>
<td>Over-id test (p-value):</td>
<td>0.317</td>
<td>1.45</td>
<td>1.611</td>
<td>0.0619</td>
<td>0.031</td>
<td>0.0581</td>
</tr>
<tr>
<td>N:</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
</tbody>
</table>

Panel E: Trust European Union

| CPI index | -0.0738 | -0.3438 |
| ICGRG index | -0.6057 | -1.4918 |
| COC index | -0.1710 | -0.4810 |

Notes: panel-robust standard errors in parentheses;*** p<0.001, ** p<0.01, * p<0.010. For the purpose of the analysis, the sample of 28 Member State has been divided into two cross-sections: 1996-2005; 2006-2014. All outcome and control variable have been averaged over these sub-periods. OLS = Ordinary Least Squares; 2SLS = Two-Stage Least Squares IV estimation. All 2SLS estimations have a first-stage F-statistic > =14. Each model includes time fixed-effects and region fixed-effects (south, east, north; west serves as reference category).

2.1. The nature of corruption in public procurement

Public procurement represents around one third of public spending in developed countries, therefore corruption in the domain of governmental contracting can have substantial costs (OECD 2013a). Especially in the EU, public procurement has a strong economic significance, with around 20 per cent of EU GDP annually spent by government, public sector and utility service providers for goods, services and public works (PricewaterhouseCoopers and Ecorys 2013).

The World Bank defines corruption in public procurement as an action to steer a contract to the favoured bidder without detection. This can be handled through different channels, including (a) avoiding competition through unjustified sole sourcing or direct contracting of awards; (b) favouring a certain bidder by tailoring specifications or (c) sharing inside information (World Bank 2009b). This represents restricted and unfair access to public resources (see Mungiu-Pippidi 2006).

2.2. Existing measures of corruption in public procurement and their corresponding costs

In the infrastructure sector, it is estimated that the financial loss incurred due to corruption ranges between ten and 30 per cent of publicly funded construction projects (Transparency International 2005). In that regard, the study by Alexeeva et al. (2011) uses a data set of road sector contracts funded by the World Bank for 14 countries of Europe and Central Asia covering the years 2000 to 2014. The authors constructed a list of 11 different ‘red flags’, including for instance cost increases by more than 20 per cent during implementation, time overrun by 30 per
cent, or contract value more than 20 per cent above its engineers estimate, as indicators for corruption risk among the public procurement contracts analysed. The empirical findings suggest that one additional red flag is associated with $91,000 to $100,000 cost increase per km of road rehabilitation and/or road reconstruction. Collier et al. (2015) investigates the cost of road infrastructure in low and middle-income countries and finds that costs are higher in countries with higher levels of corruption, measured by the Worldwide Governance Indicators (WGI). For instance, countries with corruption levels above the median of the WGI measure have about 15 per cent higher costs. Using a randomised field experiment, the study by Olken and Barron (2007) investigates road projects in over 600 Indonesian villages. The findings of the study suggest that increased monitoring of projects (from an average of four per cent to 100 per cent) reduces (on average) missing expenditures from around 28 per cent to 19 per cent.

From an EU perspective, the study by Fazekas & Tóth (2016) shows that relative infrastructure contract values (ratio between actual contract price and estimated price) increase in every EU member with a higher risk of corruption (measured as corruption risk based on ‘red flags’). Prices for infrastructure projects with large corruption risk, compared to contracts without corruption risk are about 16 per cent higher on average across the EU. However, the association between corruption risk and relative prices of contracts varies across the EU, with countries such as Poland, Greece and the UK showing a strong relationship between corruption risk and relative price. For instance, in Poland, if a public procurement contract moves from the lowest corruption risk to the highest, this would result in about 28 per cent higher infrastructure prices. A large study by PWC and Ecorys (2013) investigates the costs of corruption in EU public procurement, with a special emphasis on different sub-sectors (not exclusively infrastructure) of public procurement involving EU funds. It is noted that EU Structural and Cohesion Funds contribute heavily to EU public procurement, with a total budget of these funds of around €347bn over the period of 2007 to 2013, corresponding to 0.4 per cent of the EU-27 budget in 2010. Focussing on eight Member States and five sectors where EU funds are spent and using EU and national procurement data, the study finds significant costs of corruption in EU public procurement. The direct public loss in corrupt and grey cases (defined as cases that did not directly lead to a conviction, but where there were indications of corruption risk, measured by ‘red flags’) led to a cost estimate of corruption in the ballpark of €1.4 to €2.2bn in 2010. Using data for all sub-sectors and Member States from Tenders Electronic Daily (TED) for the years 2009-2014 (EC 2015e), a recent study by Fazekas & Koscis (2015) finds that corruption risks in public procurement contracts increases the relative price of the contract by around 16 per cent.

We will follow closely the approach by Fazekas & Koscis (2015) to quantify the costs of corruption in public procurement for all EU Member States and a large sub-set of procurement sectors.
2.3. Empirical Approach: How to investigate the costs of corruption in public procurement?

2.3.1. Using a large public procurement database and a measure of corruption risk

Fazekas & Koscis (2015) develop a comprehensive public procurement database (PP database) derived from public procurement announcements in 2009-2014 in the EU and Norway.\(^{37}\) The database includes all public procurement procedures conducted under the EU Public Procurement Directives. The database was released by DG GROW, which conducted a number of data quality checks and enhancements. In essence, TED includes a set of variables that appear in calls for tenders and contract award notices. The TED database contains over 2.8 million comparable contracts for the EU Member States. The PP database includes an indicator on whether EU funds have been used in public procurement. This information was identified from each contract award announcement if the use or non-use of EU funds was provided. Unfortunately, it doesn’t breakdown the share of EU funds used for each contract, all that is known is whether funds have been used in a specific contract or not. In addition, the PP database includes information on the type and sector of the contracting body, the awarded contract value, the contract’s Common Procurement Vocabulary (CPV) code, as well as the relative price of the contract (measured as the awarded contract value divided by the estimated contract value). After some data cleaning, the data includes 575,756 contracts over the time period 2009 to 2014 for all EU-28 Member States. It is important to note though that for Malta the total number of contracts is rather low; nevertheless, to capture all 28 Member States we include Malta as well.

The most important variable included in the PP database is a novel measure of corruption risk in public procurement. Fazekas & Koscis (2015) construct an objective measure of corruption in public procurement, which makes use of a range of public procurement ‘red flags’, similar to the flags identified in the PWC and Ecorys study (2013). Fazekas & Koscis (2015) use several different indications of corruption to create a composite measure called the Corruption Risk Index (CRI). In essence, the CRI is a weighted measure of the following ‘red flags’:

- **No call for tender published in official journal**: for instance, simple way of fixing tenders is to avoid publication of the call for tenders in official public procurement journal (i.e. TED) as this makes it harder for competitors to bid.
- **Non-open procedure type**: for instance, invitation tenders are less competitive and use less open and transparent tender procedures.
- **Length of advertisement period**: for instance when the number of days between publishing a tender and the submission deadline is short, preparing an adequate bid might be difficult and hence could serve corrupt purposes.
- **Weight of non-price evaluation criteria**: for instance, different types of evaluation criteria are more prone to ‘fiddling’ to different degrees, as subjective and hard to quantify evaluation criteria could create room for corruptive behaviour.
- **Length of decision period**: for instance, if the time used to decide on the received bids is very short, this can signal a corruption risk, whereas very short decisions may represent premeditated assessment.

\(^{37}\) Available at http://digiwhist.eu/resources/data/ (As of 22 February 2016)
The CRI index is a weighted measure of the ‘red flags’ described above expressed as a scored between 0 and 1. **It is important to stress that the CRI measures corruption risk and not direct corruptive practices in the procurement of a contract.** It is more a warning signal of a potential corruptive behaviour taking place. At the same time, a low value of the CRI index does not automatically imply that corruption did not occur.

In what follows, we use the PP database to analyse the extent of corruption risk across the EU, including NUTS regions and sub-sectors, and to what extent EU funds are associated with corruption risk. What is more, we seek to calculate the costs of corruption risk in EU public procurement for all Member States.

### 2.3.2. Descriptive evidence: Corruption risks across Europe

#### EU Member States level

The corruption risk in public procurement varies substantially across EU Member States (see Figure 1). For instance, Luxemburg reports the lowest value for the CRI index and the highest risk for corruption among public procurement contracts is observed in Croatia. The countries with above EU-28 average corruption risk in public procurement are Poland, Romania, Lithuania, Cyprus and Croatia.

![Figure 1: Corruption risk across EU Member States](source: PP database)

**Corruption Risk Index (CRI) - EU Member States**

#### European NUTS 2 regions

We also observe variation in corruption risks in public procurement across European NUTS-2 regions and not only across EU Member States (see Figure 2). Interestingly we further see variation across regions within Member States. For instance, within Spain or Italy we observe some regions with relative high risks in public procurement contracts compared to other
regions. Even within Germany, which across the EU average has relatively low levels of corruption risks, there is one region that reports a relative high value of the CRI index (DE 71).

The NUTS-2 regions with the highest average risk scores across all procurement contracts are reported in Table 11. The regions are located in Cyprus, Croatia, Poland, Lithuania, Germany, and Romania.

**Figure 2: Corruption risk across EU NUTS-2 regions**

![Corruption risk across EU NUTS-2 regions](image)

Source: PP database

**Table 11: 15 NUTS-2 region with highest average CRI index (2009-2014)**

<table>
<thead>
<tr>
<th>NUTS-2 Region</th>
<th>CRI Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY00</td>
<td>0.590</td>
</tr>
<tr>
<td>HR01</td>
<td>0.580</td>
</tr>
<tr>
<td>HR03</td>
<td>0.572</td>
</tr>
<tr>
<td>PT30</td>
<td>0.566</td>
</tr>
<tr>
<td>DE71</td>
<td>0.542</td>
</tr>
<tr>
<td>HR02</td>
<td>0.533</td>
</tr>
<tr>
<td>LT00</td>
<td>0.532</td>
</tr>
<tr>
<td>PL52</td>
<td>0.523</td>
</tr>
</tbody>
</table>
Corruption risks and EU funds in public procurement across EU Member States

Fazekas et al. (2013) argue that external funds, such as EU funds, could deteriorate the quality of government and hence increase the risk for corruption. The authors mention three reasons for this. Firstly, EU funds are often spent on investment projects where public discretion is relatively high and it is documented that discretionary spending is more likely related to corruption than non-discretionary spending. Secondly, EU funds provide a large pool of public resources for rent extraction of public agents. Thirdly, EU funds weaken the link between domestic civil society, taxation and policy performance.

Table 13 highlights the fact that across the EU-28 Member States around 15 per cent of contracts use EU funds and that the corruption risk measured by the CRI index is slightly smaller for contracts that involve these funds. When we look at the countries where a large share of public procurement contracts involve EU funds, like Czech Republic, Greece, Lithuania, Luxembourg,
Bulgaria, Portugal or Hungary, the corruption risk in contracts with EU funds is mostly smaller (except for Lithuania). While there is a corruptive risk for contracts that involve EU funds, the risk seems to be slightly smaller, generally across the board of all EU Member States.

2.3.3. Methodology to estimate costs of corruption risk in EU public procurement

Corruptive practices within the public procurement system can drive up prices of projects, not only in the infrastructure sector, as highlighted in the section above. Usually, projects can be divided into distinct cost components, including for instance, labour or energy costs, which would allow the estimation of unit costs of each particular project or contract. However, in the absence of such detailed information we follow the approach taken by Fazekas & Tóth (2016) and use the measure of prices in form of the relative contract value, which is available in the PP database.

Table 13: Corruption risk compared across contract with EU funds and no EU funds

<table>
<thead>
<tr>
<th>Country</th>
<th>% contracts with EU Funds</th>
<th>CRI (no EU Fund)</th>
<th>CRI (EU Fund)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>0.45</td>
<td>0.351</td>
<td>0.323</td>
</tr>
<tr>
<td>Greece</td>
<td>0.38</td>
<td>0.329</td>
<td>0.232</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.32</td>
<td>0.484</td>
<td>0.528</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.29</td>
<td>0.156</td>
<td>0.072</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>0.28</td>
<td>0.343</td>
<td>0.283</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.28</td>
<td>0.339</td>
<td>0.249</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.26</td>
<td>0.272</td>
<td>0.223</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.26</td>
<td>0.284</td>
<td>0.231</td>
</tr>
<tr>
<td>Malta</td>
<td>0.22</td>
<td>0.404</td>
<td>0.304</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.18</td>
<td>0.180</td>
<td>0.145</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.17</td>
<td>0.360</td>
<td>0.293</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.14</td>
<td>0.358</td>
<td>0.313</td>
</tr>
<tr>
<td>Germany</td>
<td>0.10</td>
<td>0.312</td>
<td>0.316</td>
</tr>
<tr>
<td>Poland</td>
<td>0.09</td>
<td>0.429</td>
<td>0.472</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.08</td>
<td>0.222</td>
<td>0.243</td>
</tr>
<tr>
<td>Spain</td>
<td>0.08</td>
<td>0.252</td>
<td>0.246</td>
</tr>
<tr>
<td>Finland</td>
<td>0.07</td>
<td>0.328</td>
<td>0.305</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.07</td>
<td>0.297</td>
<td>0.363</td>
</tr>
<tr>
<td>Romania</td>
<td>0.07</td>
<td>0.457</td>
<td>0.335</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0.07</td>
<td>0.344</td>
<td>0.376</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0.05</td>
<td>0.588</td>
<td>0.427</td>
</tr>
<tr>
<td>France</td>
<td>0.05</td>
<td>0.221</td>
<td>0.275</td>
</tr>
<tr>
<td>Italy</td>
<td>0.04</td>
<td>0.371</td>
<td>0.361</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.03</td>
<td>0.304</td>
<td>0.313</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.03</td>
<td>0.176</td>
<td>0.360</td>
</tr>
<tr>
<td>Austria</td>
<td>0.02</td>
<td>0.240</td>
<td>0.181</td>
</tr>
</tbody>
</table>
Country | % contracts with EU Funds | CRI (no EU Fund) | CRI (EU Fund)
---|---|---|---
Sweden | 0.02 | 0.148 | 0.100
Croatia | 0.01 | 0.584 | 0.500
EU-28 Average | 0.15 | 0.326 | 0.299

Notes: Table entries show average CRI index values for all public procurement contracts across the different 28 Member States divided by contracts where EU funds have been used and for those without EU funds. Entries in bold highlight values above average.

The relative contract value (or price) is the ratio of actual contract value divided by originally estimated contract value and has also been used by Coviello & Mariniello (2014) to estimate the effect of publicity on the number of bidders, and hence prices, in the public procurement system of Italy. In essence, this ratio gives a rough estimate of price savings a contract achieved compared to the initial estimate.

Using the relative price of a contract, we assess the costs of corruption in public procurement at EU and Member State level by running the following reduced-form regression model using OLS:

\[
\hat{rprice}_{i_{crt}} = \alpha + \beta CRI_{i_{crt}} + \gamma EUF_{i_{crt}} + \delta_1 + \delta_2 + \delta_3 + \mu_1 + \mu_2 + \mu_3 + \epsilon_{i_{crt}} \tag{2}
\]

Where \( \hat{rprice} \) represents the relative price of a contract \( i \) (ratio of actual contract value divided by originally estimated contract value) in CPV sector \( c \), in region \( r \), country \( c \) and year \( t \). \( CRI \) represents the corruption risk indicator included in the PP database; \( EUF \) is an indicator variable taking the value 1 if the contract included EU funds; \( X \) represents a set of control variables including the type of the contracting body (i.e. national central government, EU institution), the sector of the contracting body (i.e. general public services, health) and the awarded contract value. \( \delta_1 \) represents sub-sector (CPV) fixed effects; \( \delta_2 \) represents region fixed effects; \( \delta_3 \) represents country fixed effects and \( \mu_1 \) represents time fixed effects (year). By including these fixed effects, we ensure that we compare similar public procurement markets that generally can be divided across different regions and CPV sectors within Member States. \( \epsilon_{i_{crt}} \) denotes a random error term.

### 2.3.4. Associations between corruption risk and contract values in EU public procurement

Table 14 reports the association between the corruption risk indicator and relative prices of public procurement prices. We find that a one-unit increase of the CRI index raises prices (or reduces cost savings) on average by about 15 per cent. Fazekas & Koscis (2015) report an association between the CRI index and relative contract value of similar magnitude. The empirical findings further suggest that relative contract values are slightly lower for contracts where EU funds are involved, but the effect is not statistically significantly different from zero. In column (2) we included an interaction effect of the CRI index and the EU funds indicator variable to check whether the effect of corruption risk, measured by the CRI index, is different between contracts with EU funds and contracts without. The parameter estimate for the interaction effect is very small in magnitude and not statistically significant. We therefore conclude that the effect of corruption risk on relative contract values is the same across contracts that have EU funds involved compared to contracts without EU funds.
2.3.5. The costs of corruption in EU public procurement

To calculate the aggregated costs of corruption risk in EU public procurement for each Member State, we employ the estimate of the relative price increase associated with corruption risk (or foregone price savings) included in Table 14 together with the average contract value and the total number of contracts included in the PP database for each Member State. In essence, we multiply the relative price parameter in Table 14 (column 1) by the average CRI index value in any given Member State, times the average contract value.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>estimation method:</td>
<td>OLS</td>
<td>OLS</td>
</tr>
<tr>
<td>dependent variable:</td>
<td>relative contract value</td>
<td></td>
</tr>
<tr>
<td>CRI index</td>
<td>0.1521</td>
<td>0.1521</td>
</tr>
<tr>
<td></td>
<td>(0.030)***</td>
<td>(0.030)***</td>
</tr>
<tr>
<td>EU Fund</td>
<td>-0.0075</td>
<td>-0.0076</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>CRI Index * EU Fund</td>
<td>0.0003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>575,756</td>
<td>575,756</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.0648</td>
<td>0.0649</td>
</tr>
</tbody>
</table>

Notes: Clustered standard errors in parentheses (country level);*** $p<0.01$, ** $p<0.05$, * $p<0.10$. Regression models presented in column 1 and 2 include other controls variables such as the type and sector of contracting body, the contract value and CPV, region, country and year fixed effects. The 95 per cent confidence interval for the CRI index parameter estimate is [0.091, 0.221].

Multiplied by the total number of contracts we derive the total costs of corruption risk. In addition, we derive an upper estimate of what proportion of the total costs relates to EU funds by using the average share of contracts within each Member State that involves these funds. The costs related to EU funds need to be understood as an upper estimate because the PP database does not specify what proportion of the full contract was funded by EU funds.

Overall, our calculations suggest that the costs of corruption risk in EU public procurement are around €5.33bn annually. This figure represents the total costs across all EU-28 Member States and all sectors included in the PP database (by CPV code). There is substantial variation across Member States though. The costs of corruption risk is highest in Poland and the United Kingdom (both above €1bn), followed by Italy (around €0.7 bn) and the Czech Republic (€0.4bn). It is important to stress that Croatia, for instance, has a relative high corruption risk across its public procurement contracts, but the overall value of the contracts is rather low, leading to a relatively low total costs of corruption risk, similar to Bulgaria and Cyprus.

Table 15 further includes a column that relates the total costs to the proportion of contract with EU funds involved. Remember that the PP Database allows us only to identify whether EU funds have been used, but not their overall share of a contract. Therefore, the estimated cost figure of €0.6bn related to EU funds needs to be interpreted as the upper bound estimate, assuming that for each contract the proportion of EU funds was 100 per cent. Box 3 compares...
our estimate to the cost of corruption in public procurement estimate by PWC and Ecorys (2013).

Table 15: Total cost related to corruption risk in EU public procurement

<table>
<thead>
<tr>
<th>Member State</th>
<th>CRI</th>
<th>% EU-Fund</th>
<th>Contract value (EURO)</th>
<th>Contracts per year</th>
<th>Cost Total (EURO) year</th>
<th>Cost related to EUF (EURO) year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>0.239</td>
<td>0.019</td>
<td>3,558,479</td>
<td>257</td>
<td>33,158,751</td>
<td>624,013</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.174</td>
<td>0.176</td>
<td>2,796,542</td>
<td>587</td>
<td>43,309,315</td>
<td>7,601,578</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>0.326</td>
<td>0.284</td>
<td>510,777</td>
<td>546</td>
<td>13,839,039</td>
<td>3,934,711</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0.580</td>
<td>0.052</td>
<td>444,383</td>
<td>449</td>
<td>17,590,453</td>
<td>914,129</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.338</td>
<td>0.454</td>
<td>2,843,961</td>
<td>2731</td>
<td>399,601,343</td>
<td>181,299,929</td>
</tr>
<tr>
<td>Germany</td>
<td>0.313</td>
<td>0.102</td>
<td>950,431</td>
<td>3106</td>
<td>140,316,050</td>
<td>14,373,436</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.182</td>
<td>0.029</td>
<td>3,970,748</td>
<td>233</td>
<td>25,580,679</td>
<td>731,399</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.349</td>
<td>0.167</td>
<td>2,269,548</td>
<td>225</td>
<td>27,078,887</td>
<td>4,513,148</td>
</tr>
<tr>
<td>Spain</td>
<td>0.251</td>
<td>0.078</td>
<td>2,148,650</td>
<td>3066</td>
<td>251,734,281</td>
<td>19,611,571</td>
</tr>
<tr>
<td>Finland</td>
<td>0.327</td>
<td>0.075</td>
<td>1,531,914</td>
<td>456</td>
<td>34,727,318</td>
<td>2,600,110</td>
</tr>
<tr>
<td>France</td>
<td>0.224</td>
<td>0.047</td>
<td>1,246,180</td>
<td>1700</td>
<td>72,110,970</td>
<td>3,407,597</td>
</tr>
<tr>
<td>Greece</td>
<td>0.292</td>
<td>0.377</td>
<td>1,553,876</td>
<td>1117</td>
<td>77,110,065</td>
<td>29,047,130</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.584</td>
<td>0.006</td>
<td>434,902</td>
<td>1916</td>
<td>74,003,746</td>
<td>463,489</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.259</td>
<td>0.265</td>
<td>2,613,523</td>
<td>2362</td>
<td>243,329,958</td>
<td>64,411,883</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.224</td>
<td>0.082</td>
<td>1,564,199</td>
<td>69</td>
<td>3,674,459</td>
<td>301,767</td>
</tr>
<tr>
<td>Italy</td>
<td>0.371</td>
<td>0.038</td>
<td>2,333,702</td>
<td>5287</td>
<td>696,029,492</td>
<td>26,571,204</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.498</td>
<td>0.315</td>
<td>740,956</td>
<td>210</td>
<td>11,799,625</td>
<td>3,721,276</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.132</td>
<td>0.285</td>
<td>1,946,565</td>
<td>74</td>
<td>2,897,453</td>
<td>826,913</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.270</td>
<td>0.257</td>
<td>554,220</td>
<td>3864</td>
<td>88,031,718</td>
<td>22,595,505</td>
</tr>
<tr>
<td>Malta</td>
<td>0.382</td>
<td>0.218</td>
<td>778,769</td>
<td>16</td>
<td>706,756</td>
<td>154,037</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.302</td>
<td>0.070</td>
<td>3,343,660</td>
<td>261</td>
<td>40,078,199</td>
<td>2,813,403</td>
</tr>
<tr>
<td>Poland</td>
<td>0.433</td>
<td>0.094</td>
<td>387,016</td>
<td>55607</td>
<td>1,417,094,143</td>
<td>133,036,685</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.314</td>
<td>0.280</td>
<td>3,116,323</td>
<td>264</td>
<td>39,249,233</td>
<td>10,983,835</td>
</tr>
<tr>
<td>Romania</td>
<td>0.449</td>
<td>0.068</td>
<td>793,570</td>
<td>6791</td>
<td>368,013,805</td>
<td>25,074,400</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.147</td>
<td>0.017</td>
<td>3,135,868</td>
<td>273</td>
<td>19,118,372</td>
<td>315,523</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0.346</td>
<td>0.066</td>
<td>351,424</td>
<td>2132</td>
<td>39,443,543</td>
<td>2,596,065</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.352</td>
<td>0.142</td>
<td>1,414,792</td>
<td>1716</td>
<td>129,980,618</td>
<td>18,496,512</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.305</td>
<td>0.032</td>
<td>11,500,000</td>
<td>1925</td>
<td>1,025,876,827</td>
<td>32,683,112</td>
</tr>
<tr>
<td>EU-28 Total</td>
<td></td>
<td></td>
<td>97,239</td>
<td></td>
<td>5,335,485,098</td>
<td>613,704,360</td>
</tr>
</tbody>
</table>

Notes: the total costs are calculated by multiplying the CRI index point estimate in Table 14, column 1 with the average CRI risk in the Member State, the average awarded contract value and the total number of contracts per year. Applying the 95 per cent confidence interval of the point estimate, the total cost estimate lies in the interval of € 3.12 - 7.76bn.
Box 3: How does our estimate compare to the PWC and Ecorys (2013) estimate?

As outlined above, to the best of our knowledge, the PWC and Ecorys (2013) study focused on eight Member States (France, Hungary, Italy, Lithuania, Netherlands, Poland, Romania and Spain) and five sub-sectors of public procurement, including infrastructure construction, civil construction (water and urban & utility construction), social employment support and health. The study estimates costs in EU public procurement to be around €1.4 to €2.2bn. Our estimate is higher, but includes all Member States and all sub-sectors of procurement included in the PP database. Table 15 includes and reports all the specific predicted costs to all the Member States that have been included in the PWC and Ecorys (2013) study. The combined costs of corruption are around €3.1bn, which is still larger than the €2.2bn, but also includes more sectors. Another reason for a discrepancy in the cost estimates between our study and the PWC and Ecorys (2013) study might be that the latter uses confirmed cases of corruption and grey cases (those with a large number of ‘red flags’) whereas our study employs a novel composite corruption risk index which is based on a number of such flags. Overall, the real cost estimate therefore may lie somewhere in between the €1.4 to €2.2bn and €5.3bn. Nevertheless, it is important to stress that the corruption risk indicator may also pick up non-corruptive cases.

3. Caveats and limitations

There are significant challenges surrounding the measurement of the extent of the corruption problem and of the effectiveness of anti-corruption efforts, particularly when it comes to cross-national comparisons.

Criminal justice statistics are one logical source of information, however:

- The availability of information on corruption, including data on non-criminal cases, is uneven across the Member States (EC 2014h). Some cases that contain an element of corruption may be prosecuted as fraud/falsification of accounts or as organised crime/drugs/people trafficking offences (or the corruption may lead them not to be prosecuted for any offences unless the corruption charges are removed).
- Where there are data available, they often lack coherence across Member States, not least because of the definition of corruption and the range of offences that may be conceived as corruption-related (including by bodies collecting statistics).
- The interpretation of criminal justice statistics is not straightforward. For instance, a high number of corruption cases appearing in courts may suggest a high prevalence of corruption in a given country. However, this may also be an indicator of more positive features, such as an environment in which law enforcement and the judicial system have the necessary tools to combat corruption and thus bring cases to court, or an environment in which there is a will to report corruption on the part of the general population.

Furthermore, an alternative source of information is surveys that ask about respondents’ perceptions of and personal experiences with corruption. Key examples include the
Eurobarometer surveys (as referenced above in Chapter 2 Section I(2), surveys by the World Bank (n.d.-a), World Economic Forum (n.d.), Transparency International (n.d.) and others. However, these sources also pose interpretation problems – albeit their weaknesses are different to those related to criminal justice statistics on corruption:

- Surveys may be subject to social desirability bias (particularly in so far as questions on personal experience with corruption are concerned).
- Their cross-national application may be affected by differences in national contexts.\(^{38}\)
- Survey results may be influenced by some of the mechanisms described above. For instance, if a country’s authorities are successful in bringing more corruption cases to court this may result in greater visibility and media coverage of corruption, fuelling perceptions of high prevalence of the phenomenon.

Information on the fight against corruption (although not the extent or cost of corruption) can be accessed through the standing review mechanisms described above, most notably the work of GRECO (CoE, n.d.-e), the OECD Working Group on Corruption and UNCAC. These review mechanisms focus on measures to fight corruption and their implementation, but have limited ability to provide information on the results of these efforts. In this sense, they are institutional and activity assessments rather than effectiveness assessments.

\(^{38}\) RAND has previously studied the cross-national use of survey tools in our work on *Understanding Intolerance in Western Europe* (Rubin et al., 2014) For theoretical work regarding possible respondent biases, see, for instance, (Paulhus 1984; Podsakoff et al. 2003; Tourangeau & Smith 1996).
CHAPTER 3 THE EFFECTIVENESS OF EXISTING ANTI-CORRUPTION MEASURES

<table>
<thead>
<tr>
<th>Summary and key findings</th>
</tr>
</thead>
</table>

**Research activities:** This chapter responds to research objective 2: ‘Are there gaps and barriers in existing EU actions, including legislation and its implementation which hinder the effective combat against corruption in the EU?’ and to part of objective 3 ‘How effective are different options for combating corruption at EU level? Is there a potential for action at EU level that might lead to added value to responses to the challenges identified?’ The chapter starts by mapping existing EU actions that apply at Member State level. It then provides an assessment of the effectiveness of existing anti-corruption measures. Lastly, it identifies areas for potential EU action.

**Methodologies:** The chapter is based on a review of existing literature (the approach taken to identify relevant sources is described in Appendix B) and interviews with experts and professionals in the field of the fight against corruption.

**Key findings:**
- Key anti-corruption measures applicable to Member States and EU institutions include: The EU Legislative framework; EU institutions with relevant powers (such as the European Anti-Fraud Office – OLAF); EU Monitoring mechanisms (EU ACR, Cooperation and Verification Mechanism, EU Justice Scoreboard); Legislation and guidance from international institutions (Council of Europe, Organisation for Economic Co-operation and Development and United Nations).
- Barriers to the effectiveness of EU or international law stem from a lack of transposition by Member States or lack of implementation or enforcement at the Member State level. These issues may be a reflection of differences in factors such as political will or administrative capacity.
- Some gaps in legislation are identified, such as the lack of an EU-wide system of whistleblower protection and the absence of a harmonised definition of a public official.
- Monitoring mechanisms are generally considered to have contributed to the effectiveness of the fight against corruption at Member State level, although areas for improvement are identified, including the exclusion of EU institutions from these mechanisms.
- Eight potential areas for EU action are identified, to address barriers to the effectiveness of current measures:
  - Make use of infringement proceedings against Member States who have not implemented EU law in relation to the fight against corruption.
  - Support new legislation to harmonise protection for whistleblowing within Member State and/or provide protection to whistleblowers within European institutions.
  - Support new legislation to define a public official.
- Make improvements to the ACR report, including extending coverage to the EU institutions.
- Extend aspects of the Cooperation and Verification Mechanism to other Member States.
- Make improvements to the EU Justice Scoreboard.
- Take steps for the EU to accede to GRECO.
- Establish a European Public Prosecutor’s Office.

1. Description of existing measures

In order to address research objective 2 (‘Are there gaps and barriers in existing EU actions, including legislation and its implementation which hinder the effective combat against corruption in the EU?’), it is necessary to first map measures that have already been passed to prevent, detect, monitor, etc., corruption. This section provides an overview of measures intended for implementation at the national level stemming from: the EU; GRECO; OECD; UN and other sources. The measures discussed in this chapter are summarised in Table 16.

This chapter is not intended to provide a comprehensive account of all actors and measures in the fight against corruption. Those discussed have been identified from the literature review and stakeholder interviews. The discussion of the EU’s current action is presented in two separate sub-categories: 1) legislation and policy, and 2) monitoring and reporting.

Table 16: Summary of EU and international measures to tackle corruption at the Member State level

<table>
<thead>
<tr>
<th>Type of measure</th>
<th>Scope of application</th>
<th>Is it legally binding?</th>
<th>For legally binding measures, summary of compliance / transposition across Member State</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU legislation</td>
<td>All Member State</td>
<td>Yes</td>
<td>Some gaps in transposition</td>
</tr>
<tr>
<td>EU monitoring mechanisms</td>
<td>ACR: All Member State CVM: BG, RO EUJS: All Member State</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Council of Europe – GRECO</td>
<td>All Member State</td>
<td>Yes</td>
<td>A small number of Member State have not ratified key documents.</td>
</tr>
<tr>
<td>OECD</td>
<td>23 Member State</td>
<td>Yes</td>
<td>Implementing legislation has been passed in all Member State (five non-OECD EU Member State not covered)</td>
</tr>
<tr>
<td>UN</td>
<td>All Member State</td>
<td>Yes</td>
<td>Member State participation complete - assessment of implementation is hampered by delays in review</td>
</tr>
</tbody>
</table>

ACR - EU Anticorruption Report; CVM - Cooperation and Verification Mechanism; EUJS – EU Justice Scoreboard
1.1. EU Legislative framework

In its role of coordinating and supporting the fight against corruption, the EU has developed its own instruments (as well as relying on work undertaken by other relevant bodies). Box 4 lists the key EU measures and the date they were adopted.

**Box 4. Overview of key EU-level anti-corruption measures**

<table>
<thead>
<tr>
<th>Year</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Convention on the protection of EU’s financial interests, accompanied by two protocols on corruption and on money laundering offenses</td>
</tr>
<tr>
<td>1997</td>
<td>Convention on the fight against corruption involving EU or EU Member State officials (entered into force in 2005)</td>
</tr>
<tr>
<td>2003</td>
<td>Council framework decision on combating corruption in the private sector</td>
</tr>
<tr>
<td>2008</td>
<td>Accession of the EU to the UN Convention on Corruption</td>
</tr>
<tr>
<td>2008</td>
<td>Establishment of the European contact-point network against corruption</td>
</tr>
<tr>
<td>2011</td>
<td>EC communication on the state of play in the fight against corruption in the EU</td>
</tr>
<tr>
<td>2012</td>
<td>EC proposal for a directive on fight against fraud to the Union’s financial interests by means of criminal law</td>
</tr>
<tr>
<td>2014</td>
<td>Revised public procurement directives (on the award of concession contracts, on public procurement, on procurement by entities operating in the water, energy, transport and postal services sectors, and on electronic invoicing in public procurement)</td>
</tr>
<tr>
<td>2014</td>
<td>Publication of the EU Anticorruption Report</td>
</tr>
<tr>
<td>2015</td>
<td>Anti-money laundering directive</td>
</tr>
</tbody>
</table>

EU legislation related to corruption dates from the late 1990s. The Convention on the protection of the EU’s financial interests (also referred to as the PIF Convention) was adopted in 1995 along with its two protocols on corruption and on money laundering offenses (Council of the EU, 1995; Council of the EU, 1996; Council of the EU, 1997). A 1997 Convention against corruption involving EU or EU Member State officials aimed to strengthen judicial cooperation among Member States on corruption involving European and national officials (Official Journal C 195, 25/06/1997). This Convention came into force in 2005.

In 2003, the EU adopted legislation addressing corruption in the private sector (2003/568/JHA), which formed the basis for an EU legal framework in the area. In 2008, the EU acceded to the United Nations Convention on Corruption (UNCAC) (2008/801/EC). That same year, the Council decided (2008/852/JHA) to establish a contact-point network against corruption, which would serve as a forum for exchanging information on measures and experience in the fight against corruption.

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39 From the French *protection des intérêts financiers.*
In 2011, the European Commission, in its communication on the state of play in the fight against corruption in the EU (EC 2011d), announced the creation of an expert group and a biennial EU ACR, intending to provide a hitherto non-existent assessment of EU Member State efforts to combat corruption. The first (and so far only) EU ACR was published in February 2014.

In other recent developments, the Union undertook a revision of public procurement directives (previous measures on public procurement are summarised in Box 5) (EU 2014b; EU 2014c) and adopted a new directive on confiscation of criminal assets (EU 2014d) and on money laundering (EU 2015a).

In 2012 the Commission put forth a proposal for a directive against fraud to the Union’s financial interests by means of criminal law (EC 2012c). These are still under discussion in the final stages of agreement.

In 2014 the EU also adopted Directive 2014/55/EU which aims to facilitate the use of e-invoicing in Europe and is intended to result in the introduction of new rules to extend the use of e-procurement (EU 2014e). It also adopted Directive 2014/23/EU on the award of concession contracts (EU 2014a), which addresses a gap in the regulatory framework by offering a precise definition and coverage for high value works and services concessions. Specific changes in the revised directives of particular relevance to fight against corruption include:

- Stronger measures intended to prevent, identify and remedy conflicts of interest, favouritism and corruption.
- A clearer notion of ‘conflict of interests’.
- Provisions allowing anyone attempting to influence a public purchaser or making false statements to be excluded from public procurement procedures.
- Compulsory exclusion from public procurement procedures in cases where there are abnormally low tenders due to non-compliance with EU law in the field of social and labour law, environmental law, international social and environmental law.

40 A monitoring and assessment mechanism had existed prior to the creation of the EU Anticorruption Report in the case of Bulgaria and Romania, which had been subject to the Cooperation and Verification Mechanism (EC, n.d.-i). However, as noted in EC (2011d), there had been no ‘mechanism in place monitoring the existence, and assessing the effectiveness, of anti-corruption policies at EU and Member State level in a coherent crosscutting manner...’

41 Concessions are partnerships between the public sector and mostly private companies, where the latter exclusively operate, maintain and carry out the development of infrastructure (ports, water distribution, parking garages, toll roads) or provide services of general economic interest (energy, water distribution and waste disposal, for example).

42 While public contracts were already exhaustively regulated in the 2004 Directives, they only partially covered works concessions and completely excluded service concessions. According to an impact assessment carried out by the Commission in advance to the proposal for this directive, the rules and practices of Member States concerning the award of concessions were very different to other types of contracts. Moreover, many EU Member States were found not to have rules on concessions at all (EC 2011b).
The current European legal framework for public procurement in the EU builds on the Directives 2004/17/EC (EU 2004a) and 2004/18/EC (EU 2004b) adopted on 31 March 2004, which were fully transposed by all the Member States by 2010 (EC 2011c). A comprehensive evaluation by the European Commission conducted in 2011 found that the 2004 Public Procurement Directives had contributed to greater openness and transparency, leading to increased competition and savings (EC 2011c). However, it also noted differences in the implementation and application of the directives across Member States and raised some concerns about the efficiency of the EU public procurement regime. In other assessments on the state of play in public procurement, the Commission’s 2012 Annual Public Procurement Implementation Review found e-procurement was used in only five per cent to ten per cent of procurement procedures carried out across the EU (EC 2011a).

### 1.2. EU institutions with relevant powers

#### 1.2.1. European Anti-Fraud Office

The key institution to detect and combat corruption at the EU level, damaging the EU’s financial interests, is OLAF (European Anti-Fraud Office). Established in 1999, OLAF has the authority to investigate two types of cases – internally within EU institutions and bodies (EP and Council of the EU, 1999), and externally in individual Member States (Council of the EU, 1995). Furthermore, OLAF lends support to other EU institutions, notably the European Commission, in the process of policy development. In 2013, the OLAF Regulation was revised to strengthen the institution’s governance, to bolster its rights in both internal and external investigations, and to improve its information exchange with other EU institutions and Member States (EC 2013c).

In addition to OLAF, the fight against corruption at the EU level is supported by a range of other institutions.

#### 1.2.2. European Parliament

The European Parliament plays a role through its oversight powers on the EU budget. The EP can submit formal questions and request clarifications from other EU institutions, particularly the European Commission,43 and exercises financial scrutiny of EU institutions.

Following the Lisbon Treaty, the legislative procedure was amended to incorporate the principle of qualified majority voting and with an increased role for the European Parliament in accordance with Articles 223 to 234 and 314 of the TFEU. Within the EP, responsibility for policies concerning the areas of freedom, security and justice rests with the LIBE committee, whose portfolio includes measures relating to police and judicial cooperation in criminal

43 However, a TI evaluation (2014b) notes that there are no sanctions for non-compliance on the part of those approached by the EP with a request for information.
matters, including terrorism, and substantive and procedural measures relating to the development of a more coherent Union approach to criminal law’ (EP 2015i). However, given the relevance of other policy areas to the fight against corruption (see the discussion of mainstreaming, above) additional standing committees of the Parliament have a role to play in shaping the EU’s response to corruption, such as the Budget Committee (BUDG), Budgetary Control Committee (CONT), Legal Affairs Committee (JURI) and Constitutional Affairs Committee (AFCO).

The European Parliament has contributed to the decision making process, for instance in the form of a resolution with recommendations on action and initiatives to be taken in the areas of organised crime, corruption and money laundering (EP 2013).\footnote{In March 2011, the European Parliament set up a special committee on organised crime, corruption and money laundering (CRIM), which was operational for 18 months. The standing committee covering the relevant areas under Justice and Home Affairs policies is the Committee on Civil Liberties, Justice and Home Affairs (LIBE).}

### 1.2.3. European Court of Auditors, European Ombudsman and Court of Justice of the European Union

All EU institutions are regularly audited by the European Court of Auditors, investigated for maladministration where appropriate and following complaints from the public by the European Ombudsman, and are subject to judicial oversight by the Court of Justice of the European Union (CJEU).

### 1.2.4. Europol and Eurojust

The EU’s law enforcement agencies, Europol and Eurojust also play a role in the detection and investigation of corruption cases at EU level and involving the EU’s financial interests (Council of the EU 2009a). To that end, they have in place cooperation agreements with OLAF and make use of the SIENA (Secure Information Exchange Network Application tool) (Europol, n.d.), run by Europol and intended to facilitate rapid and effective information exchange between European agencies, Member States and relevant third parties.\footnote{We note a revision of Europol’s mandate has recently been agreed (EP 2015c). Reflecting on this development, De Capitani (2015) noted that this revision is not based on any legally-binding framework for police cooperation. Instead, it utilises soft policy tools, including programmatic documents such as the European Internal Security Strategy.} However, several interviewees pointed out that corruption cases represent only a small fraction of the workload of Europol and Eurojust.\footnote{One interviewee noted, however, that in some instances this may be a result of prosecutorial decisions. Given the difficulties with proving corruption, prosecutors may decide to press other types of charges, even though the crime in question involved corrupt behaviour.}

### 1.2.5. European Commission

Moving beyond detection and investigation, the Commission has an important enforcement authority at its disposal. Since December 2014,\footnote{In accordance with Article 10 of Protocol No 36 on Transitional Provisions of the Treaty of Lisbon.} the EC is able to initiate infringement
The Cost of Non-Europe in the area of Organised Crime and Corruption

procedures against Member States for failing to transpose EU measures adopted under the third pillar, i.e. in the area of police and judicial cooperation in criminal matters.48

1.3. EU monitoring mechanisms

The EU manages or supports a set of reporting and monitoring mechanisms, designed to collect information and indicators on the progress in the fight against corruption and to identify areas in need of attention.

1.3.1. EU Anticorruption Report

The EU’s flagship monitoring project is its ACR. Issued first in 2014 and intended to be published biennially thereafter, the report draws on existing data sets to monitor trends and to identify weaknesses. It consists of 28 country-specific reports and a summary report that offers thematic analyses. The first edition in 2014 was supported by a dedicated expert group on corruption convened by the European Commission (EC, n.d.-h) and a network of national correspondents bringing together NGOs and independent advisers, with the aim to minimise the need to rely exclusively on data from national authorities (Pop 2011).49 The preparation of the second iteration of the ACR, scheduled to be published in 2016, is in progress. One of the most important data sets informing the ACR and other publications is a set of surveys administered as part of the Eurobarometer series, referred to in Chapter 1 and 2 of this report.50

1.3.2. Cooperation and Verification Mechanism

Another key monitoring mechanism is the Cooperation and Verification Mechanism (CVM). The mechanism was established following the accession to the EU by Bulgaria and Romania in recognition of the persistence of certain weaknesses in the area of judicial reform, fight against corruption, and in the case of Bulgaria, organised crime (EC, n.d.-b). For each country, the Commission established a set of benchmarks, against which to measure these countries’ progress in each relevant area. These assessments are published in annual progress reports, compiled on the basis of regular expert missions to both countries and the Commission’s observations (EC, n.d.-j). CVM represents a sui generis tool that has been implemented only once in a very specific context. No similar mechanism was established following the accession of Croatia in 2013.51

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48 The EC already had the power to initiate such proceedings with respect to measures adopted after the coming into force of the Lisbon Treaty (EC 2014g).
49 To our knowledge, there is no academic review of the EU Anticorruption Report. Identified literature frequently mentions the report and its findings but does not offer an assessment of the tool itself.
50 In addition to developing and managing its own monitoring mechanisms, the EU has also supported a range of other research projects intended to shed further light on the extent and nature of corruption in the EU. The largest of these is ANTICORRP, a research project supported by €8m from the EC’s Seventh Framework Programme. Running from 2012 to 2017, the project aims ‘to advance knowledge on how corruption can be curbed in Europe and elsewhere.’
51 According to Pech (2015), political considerations may have influenced the decision not to introduce CVM for Croatia following the country’s accession, since submitting Croatia to the CVM would have sent the signal that another country was joining the EU after appearing ‘to lack a functional rule of law system when its accession treaty was signed.’ This observation is echoed in Palokaj (2010), who quoted an EU official as saying ‘we want Croatia to be a good example after the less good examples of Bulgaria and Romania.’ For a similar narrative, see Riley (2013).
1.3.3. EU Justice Scoreboard

A third monitoring mechanism conducted by the European Commission is the EU Justice Scoreboard. (EC, n.d.-d) The scoreboard is an annual assessment of Member States’ justice systems along three types of parameters that are understood to define the effectiveness of a given judicial system: a) efficiency, b) quality, and c) independence. In developing the scorecard, particularly in the areas of efficiency and quality, the EC built primarily on work done by the CoE’s Commission for the Efficiency of Justice (CEPEJ).52 Additional sources used to develop the Scoreboard include the World Bank, business reports and a network of councils for the judiciary (who particularly provide input in relation to judicial independence).53 Since effective justice systems are seen as an integral part of economic development, the results of the scoreboard feed into the European Semester of Economic Governance, a coordinating mechanism for economic policy within the EU, where a set of country-specific recommendations are formulated.54

1.3.4. Other monitoring and research

In addition to the work discussed above, there is a range of other ongoing research projects that may contribute to the strengthening of monitoring and reporting systems, for instance by developing new and better indicators of corruption. Relevant initiatives in this field include ANTICORRP, FRA’s project on fundamental rights indicators (FRA, n.d.-b), and work done by the Government Transparency Institute (Government Transparency Institute, (n.d.)) and the Anti-Corruption Resource Centre (U4) (U4 Anti-Corruption Resource Centre, n.d.). A comprehensive resource in this effort is the UNDP 2015 guide on User’s Guide to Measuring Corruption and Anti-corruption (UNDP 2008).

One interviewee also mentioned a compendium of good practice in the field of anticorruption, prepared by University of Utrecht (2008) and suggested sponsoring the development of a new iteration, which may form the basis of an updateable catalogue of evidence and effectiveness data.

1.4. Non-EU law and institutions

The fight against corruption in the EU is also carried out through the efforts of other international organisations. Three stand out in particular and are discussed in greater detail: the Council of Europe, the OECD and the UN. The fight against corruption undertaken by each of these organisations builds on their own legislative framework and has in place accompanying monitoring systems.

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52 CEPEJ stands for The European Commission for the Efficiency of Justice. For more information, see (CoE, n.d.-d).
53 Councils for the judiciary are independent bodies that support and manage the administration of justice in a given country and are present in 20 Member States. In the remaining eight countries, the Justice Scoreboard works with national supreme courts to collect necessary data.
54 Correspondingly, the need for structural reforms in the area of justice has been listed as an objective in the EU’s Annual Growth Surveys. See, for instance, the 2015 edition (EC 2014b) or the 2016 edition (EC 2015a).
1.4.1. The Council of Europe and GRECO

The Council of Europe has produced a suite of instruments intended to contribute to the fight against corruption in the EU. These include:

- Resolution (97) 24 on the twenty guiding principles for the fight against corruption (1997).

In addition, the Council of Europe hosts the Group of States against Corruption (GRECO), which oversees members’ compliance with existing CoE anti-corruption standards. The overarching objective of GRECO’s work is to generate pressure on its Member States to improve their fight against corruption. The mechanism to do so is through the identification of gaps in national policies and through the promotion of adequate reforms. GRECO’s work is organised in thematic evaluation rounds (four conducted so far). Each round consists of self-assessments conducted by the country being evaluated, monitoring visits by experts representing other countries, and discussions with relevant country representatives. Based on the data collected, a final evaluation report is developed, which includes an assessment of the national compliance with GRECO’s standards and a set of recommendations for future action to improve the level of compliance. The uptake of recommendations by individual countries is monitored in subsequent compliance reports (up to two envisaged per country per evaluation round).

1.4.2. OECD

In the area of international business, the OECD Convention on Combatting Bribery of Foreign Officials in International Business Transactions established international standards with respect to the bribery of foreign public officials (OECD, n.d.-b). Its implementation is monitored by the OECD Working Group on Bribery, which has developed a peer-review mechanism undertaken by experts from the member countries. This mechanism has so far consisted of three phases.

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55 The four rounds covered the following topics: independence, specialisation and means available to national bodies engaged in the prevention and fight against corruption, extent and scope of immunities (Round 1), identification, seizure and confiscation of corruption proceeds, public administration and corruption (auditing systems; conflicts of interest), prevention of legal persons being used as shields for corruption, tax and financial legislation to counter corruption, links between corruption, organised crime and money laundering (Round 2), instructions provided for in the Criminal Law Convention on Corruption (ETS 173), its Additional Protocol (ETS 191) and Guiding Principle 2 (GPC 2), transparency of Party Funding with reference to the Recommendation of the Committee of Ministers to Member States on common rules against corruption in the funding of political parties and electoral campaigns (Rec (2003) 4) (Round 3), ethical principles and rules of conduct, conflict of interest, prohibition or restriction of certain activities, declaration of assets, income, liabilities and interests, enforcement of the rules regarding conflicts of interest, awareness (Round 4).

56 As per GRECO’s Rules of Procedure (CoE, 2011).
In the first phase, the focus is on the adequacy of national legislation to implement the aforementioned Convention. The second phase assesses the extent to which this legislation is implemented effectively. In the third phase, countries are evaluated on their enforcement of the Convention and on any outstanding recommendations from previous phases. A fourth phase is envisaged by the OECD and is currently in the process of being developed.

In addition to its review mechanism, the OECD has produced a set of soft law measures intended to strengthen integrity in the public sector. These include, among others, disallowing the tax deduction of bribes to foreign public officials and measures to strengthen public sector integrity by providing principles and guidelines for areas such as public procurement and lobbying (Anagnostou and Psychogiopoulou 2014).

1.4.3. UN

The United Nations adopted in 2003 the aforementioned UN Convention on Corruption (UN General Assembly Resolution 58/4 of 31 October 2003), which entered into force in 2005 and includes a set of standards, rules and measures to be applied by signatory parties (UNODC 2004). Appendix F shows that all Member States have ratified the UNCAC. The UNCAC also includes a review mechanism, intended to assess the progress in its implementation. As with the CoE and OECD reviews discussed above, UNCAC’s mechanism, managed by the Implementation Review Group, is conducted on a peer review basis, albeit a lighter touch review than the others largely conducted on paper. First, the country under evaluation produces a self-assessment report, which is reviewed by experts from two other participating countries. At this stage, there may be a supplementary country visit by the reviewers. A final report is prepared by the reviewers with input and agreement from the country under evaluation (UNODC 2011).

1.4.4. Other actors

In addition to the mechanisms described above, the G20 has an anti-corruption working group, established in 2010, which provides another important framework to discuss corruption and integrity issues at the global (developed country) level. Its current activities are guided by an Action Plan (G20 Australia 2014a), accompanied by a detailed Implementation Plan (G20 Australia 2014b). The current areas of focus include beneficial ownership transparency, public sector transparency and integrity, private sector transparency and integrity, bribery, international cooperation, and vulnerable sectors such as customs, extractives, fisheries and primary forestry and construction.

In addition to the monitoring and activities mentioned earlier in this chapter, academics, researchers and NGOs (such as Transparency International and Global Witness, and the International Consortium of Investigative Journalists) are very active in the field of corruption, reporting on various aspects of the phenomenon of corruption. While not always of a similar standing and systematic character, these activities need to be considered as part of the overall existing framework of corruption monitoring in the EU.

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57 This process is organised in five-year cycles, each focusing on two of the Convention’s four substantive chapters (Transparency International, 2013).
2. Effectiveness assessment

This section provides an assessment of the strengths and weaknesses of the measures described in Chapter 3, Section 1 – i.e. an assessment of effectiveness. Building on discussions in sources such as the EU ACR (EC 2014h) or the abovementioned systematic review by Hanna et al. (2010), we consider policies and measures effective if there is evidence of their ability to reduce the level of corruption (or the perception thereof) or to reduce the opportunity for corruption.

As mentioned in Chapter 1, there is a lack of evidence on the degree of effectiveness of individual anticorruption measures and almost no evidence of their quantified impact on corruption levels. This is perhaps not surprising, given the multifaceted character of the corruption challenge and the importance of contextual factors.58

We have incorporated available information, to the extent possible, in our quantitative analyses (as presented below) but reiterate that the existing evidence base provides at best an indication of possible effects and their sizes, let alone any guidance on prioritisation. As with other parts of this research paper, the assessment of effectiveness in this chapter is based upon a review of literature and interviews.

2.1. The effectiveness of the EU legislative framework and policy measures, and of non-EU law

The discussion below is structured in themes that can be understood as barriers to greater effectiveness of anti-corruption measures. These themes have been identified by the research team from an analysis of findings from the literature review and interviews. As such, rather than passing a judgment on individual measures, this section provides a consideration of the effectiveness across the existing anti-corruption portfolio. This reflects recognition of the multifaceted character of corruption, the importance of context and the dearth of evidence with individual anti-corruption measures as the unit of analysis.

2.1.1. In some instances, EU and other legislation has not been formally transposed by Member States

One of the fundamental obstacles to effectiveness of EU action in relation to corruption is the lack of formal ratification or proper implementation of existing legislation by Member States:

- The 2003 Framework Decision. In its second implementation report the Commission noted that the quality of transposition was uneven across Member States and in some cases incomplete, with some articles having been transposed correctly only by a minority of Member States (COM(2011)309). Appendix F indicates which Member States have transposed the Framework Decision.

58 We note some exceptions to the rule, such as QoG’s work on corruption covariates (Rothstein and Holmberg 2011), similar findings on correlations done by ANTICORRP (Mungiu-Pippidi 2013); calculations and assumptions in the impact assessment of the EPPO (EC 2011c); and attempts at quantifying the impact of whistleblower protection by Santoro et al. (2014).
- **The CoE’s Conventions**: Germany has not ratified the CoE’s Criminal Law Convention (CoE, n.d.-a). 59 Four Member States have not ratified its Additional Protocol. 60 The Civil Law Convention still awaits ratification in six Member States. 61
  - **The OECD Anti-Bribery Convention**: This has not been ratified by five EU Member States (none of the non-ratifying Member State is a member of the OECD). 62

2.1.2. Some provisions of international legislation are optional or reserved

A related barrier to effectiveness, mentioned in interviews and in the literature, is where a legislative instrument is in place but at least some of its provisions are not binding. This limits the contribution of these instruments to the fight against corruption in EU Member States. This particularly relates to the UNCAC and the CoE Criminal Law Convention:

- **The UNCAC**: Babu (2006) notes that individual provisions of the Convention vary in the degree to which they are binding. While some obligations are mandatory and require signatories to undertake legislative action, the implementation of other provisions remains at the discretion of individual countries.

- **The CoE’s Criminal Law Convention**: Anagnostou and Psychogiopoulou (2014) point out that this is subject to reservations from its Member States (this option is not allowed under the Civil Convention). This may place some limits on the effectiveness of the Convention (although the Committee of Ministers has appealed to the Member States to use their reservation rights as sparingly as possible).

2.1.3. It is too early to determine the effectiveness of recent EU legislation, for example, in relation to public procurement

As discussed above, a recent legislative development is the adoption of a set of new public procurement directives. The ‘Sector Directive’ (2004/17/EC) and the ‘Classical Directive’ (2004/18/EC) on public procurement will remain in force until 17 April 2016. Member States have until April 2016 to transpose the new directives into their national law. 63 As such, it is impossible to assess the effectiveness of the new directives since their implementation is still in progress.

The enforcement and the effective application of the new rules will be subject to dedicated monitoring mechanisms 64

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59 We note that the recently enacted German law against corruption paved the way towards eventual ratification of the Convention (Behr 2015).
60 Czech Republic, Estonia, Germany, Italy (CoE, n.d.-c).
61 Denmark, Germany, Ireland, Luxembourg, Portugal, United Kingdom (CoE, n.d.-b).
62 Croatia, Cyprus, Lithuania, Malta, Romania (OECD 2014a).
63 One exception is the application of provisions on e-submission, which can be postponed until October 2018.
64 MS will have to report on public procurement activity and they will be obliged to submit to the Commission every three years a monitoring report covering information on the efficacy and uniform application of the new directives. See, for instance, Article 83 on Governance of the Directive 2014/24/EU (EU 2014b).
In addition, available literature, and one interviewee, highlighted the role of exclusion of economic operators (debarment) from public procurement processes on the basis of their previous criminal convictions. The current rules of debarment stem from provisions in the 2004 public procurement directive and have been transposed into the legislation of all Member States. The relevant 2014 public procurement directive (2014/24/EU), now under implementation by Member States, introduced two modifications to the rules, making them somewhat less rigid. First, the exclusion period was limited to five years. Second, black-listed companies are given a chance to terminate the exclusion if they can demonstrate the completion of a ‘self-cleaning’ procedure (Manacorda and Grasso 2014; Linklaters 2014). Examples of actions that may be considered sufficient in this regard include appropriate staff reorganisation measures or the implementation of an internal audit structure. However, Corruption Watch UK (2015) suggested that these ‘self-cleaning’ provisions may be difficult to implement in a coherent manner since procurement officials, being neither compliance specialists nor enforcement officers, might not have the necessary expertise (Corruption Watch UK 2015). As such, they may represent a mechanism through which companies will be ‘let off the hook’ (Hawley 2015). With respect to the situation at the EU institutions, debarment provisions are implemented on the basis of the EU’s current Financial Regulation (EU 2015b). Accordingly, information on operators excluded by the EU is kept in the Early Detection and Exclusion System (EDES) (EC, n.d.-f).

2.1.4. There is evidence of variability in prevention, control and regulation mechanisms within Member States

The area of prevention and control mechanisms is addressed by several CoE documents:

- The Criminal Law Convention imposes obligations on signatories to adopt necessary dissuasive mechanisms.
- CoE’s twenty guiding principles ‘invite’ individual countries to introduce prevention and control measures in their legislation.
- Member States have been provided guidance in the form of CoE’s recommendation on common rules against corruption in the funding of political parties and electoral campaign (CoE 2003).
- Preventative anti-corruption practices are also addressed in UNCAC.

Prevention measures. When assessing the situation in EU Member States, the EU Anticorruption Report found variability across individual countries. For example, some countries were found

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65 Article 45 of Directive 2004/18/EC. Crimes constituting the basis for a mandatory debarment include participation in a criminal organisation, corruption, certain types of fraud, and money laundering. In addition, the directive lays out conditions for discretionary debarment, such as the state of bankruptcy, conviction of grave professional misconduct, etc.
66 As Hawley (2015) summed the situation up, the new directives are ‘proportionate and allow for rehabilitation.’
68 In particular Articles 106 and 108.
69 See, in particular, Art 1, 4, 5, and 17.
70 See, in particular, Art 5.
to have implemented effective prevention measures, while in others this effort remains ‘fragmented.’\(^{71}\)

**Politicians, political financing and public officials.** The ACR found anti-corruption policies appear to be prominent in the political discourse in the majority of EU Member States.\(^{72}\) In addition, most Member States have introduced legislation to create higher transparency standards (compared to previous rules in the country) on political financing. At the same time, elected bodies and political parties have only infrequently introduced codes of conduct, and even where these codes do exist, they are not accompanied by effective monitoring and sanction regimes. The requirements for public officials to disclose their assets were found to have generally been strengthened across the EU, but substantial differences exist across Member States with respect to the regulatory regime surrounding conflict of interests.\(^{73}\)

**Non-regulation of lobbying** was a gap in existing practice identified in the country reports and frequently mentioned by interviewees. Civil society organisations, such as Transparency International have pushed for more transparency and accountability in relation to lobbying of the national parliaments (Transparency International 2009). According to the country reports prepared as part of the Anticorruption report, 22 Member States\(^{74}\) did not have a mandatory list of registered lobby groups, whether it is business, companies, NGOs, or think tanks. In some of these countries, however, a register exists on a voluntary basis or the national parliament introduced a Code of Ethics.\(^{75}\) According to a 2015 TI report based on an examination of 19 Member States, lobbying is regulated by a dedicated law in seven Member States.\(^{76}\)

2.1.5. **The effectiveness of EU action is dependent upon skills, capabilities and capacities within Member States**

As shown in Appendix F, most, but not all Member States have a national anti-corruption strategy. Countries differ in the extent to which tackling corruption is a national priority and in respect of the intuitional arrangements for addressing the problem.

**National specialist anti-corruption agencies.** As part of their fight against corruption, some countries have introduced specialised central anti-corruption agencies (e.g. the Federal Bureau of Anti-Corruption in Austria, the Central Service for Prevention of Corruption in France, and the Central Anti-Corruption Bureau in Poland), in line with the requirement in the UN Convention\(^{77}\) and one of the CoE’s twenty principles.\(^{78}\) In some instances these agencies have

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\(^{71}\) However, in this context ‘effective’ is more akin to ‘having some observable effect’ rather than demonstrated to be effective through rigorous policy evaluations.

\(^{72}\) COM(2014)38

\(^{73}\) COM(2014)38

\(^{74}\) The countries are the following: Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Italy, Latvia, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Spain and Sweden.

\(^{75}\) For instance, Germany and the Netherlands introduced a voluntary register, but this is not regulated by law. Ireland introduced a Lobbying Regulation bill which made it mandatory to register lobbying activities and made the information available to the public. However, it fell short in its focus on responsibilities of lobbyists and, to a lesser extent, with respect to those of public officials (EC 2014d).

\(^{76}\) These are Austria, France, Ireland, Lithuania, Poland, Slovenia and the United Kingdom. TI (2015) Lobbying in Europe: Hidden influence, privileged access (Transparency International 2015b).

\(^{77}\) Article 6.

\(^{78}\) Article 7.
led to notable and sustainable results, while in other cases the results were more mixed, suggesting that the establishment of dedicated agencies is not a silver bullet in the fight against corruption (COM(2014)38). An interviewee observed that anticorruption agencies might represent a good example of the tension between the formal existence of anti-corruption tools and their effectiveness, in particular in instances where control over anti-corruption agencies has been politicised and their work diverted to further domestic political goals. The interviewee added that this risk was mainly relevant for current and recent candidate countries.

**Challenges related to the independence of law enforcement and prosecution agencies** charged with responding to corruption have also been raised in some Member States, though it is not always obvious what would constitute sufficient resources compared with other social objectives (Lord and Levi 2015). In some Member States, anti-corruption efforts are reported to be hampered by insufficient capacity and/or determination of the judicial system to address some corruption cases. As with other topics discussed in this section, obligations and recommendations in this area have also been formulated in existing international instruments, such as CoE’s twenty guiding principles (Article 3) and the UNCAC (Chapter III).

**Insufficient administrative capacity**, and the associated gaps in the implementation of anti-corruption measures, at least in the context of some newer Member States, may be a reflection of the challenges faced in improving their administrative capabilities. For instance, as OECD’s 2009 SIGMA (Support for Improvement in Governance and Management) report noted, civil service reforms undertaken in CEE countries in preparation for their accession to the EU have been stalled or reversed in the majority of the countries after they joined the EU (Meyer-Sahling 2009). This is in line with an observation made by several interviewees that the EU loses a substantial amount of leverage vis-à-vis individual countries at the moment of a country’s accession. The same sentiment was expressed by Commissioner Viviane Reding, who, in the context of rule of law stressed the existence of a ‘Copenhagen dilemma’:

‘We face a Copenhagen dilemma. We are very strict on the Copenhagen criteria, notably on the rule of law in the accession process of a new Member State but, once this Member State has joined the European Union, we appear not to have any instrument to see whether the rule of law and the independence of the judiciary still command respect.’ (Council of the EU 2012)

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79 This observation is also made by ANTICORRP researchers, who observed that countries with special anti-corruption agencies do not appear to fare significantly better than countries which address corruption via their normal legal system (Mungiu-Pippidi 2013). However, there may be some value in having a dedicated anti-corruption body even if it is not particularly effective, such as symbolic reassurance and bolstering of the state’s legitimacy in the fight against corruption.

80 The abovementioned CEPEJ reports and the EU Justice Scoreboard are comprehensive sources of broadly comparable data on relevant indicators in this area.

81 However, as a possible response to this dilemma, please see discussion of measures to protect rule of law available to the EU in section 3-III-1.
2.1.6. The effectiveness of the fight against corruption might be reduced by gaps in EU law

Gaps in current EU law were identified in the available literature and by interviewees.

**Definition of public official**

The EU ACR noted that there is no harmonised definition of ‘public official’ at the EU level that would include people holding an elective office. One interviewee suggested that the underlying barrier is different definitions and understanding of a *public official* across Member State.82 These range from a narrow definition of people who only work in the government to a second approach including everyone starting at local level up to the government and works in a public administration, as well as MPs and MEPs. According to the interviewee, the consequence of this inability to come up with a unified definition is the abovementioned absence of a comprehensive EU instrument on corruption in the public sector (to complement the existing framework decision covering the private sector).83

As further discussed in Section III, below, a definition of a public official is included in the draft text for a new Fraud Directive (also referred to as PIF-Directive).

**Protection for whistleblowers**

Another gap in EU legislation highlighted by interviewees is the absence of an EU instrument on the protection of whistleblowers. Protection for such individuals is internationally recognised as essential to fight corruption84 and is already featured in a number of international instruments (see Box 6).

**Box 6: Calls for the protection of whistleblowers from the EU, UN, OECD and CoE**

- The UNCAC requests that Member States consider whistleblower protections in their domestic legal systems.85
- A similar recommendation to introduce whistleblower protection measures is made in OECD’s 1997 Convention on Combating Bribery of Foreign Public Officials and in CoE’s Twenty Guiding Principles for the Fight Against Corruption and Civil Law Convention on Corruption.86

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82 A recent case demonstrated the persistent lacking of a global agreement on the definition of ‘public officials’. Germany did not ratify UNCAC due to its ‘parliamentarians’ reluctance to relinquish rights under legislation on bribery of members of parliament until September 2014.’ Under the UN convention, Members of Parliament are considered public officials (Transparency International 2014a).

83 In this context, however, we reiterate the lack of legal basis for an EU-led establishment of common corruption standards across Member States.

84 For instance, among the first instruments on whistleblowing were the OECD Recommendation on Improving Ethical Conduct in the Public Service in 1998 including the Principles for Managing Ethics in the Public Service (OECD, 1998) and the OECD Recommendation on Guidelines for Managing conflict of Interest in the Public service of 2003 (OECD 2003).

85 UNCAC, Article 33

86 Article 9 of the Convention states that ‘Each Party shall provide in its internal law for appropriate protection against any unjustified sanction for employees who have reasonable grounds to suspect corruption and who report in good faith their suspicion to responsible persons or authorities.’ However, as Stephenson and Levi (2012) noted, this is a rather ‘loose’ provision, since it remains ambiguous with
Despite the existence of these instruments, whistleblower protection in EU Member States remains patchy.\textsuperscript{87} While whistleblower legislation exists in some Member State, this type of protection is not widely available across the EU.\textsuperscript{88}

Insufficient provisions for the protection of whistleblowers have also been noted with respect to corruption in European institutions. A 2011 study on the effectiveness of whistleblowers conducted by PwC and i-Force (2011) found that current whistleblowing rules were not effective for two reasons. First, the rules were unclear and too narrow in scope and second, their implementation had suffered from a series of deficiencies.\textsuperscript{89} These observations are in line with the findings in Transparency International’s Integrity System Report, which observed that, with the exception of the European Commission, no EU institution has in place a set of guidelines and procedures to protect whistleblowers, despite the existence of EU Staff Regulations requiring such procedures be put in place (Transparency International 2015a).\textsuperscript{90} As the TI Integrity System Report noted, this is particularly noteworthy in the case of review and oversight bodies such as OLAF and ECA (Transparency International 2014b).

The TI report was followed by an inquiry led by the European Ombudsman, which found that only two of the nine institutions covered\textsuperscript{91} ‘adopted rules of the kind required’ (European

\textsuperscript{87} For an overview of existing whistleblower legislation at the national level, see (European Univercity Institute, n.d.).
\textsuperscript{88} The need for an effective whistleblower protection system was recently acknowledged by some MEPs in the aftermath of the LuxLeaks scandal, in which the principal whistleblower was indicted for disclosing information on tax avoidance schemes in Luxembourg (EP 2015e).
\textsuperscript{89} These included a lack of integrated organisational approaches, the absence of an independent helpdesk, insufficient independence of OLAF (or at least perception thereof), and a lack of a working system for tracing disclosures.
\textsuperscript{90} In addition, an earlier 2006 study found that the scope of Staff Regulations (notably its Articles 22a and 22b) covered only a part of what may typically fall under the category of whistleblowing. The report also found that the regulations are of limited effect ‘in promoting desirable behaviour both on the management side as well as on the staff side’ due to the fact that they only promise that EU Institutions will not react negatively to a report made by a staff member (Rohde-Liebenau 2006).
\textsuperscript{91} These were the European Parliament, the European Commission, the Council of the European Union, the Court of Justice of the European Union, the European Court of Auditors, the European External Action
Ombudsman 2014). The lack of systematic whistleblower protection was also noted in the EP’s draft report on Transparency, accountability and integrity in the EU institutions\(^2\) and by several interviewees, who called for stronger action by the EU in the area (EP 2015k).

Protection of whistleblowers was also mentioned by interviewees as a desirable step in connection with public procurement. The same observation was made by Anagnostou and Psychogiopoulou (2014), who noted that ‘local and regional governments in CESE countries are particularly problematic in this respect, as they appear to be the weakest performers in the field of whistleblowers’ protection. Even when mechanisms are in place, citizens do not seem to trust them.’

In the view of the interviewees, an EU-level instrument may be a suitable way to address this situation.\(^3\) The absence of an EU-wide instrument on whistleblowing is also noted by Santoro et al. (2014), who as part of their work for the Restarting the Future initiative called for the adoption of an EU directive on whistleblowing, followed by the establishment of a European Authority for Whistle-blowing.\(^4\) This is discussed further in Chapter 3 Section III.

### 2.2. The effectiveness of existing monitoring mechanisms

#### 2.2.1. EU Anticorruption Report

At the time of writing there has not been a follow-up assessment of the extent to which Member States have acted on these recommendations. Some follow-up on progress is envisioned for the next iteration of the report, though not based on formal review mechanisms such as those put in place by GRECO or UNCAC. This section is based on the views of interviewees and expressed in the literature.

**Elements perceived to have been effective**

The ACR has raised the profile of the fight against corruption: Interviewed experts unanimously recognised the importance of ACR and its high profile as a flagship monitoring project of the EU. One interviewee saw the report as a demonstration of the EC’s effort to elevate the profile of the fight against corruption and help integrate it into other EU policies. Another interviewee felt that it would take some time for the report to gain visibility because it is a relatively new process.

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\(^3\) As another example of a gap in EU legislation, another interviewee noted that the 2003 Framework Decision does not cover civil confiscation, a procedure that has been introduced in a number of MS. This issue is covered in the cost of non-Europe paper on organised crime.

\(^4\) Restarting the Future is a public campaign led by civil society organisations and enjoys the support of 69 MEFs from six political groups. For more information see (Restarting The Future, n.d.).
The ACR brings together a range of indicators relevant to corruption: The report’s ability to draw on disparate data sources and bring together available relevant data was valued by interviewees.

The ACR produces tailored country reports: Interviewees noted the fact that the report identifies the most problematic areas and produces recommendations for individual Member States on how to proceed. One interviewee highlighted the fact that the ACR reflects the varying needs of individual countries by producing country-specific reports that focus on the most pertinent issues for the country in question. The expert noted that it would have been easier to produce a uniform matrix-style information product, but felt that such a product would have been of very limited use. While this approach to organising the document was difficult to communicate to individual Member States, it was ultimately accepted and the fact that this discussion is now settled has laid the foundation for a regular useful product going forwards.

The ACR is complemented by the anti-corruption experience-sharing programme: An additional important product of the ACR, highlighted by two interviewees, was the establishment of the anti-corruption experience-sharing programme, intended to serve as a platform for interested parties and stakeholders to discuss how to best address challenges identified in the ACR. So far, there have been three workshops organised in the framework of the programme, covering the areas of asset declaration, whistleblowing and healthcare corruption.

Elements perceived to be barriers or limitations

The ACR includes little new data: One interviewee pointed out that since the ACR draws heavily on work conducted by others (though it does include some original data collection), it may face an ongoing challenge in demonstrating its added value and usefulness. This is related to the point about risks of duplication mentioned before in section 3-II-1. However, the interviewee felt that the biggest added value of the ACR may be its profile-raising effects mentioned above, i.e. putting anti-corruption policy on the agenda and creating opportunities for exchanging ideas and policy integration. Even if the EC is criticised for compiling existing evidence rather than conducting new analysis, it acts as a focal point for reform.

There is no formal assessment procedure: While some follow-up on country-specific recommendations is envisaged for its next iteration, no formal assessment procedure, for instance akin to GRECO’s evaluations, has been established within the framework of the EU ACR. With respect to recommendations, a TI assessment of the ACR lamented the lack of

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95 At the same time, comparisons can be made with GRECO’s evaluations, which are standardised and follow a predetermined agenda. One interviewee noted the GRECO’s systematic approach is well received by the Member States. A standardised structure may be one way to avoid pushback from countries under evaluation, who may be concerned about differential treatment.

96 Admittedly, the format of the report can be understood to be a barrier in so far as it places limits on comparability across Member States.

97 The event has the benefit of bringing together a diverse range of stakeholders with different perspectives and experiences on the issue of corruption, reflecting its horizontal and cross-cutting character. Using the workshop on whistleblowing as an example, the sessions brought together anti-corruption experts, and representatives of NGOs and public authorities, including criminal justice stakeholders (police officers, prosecutors) and relevant national ministries (labour, finance, justice and interior). Outputs from each workshop are available online (EC, n.d.-a).
specific recommendations on the protection of whistleblowers, access to information and lobbying. In addition, TI noted the absence of attention to the cross-border dimension of corruption (Dolan 2014).

**Corruption at the EU level does not fall within the scope of the ACR.** Therefore, at least from the perspective of the EU and its report, monitoring and assessment procedures with respect to corruption at the EU level are weaker than their counterparts pertaining to the situation in the Member States. In an effort to remedy this gap, Transparency International prepared a review of corruption and integrity risks in the EU institutions and pertaining to the EU’s budget in its 2014 EU Integrity System Report (Transparency International 2014b). This report contains an assessment of ten EU institutions and agencies (EP, European Council, Council of the EU, EC, CJEU, ECA, OLAF, Europol and Eurojust, and Ombudsman) and represents, to our knowledge, the most comprehensive independent report on corruption at the EU level to date. The EU and its institutions are subject to external review through its membership in UNCAC; however, such a review has not been completed yet. A similar scrutiny would also be applied to the EU and its institutions should it accede to GRECO (as discussed in Section III of this chapter).

### 2.2.2. CVM

**Elements perceived to have been effective**

The CVM has been an important lever to push for reform: Available academic literature widely acknowledges the role of the CVM, while taking note of its limitations. For instance, Vachudova and Spendzharova (2012) found the CVM to be ‘indispensable in pressuring the Bulgarian and Romanian governments to adopt and implement key institutional reforms.’ The Romanian Institute for Public Policy (2010) credited EU monitoring mechanisms, starting with pre-accession progress reports, with establishing and elevating the fight against corruption on the domestic political agenda.

**CVM is a capacity-building tool:** One interviewee noted the CVM can be seen as a capacity building tool. For instance, with the help of annual progress reports, in the view of the interviewee, the judicial system (mainly judges and prosecutors) became more self-confident about their rights to become a driver of the fight against corruption. This capacity building and mobilisation aspect of CVM has been examined also in relation to civil society actors in Bulgaria and Romania. Dimitrova and Bugozany (2014) found that the CVM served as a point of reference for the activities of civil society organisations and the media. This contribution has also been recognised by Ivanova (2009) and Vachudova and Spendzharova (2012).

**CVM is integrated in wider reforms:** Interviewees felt that the CVM has had a much bigger impact than the ACR, which might be expected given the difference in the size of the projects and how long they have been in place. One possible contributing factor to the achievements of the CVM in the area of corruption, stressed by one interviewee, was the fact that it has been integrated into a wider reform process (governance, civil society formation).

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98 Although we note that a separate chapter covering the EU level was originally envisaged and drafted (EC 2013d).
CVM receives support from domestic authorities: Interviewee felt that the CVM has had very good buy-in from official authorities who identified themselves with the reform and wanted to be seen in Brussels as doing a good job. Similarly, authors such as Vachudova and Spendzharova (2012) and Dimitrova (2014) observed that domestic political considerations were often an important enabler of progress and a source of incentives, in particular for political parties and representatives who presented themselves as pro-European.99

CVM reports are evidenced-based and detailed: The CVM annual reports have been described as highly technical, granular and well documented (Vachudova & Spendzharova 2012). One interviewee observed that the reports did not elicit any objections and were accepted by national authorities because they were well-evidenced and argued. Similarly, Pech (2015) commended the mechanism for establishing well-defined and easily observable progress indicators.

On the whole, interviewees agreed that the two countries covered by the CVM have made notable progress while covered under the mechanism and one interviewee felt strongly that the CVM has had a very positive effect on the situation in both countries, even if to a different extent.100

Elements perceived to be barriers of limitations

Evidence of actual change is mixed: Dimitrova (2015), while acknowledging the CVM’s achievements in terms of improving government actions and laws, notes that with respect to actual behavioural change, the CVM’s record is rather mixed and remains subject to debate. At the opposite end of the assessment spectrum, studies (Dimitrov et al. 2014; Dimitrov, Haralampiev & Georgieva 2014) found the CVM to be largely ineffective. This conclusion was based on an observation that while the EU monitoring focused excessively on formal legislative change, it failed to generate change at the societal level.101

CVM might not be a transferable anti-corruption mechanism: Interviewees commented on the effectiveness of the CVM with the caveat that it is a very specific tool intended for a very specific context (and therefore might not be a transferable approach to other Member States).

CVM has been technical and costly to implement: One interviewee stressed that the CVM has been a very costly mechanism and has required many skilled individuals to process large amounts of data. This is not necessarily a criticism of the mechanism itself but rather an acknowledgement that its replication or adaptation would require substantial investment.

99 However, taking a forward looking perspective, whether this desire to impress will be sustained to the extent that there is more scepticism about the EU remains to be seen.
100 At the same time, interviewees pointed out that the very existence of the mechanism can be seen as a failure since it recognises the fact that Bulgaria and Romania were admitted to the EU prematurely. In the view of one interviewee, this is particularly notable since the prospect of admission is one of the strongest levers the EU has vis-à-vis corruption in third countries. Once new countries are admitted, the strength of this lever is much weakened. Vachudova and Spendzharova (2012) also note the difference in the leverage available to the EU pre- and post-accession. However, this is not meant as a criticism of the tool itself but rather of the need for such tool in the first place.
101 In a similar vein, for an at best mixed view of the CVM’s effectiveness in fostering democratic institutions and rule of law, see Sedelmeier (2014). Still, the author notes some notable achievements and contributions of the tool, such as work to stop the referendum to impeach President Basescu in Romania in 2012.
A risk that CVM might reduce need for internal controls: The same expert who noted the cost of the CVM also wondered whether the mechanism inhibited, to some extent, the development of effective internal control mechanisms by the two participating countries. These Member States may have felt less need to work on further developing their own control systems given the knowledge that the CVM would perform this function.

CVM does not have strong sanctions: An interviewee pointed out that the sanctions in the mechanism were weak, thereby limiting enforcement options on the part of the EU. A similar observation about the limited enforcement options has been made by several academic authors. Carrera et al. (2013) noted that the CVM represents a soft-policy non-legally binding tool and Alegre et al. (2009) found the CVM ‘a relatively weak implement with limited powers to press states into reform’. At the same time, studies such as those conducted by Dimitrova (2015) and Gateva (2010) observed that the CVM developed over time elements of conditionality, which could be understood as a form of ‘hard’ sanctions. Two modalities of this conditionality stand out in particular:

- Following a report that found substantial deficiencies in the management of EU funds, the EU decided to freeze several funding streams available to Bulgaria (EC 2008b).102
- In 2011 the two countries’ progress (or lack thereof) in the fight against corruption and organised crime, as reported in CVM reports, was linked with their Schengen accession, preventing the countries from joining the border-free agreement (Vachudova and Shpendzharova 2012).

2.2.3. Justice scoreboard

Elements perceived to have been effective

Data in the scoreboard is independent and validated: In the opinion of one interviewee, one of the strengths of the scoreboard is the fact that the data informing the Scoreboard is largely validated through prior data collection exercises and therefore is not subject to any challenges at the point at which the scoreboard is published. Additionally, the preparation of the tool is not reliant on Member State political authorities and relies instead on alternative sources, including a network of independent experts at the country-level.

The Scoreboard is integrated into the European Semester of Economic Governance: Another feature of the scoreboard highlighted by an interviewee is its integration into the European Semester of Economic Governance. That way, the scoreboard enjoys access to a mechanism through which country-specific recommendations are made and follow-up assessments conducted, thereby creating a cycle of continued progress monitoring.103 This coordination takes a procedural form as well – the publication of the scoreboard’s findings is scheduled to coincide with the release of country specific reports in the European Semester.

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102 The funds were unfrozen following a positive 2010 CVM report. Dimitrova (2015) points out that this option is available even in contexts without the CVM as the Commission has resorted to this step with Hungary as well.

103 However, the link between country-specific recommendations and scoreboard indicators is not direct. Recommendations are formulated on the basis of multiple input sources.
Elements perceived to be barriers of limitations

The Scoreboard does not have enforcement mechanisms: Butler (2012) pointed out that the scoreboard does not have, by itself, any enforcement or sanctions provisions. Through its integration in the European Semester, its findings are reflected in the Semester’s country-specific recommendations; however, Member States cannot be sanctioned for non-implementation of any reform recommendations.

The Scoreboard has a limited scope: Currently, the Justice Scoreboard is limited in its scope in that it covers only civil, commercial and administrative justice. The Commission would like to include (and this is encouraged by others, including the European Parliament\(^{104}\) to include criminal law as well. However, this is currently not considered feasible by the EC due to the lack of available comparative data that would enable the construction of the scoreboard in the criminal domain.\(^{105}\)

2.2.4. GRECO

With respect to non-EU monitoring systems, GRECO evaluations elicited varied comments from interviewees and in reviewed literature.

Elements perceived to have been effective

GRECO’s approach is systematic: One interviewee praised GRECO’s systematic and thematic approach to their evaluations, as opposed to what they viewed as a rather subjective selection of topics for review identified by the EU in its ACR.

GRECO can mobilise ‘soft’ enforcement levers: One interviewee offered a different assessment and felt that GRECO had been successful in following up on its recommendations, although the expert acknowledged that the system is based on political pressure rather than a ‘hard’ sanction regime.\(^{106}\) A special procedure is foreseen for addressing situations where a country’s response to GRECO’s recommendations is found unsatisfactory (Rule 32) (CoE, 2011; CoE, n.d.-f). This procedure entails an intensification of communication between GRECO and relevant authorities from the country in question, including requests for clarifications and follow-up from the GRECO president to national delegations, its Ministry of Foreign Affairs and any other pertinent high-level representative. In addition, GRECO also has the ability to send a mission to the country and ask for explanation. According to the interviewee, this procedure has worked very well in the past when applied to Austria and Luxembourg and is well received by the Member States.

GRECO, along with the UN and OECD, benefits from open channels of communication among entities that undertake similar activities. As confirmed by representatives of various monitoring mechanisms, GRECO and organisations such as the OECD and the UN consult regularly on their activities, attend each other’s events and offer expertise assistance. This has

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\(^{104}\) See, for instance, the Parliament’s Resolution of 12 March 2014 on evaluation of justice in relation to criminal justice and the rule of law (EP 2014b).

\(^{105}\) One interviewee stressed this data availability issue does not necessarily cover all Member States. In fact, some countries already report criminal law data in a sufficient quality.

\(^{106}\) According to the interviewee, it is also important to keep in mind another fundamental difference between the CoE and the EU. Unlike the EU, the CoE does not provide any substantial financial support to its Member States and thus does not have at its disposal what may amount to a very effective lever.
not necessarily translated into a formalised instrument of coordination but has contributed to the effectiveness of their activities.

Elements perceived to be barriers of limitations

**Questions about the validity of GRECO’s evaluations:** Wolf (2010) observed that some countries scoring well in GRECO evaluations nevertheless fare badly in other corruption indicators.\(^{107}\)

**Lack of an effective ‘hard’ enforcement mechanism:** Another interviewee noted that a barrier to greater effectiveness of CoE’s conventions and its monitoring mechanisms was the lack of an effective enforcement mechanism. In the interviewee’s opinion, this makes GRECO’s work relatively toothless. This is in contrast to the point made by another interviewee, explained above, that the soft enforcement mechanisms employed by GRECO were effective.

**Effectiveness of GRECO is limited by resources:** As with other monitoring mechanisms, the work of GRECO is subject to capacity constraints both in evaluation and in country implementation. This has been echoed by one interviewee, who felt that GRECO would benefit from additional resources that could translate into greater monitoring and reporting capacity on the ground in individual Member States (‘of course you get different results if you have 20 on a single country than having 20 persons for 49 countries’).\(^{108}\)

### 2.3. The effectiveness of EU institutions with relevant powers in addressing corruption at the EU level

**Elements perceived to have been effective**

The TI report pointed out that OLAF (as well as the ECA and the Parliament) exercise their oversight roles in an active manner: The EP is issuing an increasing number of requests for information to other institutions.

**There are a number of anticorruption and transparency practices already in place to tackle corruption within EU institutions:** Overall, TI’s report on the European Integrity System found that ‘there is good foundation to tackle corruption laid by policies and rules adopted to tackle fraud and corruption’ within the EU (Transparency International 2014b). In particular, the authors laud the existence of a good number of anticorruption and transparency practices already in place, such as measures to protect EU institutions and their staff from undue influence, and the existing system enabling the investigation of alleged fraud/corruption/maladministration. With respect to tools for engaged citizens, the EU has provisions in place for the public to ask for information, submit complaints and request review of its policy decisions.

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\(^{107}\) We note this observation is related to the issue of formal compliance, listed as one of the limitations mentioned in the introduction chapter to this paper.

\(^{108}\) A similar capacity issue may be faced by the Implementation Review Group of the UNCAC. In 2013, TI published a progress report on the UNCAC, which found that the review process was substantially behind schedule, perhaps partly due to its large scope. The report also noted that the Convention included no clear procedure that would enforce compliance if state parties were found in breach of their obligations.
However, the TI report also noted that corruption risks persist at the EU level, largely due to issues such as ‘poor practice, lack of political leadership, failure to allocate sufficient staff and lack of clarity about to who the rules apply’ (Transparency International 2014b).

**Elements perceived to be barriers of limitations**

The perceived independence of OLAF **might be undermined due its position within the European Commission.** TI notes that the independence of OLAF, or at least the perception thereof, may be somewhat undermined. This observation was not necessarily in line with views expressed by experts interviewed.¹⁰⁹ None of the interviewees commented on OLAF’s institutional position as part of the EC as a potential issue and one interviewee explicitly did not find this set up problematic.¹¹⁰ Still, however independently OLAF actually operates, perceptions may not correspond to that reality and therefore remain a problem for legitimacy.

**OLAF and other institutions rely on Member States to initiate prosecutions regarding the use of EU funds.** Since there are no judicial and prosecutorial powers at the EU level (OJEU does not have the power to judge EU-level corruption cases) (Transparency International 2014b), the current system is based on national authorities prosecuting cases based on the 1995 convention on the protection of EU’s financial interests mentioned above. All investigations falling under the scope of the convention take place either based on Member State initiatives or based on OLAF investigation. Since OLAF has no competences with respect to criminal investigations, its activity is limited to making recommendations to individual Member States about whether to prosecute a given case or not. Importantly, as several interviewees noted and as reported in annual OLAF reports, the current rate of convictions following OLAF’s recommendations is very low, in some Member States as low as 0 per cent (i.e. no OLAF recommendations lead to convictions) (OLAF 2011), although there is substantial variability in the conviction rate across individual Member States.¹¹¹ OLAF is currently able to provide recommendations only and has no power to compel individual Member States to act on these recommendations (Transparency International 2014b).¹¹² Where Member States decide not to act this may be so for a variety of reasons, from corruption to inadequate resources afforded to serious fraud and corruption, whether EU-related or national:¹¹³

- In some instances, Member States have little interest in taking cases forward, for instance due to the lack of a sense of ownership and due to the difficulty with identifying the appropriate jurisdiction (particularly for cross-border cases).

¹⁰⁹ A similar comment about the (perceived) lack of OLAF’s independence was made in an impact assessment of the proposed European Public Prosecutor’s Office (EC 2011b).
¹¹⁰ By contrast, one interviewee felt that, while acknowledging the existence of its supervisory committee, OLAF’s oversight is not as strong as that of its national counterparts.
¹¹¹ A similar variability (with some countries recording 0 per cent) exists for indictment rates (OLAF 2014). An interim report by the LIBE committee on the establishment of the EPPO stated that the average rate of indictment based on OLAF’s recommendations between 2006 and 2013 was 31 per cent (EP 2015a).
¹¹² This was echoed by one interviewee who stated that OLAF had ‘no real power.’ The same observation applies to the EU’s law enforcement agencies, which, as pointed out in the Initial Appraisal of the Impact Assessment, have been increasingly active but lack necessary powers (Davies 2013). While Eurojust can ask Member States to initiate an investigation, it has no control of the follow-up. Similarly, Europol provides support to national authorities but cannot direct national investigations or influence any follow-up work stemming from its analyses and outputs (EC 2013a).
¹¹³ See e.g. Doig and Levi (2013).
Authorities may also have little appetite for prosecuting cases with a potential for conflicts of interest if it is related national authorities who are implementing the EU funds (EC 2013a).

Lack of resources may also play a role in some cases, coupled with insufficient and frequently ineffective mechanisms for international cooperation and information exchange.\(^{114}\)

In addition, one interviewee pointed out that in instances where Member States do act on OLAF’s recommendations, their authorities repeat the investigation. This is not only costly in terms of resources, but also takes considerable time, which may cause some cases to be time-barred where there is a statute of limitations.

In response to the challenges presented above, the Commission has put forward a proposal to set up the European Public Prosecutor’s Office (COM(2013)0534), as envisaged in the Lisbon Treaty,\(^{115}\) which is currently undergoing consideration. This is discussed further in Section III of this chapter.

Lack of transparency in relation to law making and lobbying within EU institutions: One area of deficiency identified by TI concerns transparency in law making and the related issue of lobbying. Substantial amounts of information and documentation pertaining to the work of EU institutions are routinely made available.\(^{116}\) However, these publications do not cover all negotiations and meetings, leaving part of the decision process out of public scrutiny. There is also no requirement on EU representatives to report on and disclose their meetings with lobbyists, or on input lobbyists may have had into legislative documents. This concern about rules governing interactions with lobbyists and vested interests was echoed by several interviewees, one of whom pointed out that the existing register of such interactions at the EU level remains optional.

Room for improvement in the rules on conflict of interest by EU officials: With respect to conflict of interest, the TI found that current rules in place represent a good basis to prevent corrupt behaviour by EU staff but noted their complexity, creating potential for confusion. With respect to MEPs and other senior EU figures, gaps exist in the existing control mechanisms, such as insufficient verification of asset declarations or limited independence of ethics committees in EU institutions, which are frequently composed of former or current members of the very institutions they are supposed to oversee.

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\(^{114}\) For instance, a study on the impact of the different policy options to protect the financial interests of the Union by means of criminal law, conducted by Ecorys and referred to in the EPPO Impact Assessment (EC 2013a), noted that mechanisms such as requests for mutual legal assistance or join investigation teams often do not function well, due to practical difficulties such as language problems and differences in legal systems, and are rather lengthy.

\(^{115}\) Art 86 of the Treaty provides for the possibility of setting up a European Public Prosecutor’s Office (EPPO) ‘for investigating, prosecuting and bringing to judgment [...] the perpetrators of, and accomplices in, offences against the Union’s financial interests.’

\(^{116}\) The Ombudsman has played a role in further improving the transparency of EU institutions.
3. Is there potential for action at EU level that might lead to added value to the challenges identified?

This section presents suggestions on how to address gaps and barriers in existing EU actions, including legislation and its implementation which hinder effective combat against corruption in the EU, set out in Section 3-II.

Possible actions that might lead to added value were sought in the available literature and during interviews. Table 17 shows the potential actions that were identified.

The right hand column of the table lists ‘soft’ measures. A detailed discussion of these is outside the scope of this paper as the remit of this paper is limited to EU measures and action and focuses on modifications or additions to existing legislative instruments. However, several interviewees suggested that, as a practical consequence of the limited EU competencies in the area and the need to work with Member States, some of the most actionable and feasible options for policy action may revolve around ‘soft’ measures. These measures would be intended to help generate positive change in individual Member State policy and practice and may include capacity building, encouragement of political will, etc. In this report, we pay attention to instances where ‘soft’ law and ‘soft’ measures may be appropriate, but their detailed discussion remains out of scope of this report.

Each of the possible actions in the left hand column is discussed in turn below.

**The EU might not be the best actor**

When considering future policy options, several interviewees stressed that it should not be automatically assumed that the EU is the best entity in a position to act. The EU is not the only actor in the fight against corruption in the EU - GRECO, OECD and the UN play important roles. As exemplified by the data synthesis supporting the EU Anticorruption Report, there is a good degree of coordination across these actors and EU activities build on work undertaken by these external actors. This existence of a multitude of actors, albeit with somewhat differing remits and activities, means that careful thought should be given to what the EU institutions should focus on to avoid duplication of effort. As Doig and Levi (2009) note in their review of inter-agency cooperation in the UK, so much time may be spent on liaison that there is little resource left to act (Doig & Levi 2009).

**Table 17: Potential actions at EU level that might lead to added value to the challenges identified**

<table>
<thead>
<tr>
<th>‘Hard’ measures, within EU competency, within remit of LIBE committee</th>
<th>‘Soft’ measures mentioned in literature and interviews, measures falling outside of EU competence, and outside remit of LIBE Committee—outside the scope of this research paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Make use of infringement proceedings against Member States who have not implemented EU law in relation to the fight against corruption</td>
<td>- Education and capacity building of national and local public authorities</td>
</tr>
<tr>
<td></td>
<td>- Further development of mechanisms for sharing good practice</td>
</tr>
</tbody>
</table>
Annex II: Corruption

<table>
<thead>
<tr>
<th>‘Hard’ measures, within EU competency, within remit of LIBE committee</th>
<th>‘Soft’ measures mentioned in literature and interviews, measures falling outside of EU competence, and outside remit of LIBE Committee—(outside the scope of this research paper)</th>
</tr>
</thead>
</table>
| - Support new legislation to harmonise protection for whistleblowing within Member State and/or provide protections to whistleblowers within European Institutions.  
- Support new legislation to define a public official.  
- Make improvements to the ACR.  
- Extend the Cooperation and Verification Mechanism to other Member States.  
- Make improvements to the EU Justice Scoreboard.  
- Take steps for the EU to accede to GRECO.  
- Establish a European Public Prosecutor’s Office. | - Leveraging enlargement vis-a-vis third countries.  
- Continuing mainstreaming corruption into other policy areas.  
- Introducing greater conditionality of access to EU funds.  
- Monitor implementation of legislation under transposition, primarily procurement directives. |

3.1. Make use of infringement proceedings against Member States who have not implemented EU law in relation to the fight against corruption

This action could address the following gaps and barriers in existing EU actions, including legislation and its implementation:

- In some instances EU and other legislation has not been formally transposed by Member States.
- There is evidence of variability in prevention, control and regulation mechanisms within Member States.
- The effectiveness of EU action is dependent upon skills, capabilities and capacities within Member States.

3.1.1. What would this option involve?

The EU has the possibility to initiate infringement proceedings against individual Member State with respect to the implementation of EU law at the Member State level. Since December 2014, this option covers Union acts in the area of police and judicial cooperation in criminal matters (this equalisation with other policy areas was explicitly recognised in the 2014 Annual Report on monitoring the application of EU law) (EC 2015d).

In practical terms, infringement procedures follow a well-established process (in accordance with Article 258 of TFEU) (EC, n.d.-e). The procedure can be linked (under Article 260 of TFEU) to financial sanctions, following a clear set of guidelines for setting their amount, thus linking
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non-implementation by Member States to one of the strongest levers the EU has – financial incentives.\footnote{For instance, there are very specific guidelines in place to determine the applicable financial penalties. See (EC 2015b).}

3.1.2. Does it require new legislation/policy?

No. This policy option does not entail the creation of a new instrument but rather focuses on making systematic use of an existing tool. Because it has only recently been developed, there are no official statistics on how frequently the new powers have been used.

3.1.3. What are the possible challenges or limitations to this option?

The number of legislative measures that could serve as the basis for infringement proceedings remains limited.\footnote{A similar limitation can be found with respect to efforts to ensure an effective implementation of the Charter of Fundamental Rights in accordance with the Charter’s Article 47, guaranteeing a remedy in case of a violation of rights and freedoms. However, the Charter’s Article 51 explicitly states that this applies to Member States only when ‘implementing Union law.’ (FRA, n.d.-a).} To illustrate, Anagnostou and Psychogiopoulou (2014) identified only two EU hard law instruments against corruption – the 1995 PIF Convention and the 1997 Corruption Convention, along with their respective protocols. The point about the limited number of applicable binding measures is also made by Dori (2015), who stressed that the test of a Member State failing to implement EU law is ‘not easily fulfilled by non-binding recommendations.’ However, some legislation is in place, such as the new public procurement directives, which are now being transposed by Member States.

In this context, it is also important to recall the role of the Commission as the guardian of the EU Treaties, as laid out in section 1-I-5.

In an effort to increase its options in the area, short of triggering the Article 7 procedure, the Commission introduced in 2014 a new framework, intended to address existing threats to rule of law that cannot be addressed through Member State action or through infringement proceedings.\footnote{The process envisaged under this framework consists of three stages: an assessment of the situation by the Commission, followed by the Commission’s recommendations and by monitoring of how the Member State in question acts on the recommendations. Depending on the outcomes, the situation is either resolved satisfactorily or Article 7 is invoked (Kochenov & Pech 2015).} Recently, this process was launched in connection with recent political developments in Poland (EC 2016). Given the contribution of the fight against corruption to overall rule of law, this framework may be considered as an addition to the tools at the EU’s disposal.\footnote{To illustrate, Butler (2012) discusses the possibility of using EU rule of law competencies to follow up on indicators from the Justice Scoreboard.}

When contrasting EU’s enforcement powers with those of other bodies, one interviewee pointed out that the (quasi)voluntary character of mechanisms such as GRECO’s evaluations may be instrumental in receiving buy-in from Member States, who may be reluctant to participate in projects of a more mandatory nature. This represents a potential limitation on the use of coercive measures by the EU. It is a dimension to consider when assessing the balance of ‘hard’ and ‘soft’ measures that could be put forth by the EU and other actors.
3.2. Support new legislation to harmonise protection for whistleblowing within Member States and/or provide protections to whistleblowers within European institutions

This action could address the following gaps and barriers in existing EU actions, including legislation and its implementation:

- There is evidence of variability in national-level prevention, control and regulation mechanisms within Member States.
- The effectiveness of the fight against corruption might be reduced by gaps in EU Law (in particular, the absence of an EU instrument on the protection of whistleblowers).

3.2.1. What would this option involve?

One course of action is to adopt an EU instrument on whistleblowing with the aim to (i) address the insufficient protection to whistleblowers afforded by some Member States, or (ii) insufficient protection to whistleblowers from EU intuitions.

As mentioned above, the Restarting the Future campaign has called for the adoption of an EU directive on whistleblowing and the establishment of a European Authority for Whistleblowing.

The following possible features of whistleblowing legislation, related in particular to addressing corruption in regional and local public procurement, were identified in the literature review and interviews:

- **Develop sectorial legislation**: One of the Anticorruption report’s recommendations touched on the point of prevention and detection and called for efforts to raise awareness about the need and know-how for prevention and detection of corrupt practices at all levels of public procurement. In this context, an option for EU action with respect to whistleblowing, as presented by an EP legal service representative, is to use sectorial legislation, along the lines of offering preferential treatment to contractors who cooperate with the Commission in cartels cases.121

- **Require companies providing services to EU institutions to demonstrate whistleblowing protections**: On a related note, an interviewee suggested that the EU should require companies who benefit from EU funds to demonstrate that they have effective whistleblowing policies in place. This would be somewhat akin to provisions included in the US Sarbanes Oxley Act and subsequent regulations (see Box 7) and could be considered for inclusion as a legislative measure. In this context, we recall the adoption of EU Directive 2014/95/EU on the disclosure of non-financial and diversity information (EU 2014f). The directive will require large companies122 to report

121 This is frequently referred to as the Commission’s leniency policy (EC, n.d.-c).
122 The criteria include more than 500 employees and a balance sheet in excess of €20m. (Thomas & Maguire 2014).
information on a wide range of environmental, social and governance issues, including any anti-bribery and anti-corruption procedures the companies have put in place. However, Linklaters (2014) pointed out that the directive leaves a large amount of discretion to companies in terms of what they decide to report and does not include any sanctions.\textsuperscript{123}

Box 7: Contribution of the Sarbanes Oxley Act to the protection of whistleblowers in the United States\textsuperscript{124}

The Sarbanes Oxley Act was passed in 2002, following the scandals of Enron and WorldCom, as an effort to reform corporate governance and improve financial regulation in the United States. The majority of its provisions applied only to publicly traded companies but its measures to protect whistleblowers covered public and private companies alike (Gates 2011). The act expanded the protection of private-sector whistleblowers, who until then were largely protected only if reporting concerns related to public health and safety, and broadened the scope of protected disclosures. The act also introduced stronger penalties and corrective measures (both civil and criminal) for any reprisals against whistleblowers and made the burden of proof favourable to employees.

In addition, the adoption of Sarbanes Oxley spurred the enactment of whistleblower protection at the state level, for instance in California and in Connecticut. With respect to publicly traded companies, the act requires them to disclose whether they have codes of ethics in place covering senior executives. Subsequently, the NYSE started requiring companies listed on the exchange to demonstrate they have ethical codes in place covering all employees, including rules against retaliation against employees (Westman 2005). Similar requirements for federal contractors were enacted in the 2007 Federal Acquisition Regulations, which required contractors with contracts exceeding $5m to have in place a code of ethics and business conduct, including an employee awareness programme, an internal controls system and an employee reporting process (Jackson Lewis Corporate Governance Practice Group 2009).

3.2.2. Does it require new legislation/ policy?
Yes. There is currently no EU instrument on whistleblowing

\textsuperscript{123} Although Member States may elect to introduce stricter requirements in their transposition of the directive.

\textsuperscript{124} The purpose of this box is to provide additional detail with respect to a whistle-blower protection mechanism suggested by interviewees as an example of good practice. We note that protection of whistleblowers in the United States has a longer tradition, expressed in, among others, \textit{qui tam} provisions in the 1856 False Claims Act, and more recently the Whistle-blower Protection Act of 1989. For a discussion of these measures see, for instance (Doyle 2009; Shimabukuro & Whitaker 2012).
3.2.3. What are the possible challenges or limitations to this option?

In relation to the Member State level, this option is hampered by the lack of a clear legal basis for such an action. A representative of the EP’s legal service has stressed that there is no legal basis for a general legislation addressing areas outside of EU activities (EP 2016). Recognising this, Box 8 sets out a non-legislative alternative that would be within the competency of the EU. However, the Union has the competence to act with respect to whistleblowing within EU institutions and for people and entities dealing with EU institutions.

Box 8: Possible non-legislative action to improve protection for whistleblowers at Member State level: a whistleblowing pact

As an alternative to (or as well as) bringing forward legislation to protect whistleblowers, the EU could support the development of a whistleblowing pact among Member States, analogous to successful inter-Member State agreements in other policy areas, such as the Fiscal Compact (EC, n.d.-k). A recommendation for this kind of action was made to the CoE by Stephenson and Levi (2012), who argued for the formulation of a recommendation based on existing principles. Advantages of this, they pointed out, would be that it would avoid the laboriousness of negotiating a stronger legislative instrument and the desirability of letting each jurisdiction take into account their specific contextual factors.

3.3. Support new legislation to define a public official

This action could address the following gaps and barriers in existing EU actions, including legislation and its implementation:

- There is evidence of variability in prevention, control and regulation mechanisms within Member States.
- The effectiveness of the fight against corruption might be reduced by gaps in EU law (in particular, the absence of common definition of a public official).

3.3.1. What would this option involve?

Developing legislation to provide a single definition of a public official that would apply across all Member State and within EU institutions.

3.3.2. Does it require new legislation/policy?

Yes. There is currently no legislation providing a common definition of a public official,

125 The Fiscal Compact is an intergovernmental treaty setting standards and objectives for fiscal and monetary policy. It forms a part of the broader Treaty on Stability, Coordination and Governance (TSCG).
However, this issue may be resolved pending adoption of a Commission proposal for a directive on criminal law protection from fraud and related offences to the EU financial interests (EC 2012c).\footnote{Follow-up documents from the Council and the Parliament are general approach of 3 June 2013, Council Doc. 10232/13 and opinion of the Committee of Legal Affairs, A7-0000/2013, respectively.)}

Submitted in 2012, the proposal offers a definition in Article Four of the proposed directive, stating that a public official includes persons holding a legislative, administrative or judicial office or otherwise exercising a public service function for the Union or in Member States, as well as persons exercising such a function in a third country (EC 2012c). This proposed definition was supported by the follow-up documents from the Council and the Parliament in 2013 and 2015 with the aim to adequately protect Union funds from corruption and misappropriation and includes everyone assigned a public service in relation to Union funds (Council of the EU 2013).

However, the proposed directive has not been adopted yet (EUR-lex, n.d.). The fact that the fraud directive’s definition would be transferrable to other corruption-related instruments is exemplified in the latest draft of the EPPO Regulation, which notes that its definitions will need to be brought in line with those included in the final text of the PIF-Directive (Council of the EU 2015b).

3.3.3. What are the possible challenges or limitations to this option?

The enforcement of legislation incorporating a unified definition of a public official would still be heavily dependent on the effectiveness of its implementation by Member States.

3.4. Make improvements to the Anti-corruption report

This action could address the following gaps and barriers in existing EU actions, including legislation and its implementation:

- Corruption at the EU level does not fall within the scope of the ACR
- There is no formal assessment procedure for the ACR
- The ACR includes little new data.

3.4.1. What would this option involve?

The following possible improvements were suggested to the ACR by interviewees:

Include the EU within the scope of the ACR (this was originally the plan for the ACR).

Replace the ACR with a broader rule of law monitoring framework. Pech (2015) notes that the ACR exists in parallel with other monitoring tools, such as the Justice Scoreboard, which
address related but distinct areas. He suggested it may be more effective to replace this range of (in his view) ‘weak’ (Pech 2015) tools with a broader rule of law monitoring framework. This suggestion is also suggested by, among others, Müller (2015), who discusses the establishment of a ‘Copenhagen Commission’, which would assess Member State progress in a fashion that is similar to what candidate countries undergo (i.e. progress towards the Copenhagen Criteria).

Involv e Member States earlier in the process of developing the ACR: In the 2014 iteration of the report, one interviewee felt that Member State may have been involved too late in the process of its compilation. Going forward, involving countries sooner would be beneficial and the interviewee thought this was being planned for the next (2016) iteration. Greater involvement with other actors such as NGOs and private sector representatives would also be helpful.

Raise the profile of the ACR: One interviewee called for the ACR to be used more ‘courageously’ as a vehicle for the generation of political will for policy reforms in Member State. This effort may include working to raise the profile of the ACR and communicating its findings to wider audiences who could put pressure on individual Member State. How this could be done remains an open question.

Increase the number of outputs from the ACR: One interviewee suggested that the ACR could generate more outputs. It may be useful to make information available between biennial publications of the report, to share all the monitoring data collected and to enable ongoing review, discussion and sharing of experience. One possible platform for this may be the experience sharing workshop programme discussed above.

Add more data into the ACR: An interviewee believed that additional data could be brought to bear in the preparation of the ACR. One possibility would be justice system statistics, ideally comparable across countries (this is currently being worked on by the European Commission), though these are inevitably quite time-lagged, because of delays between offending, detection, investigation and trial, even where all those procedures take place.

3.4.2. Does it require new legislation/ policy?
This does not require new law or policy.

3.4.3. What are the possible challenges or limitations to this option?
- Interviewees noted that the inclusion of the EU in the ACR would not result in an independent, external review and may thus not be as desirable as other options.
- Increasing the scope/ data / outputs would require additional resources and time.
- Replacing the ACR with a broader monitoring framework might not be supported by the Member State.
3.5. Extend aspects of the Cooperation and Verification Mechanism to other Member States

This action could address the following gaps and barriers in existing EU actions, including legislation and its implementation:

- In some instances EU and other legislation has not been formally transposed by Member States.
- There is evidence of variability in prevention, control and regulation mechanisms within Member States.
- The effectiveness of EU action is dependent upon skills, capabilities and capacities within Member States.

3.5.1. What would this option involve?

Several interviewees agreed that some other countries would benefit from some of the elements of the CVM. This would involve implementing a monitoring programme for selected Member States – for example, those that fare poorly in the ACR reports or GRECO assessments.

3.5.2. Does it require new legislation/ policy?

The legal basis for the current CVM can be found in Bulgaria and Romania’s accession treaties. Any application of a CVM-type monitoring mechanism in a non-accession context would require a new, tailored CVM to be designed, and would require buy-in from the Member State to which it applies.\(^{127}\)

3.5.3. What are the possible challenges or limitations to this option?

Several interviewees noted the difficulty in making this politically feasible.

A study conducted by the Centre for European Policy Studies (Alegre, Ivanova & Denis-Smith 2009) argued that the same level of EU interference in domestic political affairs may not be acceptable in other, particularly older Member States. In fact, such efforts may even be counterproductive and undermine ‘public confidence in the EU area of freedom, security and justice by confirming suspicions that the ‘tentacles’ of Brussels are reaching right into the heart of national sovereignty’ (Alegre et al. 2009 p.5).

The CVM responded to very concrete needs in Bulgaria and Romania (as reflected in the different design of the CVM in BG and RO) and any application of CVM elements elsewhere would need to follow local needs.

\(^{127}\) As one possibility, Alegre et al. (2009) suggest that a CVM-type model might be applied in situations where a Member State is found in breach of its rule of law obligations.
3.6. Make improvements to the EU Justice Scoreboard

This action could address the following gaps and barriers in existing EU actions, including legislation and its implementation:

- The Scoreboard has a limited scope.

3.6.1. What would this option involve?

- Increase the scope of the Scoreboard to include criminal courts.
- In addition, one interviewee mentioned several other options for improvement, which are currently being explored by the Commission. For instance, the EC has started conducting pilot studies to assess the state of play in very specific areas and topics, such as EU competition law, which may evolve into full-size additions to the scoreboard. There is also scope for collecting more data and increasing the number of contributing indicators in the scoreboard, exemplified by a recent effort to gather information on how well Member States publish court judgments online.

3.6.2. Does it require new legislation/policy?

No, amendments to the Scoreboard do not require new legislative or policy instruments.

3.6.3. What are the possible challenges or limitations to this option?

Increasing the scope to include criminal courts is currently not considered possible due to insufficient comparable data. Improvements in data collection are a prerequisite for this expansion.

The other options are currently under consideration by the Commission.

3.7. Take steps for the EU to accede to GRECO

This measure could address the following challenges set out in Section 3–II-2:

- Corruption at the EU level does not fall within the scope of the ACR.
- Lack of transparency in relation to law making and lobbying within EU institutions.
- Room for improvement in the rules on conflict of interest by EU officials.
3.7.1. What would this option involve?

One possibility to improve the monitoring of and reporting on corruption at the EU level would be for the EU to join GRECO and thus become subject to its evaluation procedure, as envisaged by Article 5 of GRECO’s statute (CoE 2015b).

The European Union is collaborating closely with GRECO and has considered acceding to the group, in parallel to the existing memberships of EU Member States and other European countries (EC 2012a). A call for the EU’s accession to GRECO was also included in the EU’s first Anticorruption Report.

The option of EU accession to GRECO was also highlighted independently by several interviewees, who felt the EU would strongly benefit from an external review conducted according to GRECO standards and in line with its principle of equal treatment of members. In addition, interviewees felt that, with the EU becoming more closely embedded in the discussions and work of GRECO, there may be positive spill-over effects further downstream at the level of individual Member State in the form of better coordination of anti-corruption policies and monitoring of the state of play. GRECO shares this perspective as well, as evidenced by an explanatory memorandum on the implementation of the Memorandum of Understanding between the Council of Europe and the European Union. The document reiterates GRECO’s position that ‘EU participation in GRECO would contribute to more co-ordinated anti-corruption policies in Europe and strengthen their impact’ (CoE 2014a).

3.7.2. Does it require new legislation/policy?

This option would require the adoption of an agreement on the EU’s accession to GRECO.

3.7.3. What are the possible challenges or limitations to this option?

According to EP representatives, the ability of the EU to accede to GRECO and the conditions under which this would happen may have influenced Opinion 2/13 of CJEU (CJEU 2014b), that the EU could not accede to the ECHR as envisaged by the current draft agreement (Douglas-Scott 2014). In its reasoning, the Court felt that the draft agreement treated the EU as a state, thus not paying attention to the intrinsic nature of the EU, its law and its autonomy.

However, the consequence of this ruling with respect to the EU’s accession to GRECO remains unclear. The EU’s accession to GRECO was declared a political priority by the EU (Council of the EU 2015a) and CoE (CoE 2015a) representatives alike even in the aftermath of the 2/13 ruling, although two interviewees noted that a legal analysis of how to proceed was needed. One interviewee suggested that this appears to be a discussion taking place primarily within

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128 Article 37.
129 Specifically, the court found that the following fundamental issues were not addressed sufficiently in the draft agreement: 1) characteristics and autonomy of EU law, 2) article 334 of the TFEU, prescribing MS to settle disputes pertaining to the application of EU Treaties to means prescribed in those treaties (as opposed to the ECHR), 3) co-respondent mechanism, envisaged to address how responsibility between the EU and MS is split, 4) procedure for the prior involvement of the Court, and 5) judicial review in the area of common foreign and security policy. For a CJEU press release summarising these arguments (see, CJEU 2014a).
EU institutions, as exemplified by two questions to the Commission on the topic raised by MEPs in the second half of 2015 (EP 2015f; EP 2015g). From the perspective of the Council of Europe, the EU continues to be invited to accede ‘as soon as possible.’ (CoE 2015c).

3.8. Establish a European Public Prosecutor’s Office

This measure could address the following challenges set out in Section 3–II-1:

- OLAF and other institutions rely on Member States to initiate prosecutions regarding the use of EU funds.

3.8.1. What would this option involve?

The Commission has put forward a proposal to set up the European Public Prosecutor’s Office (EC 2013e). If approved, this would mean the establishment of an independent office with the authority to prosecute corruption cases independently of Member State prosecution authorities, albeit in Member State courts.

According to the original legislative proposal, the EPPO was to be a decentralised body of the Union with its own legal personality. As one interviewee explained, by being staffed with people elected by EU institutions and accountable to the EU (i.e. independent of individual Member States), the room for national influence on the ultimate decision whether to take a case forward should be minimised. In addition, the planned modus operandi for the EPPO would avoid duplication (and the ensuing risk of time barring of cases) of work between OLAF and Member States as the EPPO would work directly on the basis of Member State information. As an added benefit, this would enable OLAF to focus on purely administrative cases and leave criminal investigations to the EPPO.

Over the course of the ongoing negotiation process, the envisaged structure of the EPPO has been modified. According to the latest available consolidated proposal (Council of the EU 2015b) the EPPO, while retaining its decentralised structure, would be organised at both the central level and at the decentralised level:

- At the central level, general oversight responsibilities would be vested in a college consisting of the European Chief Prosecutor and one European Prosecutor for each Member State. In addition to the college, the central level would include a permanent

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130 The first question was submitted by Dennis de Jong (GUE/NGL), Elly Schlein (S&D), Benedek Jávor (Verts/ALE), Ignazio Corrao (EFDD), Ana Gomes (S&D), Marian Harkin (ALDE), and Monica Macovei (PPE) on 29 September 2015 and the second by Esteban Gonzales Pons (PPE) on 17 December 2015.

131 Article 7.4.

132 As specified in the proposal, this includes ‘lodging the indictment and any appeals until the case has been finally disposed of.’ Article 4, (EC 2013e).

133 Article 3, (EC 2013e).
chambers made up of a smaller number of college members and tasked with monitoring and directing investigations and prosecutions.

- At the decentralised level, the EPPO would consist of Delegated European Prosecutors who would be located in individual Member States and act there on behalf of the EPPO. This is very much in line with the original proposal for the EPPO, although the final scope of the responsibilities of the Delegated Prosecutors is dependent on the final agreement on the powers of the central level bodies.

According to interviewees, the establishment of the EPPO could result in a range of improvements in the fight against corruption. This conclusion is echoed in an impact assessment accompanying the EPPO proposal, which concluded that an independent prosecutor’s office would constitute ‘an adequate response’ to the issue of safeguarding the Union’s financial interests (EC 2013a). This could address one of the limitations of the current operation of OLAF, i.e. the low rate of convictions resulting from national prosecutions.

One interviewee also suggested that the establishment of the EPPO would make a welcome contribution to fighting corruption at the local and regional level, particularly in the domain of public procurement. This is because it is envisaged that the EPPO would have, at least in some cases, a decentralised presence in Member States. Through this organisational arrangement, the EPPO would have members of staff who are familiar with the national justice systems embedded at the local level.

Another area where it is hoped that an EPPO would have a positive impact is cross border crime and fraud in particular. This is of particular importance because, as numerous interviewees pointed out (and as mentioned in section 3-3), currently Member States, particularly smaller ones, often do not have the capacity and expertise to take on these complex cases. Furthermore, there remains a problem that it is not clear under the current system what reason a Member State would have for taking on difficult and expensive cases that might result in them having to repay fraudulently spent funds to the EC. This is particularly the case if Member States are not able to recover those funds from the fraudsters, either because this is not possible through judicial procedures and/or because they have been spent. This issue might be addressed by an EPPO, but will depend on the final configuration of the Office and, as several interviewees stressed, on the extent of its independence from Member States – this is discussed below.

In summary, at its maximum, the EPPO will be the first Union body to exercise powers that are traditionally attributed to nation-states. Its attributions will include conducting criminal investigations and prosecuting suspects, who are suspected of EU fraud and corruption, on the territory of participating Member States, against their own citizens, and without Member State consent. This in itself is a milestone in European integration as it inserts an EU body into the

134 See also (Franssen, 2013).
135 We note that the following discussion is speculative since the actual arrangements of the EPPO are still being considered. Information presented in this section is based primarily on expert interviews, though it is worth noting that the establishment of an independent EPPO is also one of the recommendations in TI’s Integrity System report.
136 This is particularly applicable to large Member States, though not all of them. For instance, France has already communicated that they would prefer to have a centralised EPPO presence.
137 As one interviewee noted, from the perspective of the EU, a particularly important issue in this aspect is carousel crime and resulting VAT evasion, due to its prominent contribution to the EU budget.
direct relationship between citizens and nation-states, a relationship in which the latter have so far had exclusive legitimacy of repression (use of violence and delivering justice) in case the social contract is breached. The EPPO will take over the exercise of some core state functions (investigate, prosecute and bring cases to court) and thus transform the way in which national justice systems work in the EU. Criminal prosecutions will gradually become European and the EPPO's very existence will trigger legal, including constitutional and regulatory, and/or institutional reforms. The impact is also symbolic: the Union protecting its budget may improve its standing in public opinion.

3.8.2. Does it require new legislation/policy?
Yes, but proposals have already been put forward by the Commission

3.8.3. What are the possible challenges or limitations to this option?
There are concerns that the proposed collegiate structure dilutes the independence of the EPPO from Member States and could limit its effectiveness. One interviewee felt the move towards a collegiate arrangement would be to the detriment of the institution’s effectiveness. The interviewee highlighted Eurojust as an example of the kinds of barriers to effectiveness faced by a collegiate organisation. This concern about the effectiveness of a collegiate-type arrangement was also registered in the EPPO’s impact assessment, although the actual details of the college option discussed in the document differ somewhat from the latest proposal text. Similarly, an EP interim report on the proposal found it ‘regrettable’ that the collegiate structure was under consideration.138

Overall, the departure from the original provisions bring in an increased role for Member States, which raises questions about the extent of EPPO’s independence from Member States (this issue was raised in the EP’s interim report (EP 2015b) and at an April 2015 conference on the EPPO at the European Academy of Law) (Council of the EU 2015c). Similar concerns are expressed in objections raised by some Member States to the proposed division of responsibilities and in suggestions to limit the competencies of the Permanent Chambers staffed by Member State-nominated European Prosecutors (i.e. College members) (Council of the EU 2015b). As an alternative, a number of Member States have suggested that ‘a system where the European Delegated Prosecutors are responsible for taking the bulk of the operative decisions would contribute significantly to the effectiveness of the EPPO’ (Council of the EU 2015b).

Uncertainties also persist surrounding the future relationship between the EPPO and OLAF. The original proposal afforded the EPPO exclusive jurisdiction in cases related to the protection of the financial interests of the EU, leaving OLAF with responsibility in administrative investigations not covered by the EPPO’s competencies (EC 2013f).139 However, an EP resolution from 2015 called for a clarification of the relationship between EPPO and OLAF and their responsibilities in protecting the Union’s interests (EP 2015b).

138 At the same time, however, the EP agreed the Chambers should ‘play a leading role’ in EPPO’s activities (EP 2015b). Rizzo (2015) also felt that the collegial structure may be ‘too heavy’ to be effective.
139 This position was reiterated in a reply to an MEP question in May 2014 (EP 2014a). According to the original proposal, areas not covered by EPPO competencies within OLAF’s remit include crimes committed by EU staff without a financial impact and irregularities affecting EU’s financial interests (EC 2013f).
Not all Member States will be covered by the EPPO. Denmark (through its JHA opt-out) is not involved in the setting up of the EPPO. The UK and Ireland have not opted into the EPPO (EP 2015h). To account for the possibility of a lack of a unanimous Council decision, Article 86 TFEU includes a provision for enhanced cooperation in the event of nine interested Member States, which would be sufficient for the establishment for the EPPO.

The non-participation of some Member State could also affect the relationship between OLAF and the EPPO. In this scenario, the EPPO impact assessment foresaw the creation of two groups of Member States, one where OLAF would continue to be responsible for external investigations and one where it would not (EC 2013a).

The EPPO would rely on information from other agencies. If implemented as currently planned, the EPPO would be heavily dependent on information provided by other agencies, notably justice system agencies in individual Member States. For this reason, current proposals include providing the EPPO with tools to enforce cooperation by Member State:

- The ability to recentralise cases at the level of the EPPO and proceed independently of the Member State authorities.
- The ability of the Chief Prosecutor of the EPPO to talk directly to national police representatives to compel cooperation.
- The ability of the EPPO to take Member States to the CJEU (similarly to the current powers of the Commission).

According to one interviewee, there is a strong possibility that additional countries will not subscribe to the EPPO. As one of the contributing factors, the interviewee pointed out that corruption is still regarded as a sensitive issue by Member States, which want to keep it away from public domain.

According to one interviewee, Member States with a federal system of government are an inspiration for this arrangement. In such countries it is possible for federal authorities to step in to take a case forward where local/regional authorities do not intend to do so. This is discussed in Article 22 of the latest consolidated version of the proposal (Council of the EU 2015b).

We note these provisions, as reported by an interviewee familiar with the negotiation process, are a product of ongoing discussions and are not necessarily reflected in the original proposal for a Council Regulation establishing the EPPO.

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142 We note these provisions, as reported by an interviewee familiar with the negotiation process, are a product of ongoing discussions and are not necessarily reflected in the original proposal for a Council Regulation establishing the EPPO.
CHAPTER 4 COSTS OF NON-EUROPE: WHAT ARE THE POTENTIAL BENEFITS OF ACTION AT EU-LEVEL?

Chapter summary and key findings

Research activities: This chapter explores the costs of non-Europe in the area of corruption. It draws on:

- The total costs in GDP terms of corruption across the EU-28 Member States, calculated in Chapter 2.
- Evidence on the gaps and barriers in existing measures, set out in Chapter 3.
- The potential actions at EU level that might address challenges with current measures, also set out in Chapter 3.

Methodologies: This chapter employs a quantitative exploratory approach to calculate potential gains from some of the policy options identified in Chapter 3. The aim is to estimate what fraction of the overall costs of corruption could be recovered with additional action at the EU level. It is important to note that calculations in this chapter are based on assumptions, which we clearly outline where relevant. The analysis provided in this chapter should be interpreted cautiously. Our approach makes best use of the very limited data available, and this means that some of the hypothetical situations on which we base the analysis might not happen in the short or even longer term or might not be politically feasible. Nevertheless, the calculations in this chapter give a flavour of what could be gained by EU action.

Of the eight possible actions set out in Chapter 3, Section III, we are able to undertake a quantitative analysis for the following two, based on available data:

- Applying aspects of the CVM (or coordinated similar dedicated monitoring mechanism) to other Member States.
- Establishing an EPPO.

In addition, we are able to undertake an analysis of the potential effects of the implementation of the EU Directives on Public Procurement (especially e-procurement) (described in Chapter 3, Section 1).

Key findings:

- We predict that a CVM-like mechanism applied to more Member States, in addition to Bulgaria and Romania, could reduce the costs of corruption in GDP terms by around €70bn annually (or around 8 per cent of the overall costs of corruption).
- The establishment of an EPPO could reduce the costs of corruption related to EU funds by around €200m annually.
- The implementation of a full EU-wide e-procurement system could reduce the costs of corruption risk in public procurement by around €920m each year.
1. Cost of Non-Europe: establishment of a Cooperation and Verification Mechanism for other Member States

The motivation of this section is to investigate what would happen if Member States were subject to a mechanism similar in scope and objectives to the CVM. To do this we exploit a ‘quasi-experiment’ provided by the fact that the A10 countries (i.e. countries that joined the EU in 2004) were not subjected to the CVM, whereas Bulgaria and Romania have been since their 2007 accession. In this setting, we investigate how the level of corruption evolved for Bulgaria and Romania before and after accession and CVM, compared to the Member States in the 2004 enlargement using a ‘differences-in-differences’ estimation approach.143

As noted elsewhere in this report, we recognise the uniqueness of the CVM as a monitoring tool and the limitations (both political and practical) surrounding its applicability (or the applicability of its parts) to other Member States. However, we consider the idea of implementing a mechanism similar to the CVM to be a useful approximation of the potential extent of costs stemming from gaps in monitoring mechanisms in general.

1.1. Methodology: CVM as quasi-experiment

The idea is to compare whether (perceived) corruption in Bulgaria and Romania is significantly lower after 2007 compared to the pre-accession period. Obviously, in a simple before and after comparison, any change in the levels of corruption could be driven by changes in economic or political factors in the post-accession period, rather than by the existence of the CVM. Therefore, to identify the CVM effect, we compare the change for Bulgaria and Romania with the before and after change in levels of corruption for the A10 countries, which were not subjected to the CVM.

It is important to stress that the CVM coincides with EU accession for both Bulgaria and Romania and therefore it is not straightforward to disentangle the CVM effect from reductions in corruption levels that might result from other changes in the economic situation and transition in line with EU Membership. However, we believe that by benchmarking it to the A10 countries and their post-accession situation we seek to filter out the effect of the CVM on the levels of corruption. The use of the new Member State joining in 2004 further recognises the fact that candidate countries were also subject to regular progress reporting by the EU prior to their accession. This way, we aim to account for any effect EU pre-accession monitoring may have had in Bulgaria and Romania. In order to take into account different initial corruption levels in individual countries, we calculate the percentage change of the corresponding corruption indicator. In essence, we estimate the following equation using the same data as in chapter 2:

\[
\ln(\text{corr}_{it}) = \beta_0 + \beta_1 \text{CVM}_i + \beta_2 \text{post}_t + \beta_3 \text{CVM}_i \ast \text{post}_t + \beta_4 X_{it} + \epsilon_{it} \tag{3}
\]

where \(\text{corr}_{it}\) corresponds to the (log) level of corruption in country \(i\) in year \(t\). \(\text{CVM}_i\) takes the value 1 for countries under CVM (Bulgaria and Romania); \(\text{post}_t\) takes the value 1 in the post-accession period and 0 in the pre-accession period; \(X_{it}\) is a set of other control variables.

143 See (Angrist & Pischke 2008) for a summary about the methodology.
including growth of GDP per capita, trade openness, levels of inequality, the rule of law, population growth and the level of democratisation (polity2 variable). Since our post-accession period varies slightly across countries under CVM and those who are not, we include a full set of year indicator variables. The differences-in-differences estimator the OLS estimate of $\beta_3$, the coefficient on the interaction between $CVM_i$ and $post_t$. In essence, if $\beta_3 < 0$ then the countries under the CVM lowered their level of corruption more than the A10 countries without the CVM after accession to the EU.

As already mentioned in Chapter 2, only the ICRG corruption index can be consistently compared over time, whereas the CPI and the COC are not fully comparable over time. We will have to consider this when interpreting the results.

The results of estimating equation (3) are highlighted in Table 18 which reports the findings for all three corruption indices.

Table 18: Effect of CVM on levels of corruption

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>estimation method: OLS</td>
<td>ICRG index</td>
<td>CPI index</td>
<td>COC index</td>
</tr>
<tr>
<td>dependent variable:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>post_t</td>
<td>0.2133</td>
<td>-0.0381</td>
<td>-0.0103</td>
</tr>
<tr>
<td></td>
<td>(0.047)**</td>
<td>(0.034)</td>
<td>(0.035)</td>
</tr>
<tr>
<td>CMV_i</td>
<td>0.1612</td>
<td>0.0989</td>
<td>0.1669</td>
</tr>
<tr>
<td></td>
<td>(0.065)**</td>
<td>(0.052)*</td>
<td>(0.037)**</td>
</tr>
<tr>
<td>CMV_i*post_t</td>
<td>-0.1515</td>
<td>0.0234</td>
<td>-0.0072</td>
</tr>
<tr>
<td></td>
<td>(0.075)*</td>
<td>(0.084)</td>
<td>(0.077)</td>
</tr>
<tr>
<td>Observations</td>
<td>128</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Robust standard errors in parentheses;*** p<0.01, ** p<0.05, * p<0.10. Estimated on a sample of A10 countries plus Bulgaria and Romania over the years 1996-2014. Each estimation in columns (1)-(3) include the following control variables: growth GDP per capita, population growth, trade openness, rule of law, democratisation (polity2) and a full set of year dummies.

Using this empirical approach, we find for instance that the ICRG corruption index on average decreased by around 15 per cent more post-accession compared to the A10 countries not subject to the CVM (column 1). In contrast, we do not find any statistically significant effect of the CVM on the two other corruption indices (column 2 and 3).

However, it is important to stress again that previous literature strongly suggests using the ICRG index for any cross-country analysis over time as it is the only index that has been consistently measured over time (see e.g. Aidt 2011). The methods and measurement for CPI and COC have changed over time and may not be fully comparable over time. What is more, it is important to note that the findings do not suggest that the CVM reduces corruption by 15 per cent, compared to the A10 Member States, but rather that it reduces the level of the ICRG corruption index, which measures perceived corruption.

In what follows we employ the differences-in-differences estimate for the ICRG index of column (1) in Table 18 to calculate what amount of lost GDP could be recovered by having a
similar CVM mechanism in place for additional Member States. To that end we apply the reduction of the ICRG index in the cost calculation framework introduced in Chapter 2.

1.2. CVM-like mechanism and the Cost of Non-Europe

As highlighted in Table 3 above, the countries with the highest levels of corruption according to the ICRG corruption index, apart from Bulgaria and Romania, are Latvia, Lithuania, Italy, Croatia and Greece. To calculate the potential gains from EU action, we calculate how much lower the overall GDP loss would be if these five Member States reduced their level of corruption measured by the ICRG index by 15 per cent under a CVM-like mechanism.

Table 19 highlights the potential gains in terms of GDP from putting five countries under a CVM-like mechanism. Overall, the potential predicted gains of putting Croatia, Greece, Italy, Latvia and Lithuania under a CVM-like mechanism are in the ballpark of $78bn (€70.2bn) or around eight per cent of the total costs of corruption in GDP terms for the EU-28. It is important to note that the majority of this relatively large estimate would be driven by Italy. Looking at the most recent accession country, putting Croatia under such mechanism could potentially reduce the lost GDP by around $2.2bn (€1.98bn) on an annual basis.

Table 19: Potential gains in GDP terms CVM mechanism

<table>
<thead>
<tr>
<th>Member State</th>
<th>ICRG index actual</th>
<th>ICRG index (under CVM)</th>
<th>Lost GDP under CVM - Scenario 1 (in US Dollar)</th>
<th>Gain under CVM - Scenario 1 (in US Dollar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croatia</td>
<td>0.728</td>
<td>0.619</td>
<td>6,712,837,966</td>
<td>2,256,822,730</td>
</tr>
<tr>
<td>Greece</td>
<td>0.719</td>
<td>0.611</td>
<td>25,862,938,651</td>
<td>8,794,976,996</td>
</tr>
<tr>
<td>Italy</td>
<td>0.729</td>
<td>0.620</td>
<td>193,031,992,575</td>
<td>64,784,705,273</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.789</td>
<td>0.671</td>
<td>3,282,864,914</td>
<td>1,031,369,644</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.761</td>
<td>0.647</td>
<td>4,563,388,691</td>
<td>1,475,692,705</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>233,454,022,797</td>
<td>78,343,567,347</td>
</tr>
</tbody>
</table>

Notes: Column ICRG index (under CVM) shows index for the three Member State assuming 15 per cent reduction of the index. The last column shows the potential gain from the CVM mechanism for each Member State (Lost GDP actual from Table 6 minus Lost GDP under CVM). We use an exchange rate between the Dollar and Euro of 0.9 to transform the values into Euros.

It is important to bear in mind that the calculations presented are only predictions based on an estimated parameter and depend on the hypothetical case that it would be possible to put these countries under a strict monitoring mechanism. In addition, one should note that the estimated parameter of the effect of the CVM is measured over an average of seven years after implementation. Hence, it is important to stress that the improvements amid the CVM may not last forever and may plateau at some point, with diminishing gains after that.

2. Cost of Non-Europe: EPPO

We identified the introduction of the EPPO as one of the potential options where action at EU-level could reduce the overall cost of corruption. The existing impact assessment of the EPPO (EC 2013a) uses as working assumption that a ten per cent increase in the number of convictions will lead to a one per cent decrease in the annual fraud related damages suffered, which represents a combined effect of deterrence and actual recuperation of damages. We use this
elasticity to calculate the predicted reduction in the cost of corruption that would accrue if an EPPO was created.

### 2.1. Methodology: higher prosecution rates related to EPPO

Building on data on Member State-level indictment and conviction rates, as reported by OLAF and the EC (EC 2013f), the working assumption is that the number of prosecutions would be higher under EPPO, and could possibly be equal to the total number of judicial recommendations made by OLAF.

Subsequently a higher number of prosecutions would lead to more convictions, under the assumption that national Member State conviction rates, as share of all cases brought to courts, would stay the same. Table 20 highlights the current cases brought to court and the conviction rates at Member State level. Columns 2 to 5 report the current state of actions transferred to Member States and the corresponding judicial decisions and subsequent convictions taken by each Member State. Columns 6 to 9 report the hypothetical judicial actions and convictions that potentially would accrue under EPPO. Note, that the calculations are based on the assumption that EPPO would bring all actions transferred to a judicial decision under the same conviction rate as before the EPPO. The higher number of judicial decisions therefore solely drives the increase in conviction rates. We note that there may be reasons to expect future changes in conviction rates, for example due to possible improved management of prosecutions; however, in the absence of relevant estimates, we are not in a position to project any change in conviction rates as a share of total cases brought to court.

In order to calculate the reduced damages of corruption for each Member State and the EU as a whole, we use the predicted conviction rates under EPPO and the corresponding %-reduction in damages, based on the assumption that a ten per cent increase in conviction rates reduces damages by around one per cent. Since the EPPO’s purview would be the protection of EU’s financial interests, we use data on all allocated EU Structural and Investment Funds for the years 2014-2020144 alongside the assumption that around two per cent of these are at risk of corruption,145 to calculate the overall reduction in damages related to EU funds.

### 2.2. EPPO and the Costs of Non-Europe

Table 21 highlights the predicted reduction in the costs of corruption after the establishment of EPPO. Our findings predict that if all Member States established EPPO, around €200m of the EU budget could be recuperated per year. It is important to stress that this estimate is likely to be an upper bound estimate as its calculations are based on the total allocated funds per year for each Member State, but not all of the allocated funds may actually be realised.

---

144 These include the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime & Fisheries Fund (EMFF). Data downloaded from https://cohesiondata.ec.europa.eu/dataset/ESIF-FINANCE-DETAILS/e4v6-qrrq [As of 23 February 2016].

145 Based on an estimation by the European Union (EP 2015j).
Table 20: Actions transferred to Member States and subsequent judicial decisions and convictions before EPPO and after EPPO

<table>
<thead>
<tr>
<th>Member States</th>
<th>Actions transferred to Member States</th>
<th>Actions with judicial decision before EPPO</th>
<th>Convictions as % of actions with judicial decision without EPPO</th>
<th>Actions with judicial decision under EPPO</th>
<th>Predicted convictions under EPPO</th>
<th>Increase of convictions under EPPO compared to before</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>8</td>
<td>4</td>
<td>100%</td>
<td>8</td>
<td>8</td>
<td>100.00%</td>
</tr>
<tr>
<td>Belgium</td>
<td>56</td>
<td>28</td>
<td>64.30%</td>
<td>56</td>
<td>36</td>
<td>100.04%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>37</td>
<td>14</td>
<td>42.90%</td>
<td>37</td>
<td>16</td>
<td>164.55%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>1</td>
<td>0</td>
<td>NA</td>
<td>1</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>23</td>
<td>8</td>
<td>25%</td>
<td>23</td>
<td>6</td>
<td>187.50%</td>
</tr>
<tr>
<td>Denmark</td>
<td>4</td>
<td>3</td>
<td>33.30%</td>
<td>4</td>
<td>1</td>
<td>33.32%</td>
</tr>
<tr>
<td>Estonia</td>
<td>3</td>
<td>1</td>
<td>100%</td>
<td>3</td>
<td>3</td>
<td>200.00%</td>
</tr>
<tr>
<td>Finland</td>
<td>12</td>
<td>12</td>
<td>91.70%</td>
<td>12</td>
<td>11</td>
<td>0.04%</td>
</tr>
<tr>
<td>France</td>
<td>29</td>
<td>12</td>
<td>75%</td>
<td>29</td>
<td>22</td>
<td>141.67%</td>
</tr>
<tr>
<td>Germany</td>
<td>168</td>
<td>114</td>
<td>57%</td>
<td>168</td>
<td>96</td>
<td>47.32%</td>
</tr>
<tr>
<td>Greece</td>
<td>86</td>
<td>26</td>
<td>19.20%</td>
<td>86</td>
<td>17</td>
<td>230.24%</td>
</tr>
<tr>
<td>Hungary</td>
<td>10</td>
<td>1</td>
<td>0%</td>
<td>10</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Ireland</td>
<td>0</td>
<td>0</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Italy</td>
<td>112</td>
<td>37</td>
<td>37.80%</td>
<td>112</td>
<td>42</td>
<td>202.40%</td>
</tr>
<tr>
<td>Latvia</td>
<td>4</td>
<td>0</td>
<td>NA</td>
<td>4</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>9</td>
<td>9</td>
<td>88.90%</td>
<td>9</td>
<td>8</td>
<td>0.01%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>2</td>
<td>1</td>
<td>100%</td>
<td>2</td>
<td>2</td>
<td>100.00%</td>
</tr>
<tr>
<td>Malta</td>
<td>5</td>
<td>0</td>
<td>NA</td>
<td>5</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>29</td>
<td>16</td>
<td>31.30%</td>
<td>29</td>
<td>9</td>
<td>81.54%</td>
</tr>
<tr>
<td>Poland</td>
<td>90</td>
<td>17</td>
<td>35.30%</td>
<td>90</td>
<td>32</td>
<td>429.50%</td>
</tr>
<tr>
<td>Portugal</td>
<td>21</td>
<td>9</td>
<td>66.70%</td>
<td>21</td>
<td>14</td>
<td>133.45%</td>
</tr>
<tr>
<td>Romania</td>
<td>225</td>
<td>128</td>
<td>23.40%</td>
<td>225</td>
<td>53</td>
<td>75.50%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>16</td>
<td>9</td>
<td>0%</td>
<td>16</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2</td>
<td>0</td>
<td>NA</td>
<td>2</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Spain</td>
<td>54</td>
<td>5</td>
<td>0%</td>
<td>54</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Sweden</td>
<td>5</td>
<td>4</td>
<td>100%</td>
<td>5</td>
<td>5</td>
<td>25.00%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>19</td>
<td>13</td>
<td>23.10%</td>
<td>19</td>
<td>4</td>
<td>46.30%</td>
</tr>
</tbody>
</table>

Notes: data based on Olaf and the European Commission. Columns 2 to 5 report the current state of actions transferred to Member States and the corresponding judicial decisions and subsequent convictions taken by each Member State. Columns 6 to 9 report the hypothetical actions and convictions under EPPO. The calculations are based on the assumption that EPPO would bring all actions transferred to a judicial decision under the same conviction rate as before EPPO. The increase in conviction rates is therefore driven by the higher number of judicial decisions. The calculated %-reduction in damages is based on the assumption that a ten per cent increase in conviction rates reduces damages by around one per cent.
Table 21: Predicted annual reduction in the costs of corruption after establishment of EPPO

<table>
<thead>
<tr>
<th>Member State</th>
<th>Allocated EU Funds per year €</th>
<th>At risk of corruption (2%) per year €</th>
<th>% reduction in damages EU Funds with EPPO per year</th>
<th>Lower cost of corruption with EPPO per year €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>703,791,043</td>
<td>14,075,821</td>
<td>10.00%</td>
<td>1,407,582</td>
</tr>
<tr>
<td>Belgium</td>
<td>387,940,381</td>
<td>7,758,808</td>
<td>10.00%</td>
<td>776,226</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1,411,955,775</td>
<td>28,239,116</td>
<td>16.46%</td>
<td>4,646,746</td>
</tr>
<tr>
<td>Cyprus</td>
<td>130,004,633</td>
<td>2,600,093</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>3,457,811,808</td>
<td>69,156,236</td>
<td>18.75%</td>
<td>12,966,794</td>
</tr>
<tr>
<td>Denmark</td>
<td>179,925,789</td>
<td>3,598,516</td>
<td>3.33%</td>
<td>119,903</td>
</tr>
<tr>
<td>Estonia</td>
<td>638,983,212</td>
<td>12,779,664</td>
<td>20.00%</td>
<td>2,555,933</td>
</tr>
<tr>
<td>Finland</td>
<td>541,898,222</td>
<td>10,837,964</td>
<td>0.00%</td>
<td>394</td>
</tr>
<tr>
<td>France</td>
<td>3,826,936,947</td>
<td>76,538,739</td>
<td>14.17%</td>
<td>10,842,988</td>
</tr>
<tr>
<td>Germany</td>
<td>3,982,015,001</td>
<td>79,640,300</td>
<td>4.73%</td>
<td>3,768,824</td>
</tr>
<tr>
<td>Greece</td>
<td>2,915,586,546</td>
<td>58,311,731</td>
<td>23.02%</td>
<td>13,425,693</td>
</tr>
<tr>
<td>Hungary</td>
<td>3,573,460,486</td>
<td>71,469,210</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Ireland</td>
<td>479,947,561</td>
<td>9,598,951</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Italy</td>
<td>6,110,154,574</td>
<td>122,203,091</td>
<td>20.24%</td>
<td>24,733,906</td>
</tr>
<tr>
<td>Latvia</td>
<td>804,843,638</td>
<td>16,096,873</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1,199,258,467</td>
<td>23,985,169</td>
<td>0.00%</td>
<td>300</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>20,023,994</td>
<td>400,480</td>
<td>10.00%</td>
<td>40,048</td>
</tr>
<tr>
<td>Malta</td>
<td>119,040,167</td>
<td>2,380,803</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>246,901,702</td>
<td>4,938,034</td>
<td>8.15%</td>
<td>402,647</td>
</tr>
<tr>
<td>Poland</td>
<td>12,288,151,824</td>
<td>245,763,036</td>
<td>42.95%</td>
<td>105,555,224</td>
</tr>
<tr>
<td>Portugal</td>
<td>3,685,266,285</td>
<td>73,705,326</td>
<td>13.35%</td>
<td>9,835,976</td>
</tr>
<tr>
<td>Romania</td>
<td>4,407,109,242</td>
<td>88,142,185</td>
<td>7.55%</td>
<td>6,654,735</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>2,190,047,277</td>
<td>43,800,946</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>553,894,115</td>
<td>11,077,882</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Spain</td>
<td>5,343,517,819</td>
<td>106,870,356</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>Sweden</td>
<td>521,730,983</td>
<td>10,434,620</td>
<td>2.50%</td>
<td>260,865</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,348,865,927</td>
<td>46,977,319</td>
<td>4.63%</td>
<td>2,175,050</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>200,169,834</strong></td>
</tr>
</tbody>
</table>
3. Costs of Non-Europe: e-procurement

The 2014 ACR identified the potential of the establishment of a fully functioning e-procurement system as an option to reduce corruption. Accordingly, measures in support of wider implementation of e-procurement are an integral part of the 2014 suite of public procurement directives. It is documented that e-procurement can increase transparency and accountability of the procurement process by enhancing relationships between public officials and citizens tracking their activities and improving monitoring and control mechanisms to reduce the potential for corrupt behaviour (Neupane et al. 2012). E-Procurement is seen as tool for reducing corruption and increasing integrity in public procurement systems. Globally there have been concrete attempts to implement full e-procurement systems in South Korea and more recently in Albania (Transparency International 2011). South Korea was one of the first countries globally to implement a full e-procurement in 1997 and is nowadays seen as one of the best practice examples in implementing a system that covers all steps of the procurement process. At that time, the South Korean government sought to reform its complicated, non-transparent and corrupt public procurement system (World Bank 2004). The example of South Korea shows that such a system can improve efficiency (it is estimated that it created around $2.5bn a year in savings) as well as enhancing public trust and reducing corruptive behaviour by reducing the contacts between officials and suppliers (World Bank 2004).

Overall, the empirical evidence on the effectiveness of e-procurement systems is scarce so far. Some examples where e-government initiatives improved levels of corruption are documented for a program implemented in Chile, called ‘ChileCompra’. This was analysed in the Chilean chapter of TI (Garcia-Murillo 2013). An evaluation of the program showed that from 2004 to 2006, perceptions of corruption were lower for government purchases done through ‘ChileCompra’. What is more, some evidence from India reveals the effectiveness from different e-government projects in combatting corruption (Bhatnagar 2009). The results showed that there was a reduction in bribes paid between ten per cent to 50 per cent, depending on the project. Some more recent studies show the effect of e-government on the reduction in corruption using cross-country comparisons. Garcia-Murillo (2013) for instance, finds that government web presence reduces the perceptions of corruption. Mistry & Jalal (2012) investigate the relationship between e-government and corruption in developed and developing countries. Their results suggest that the use of e-government decreases corruption. Specifically, they estimate that a one per cent increase in the e-government development index (EDI) (UN, n.d.) reduces corruption by around 1.16 per cent, whereas corruption is measured by the CPI index.

In what follows, we use a similar approach like Mistry & Jalal (2012) but link the EDI index to the corruption risk index (CRI) introduced in Chapter 2.

3.1. Methodology: e-procurement and corruption

To assess the potential gains of introducing an EU-wide full e-procurement system, we draw on data from the EDI index. The EDI index is provided by the United Nations Public Administration Network, which conducts a bi-annual e-government survey including a section on e-government readiness (UN 2014). The index represents a comparative ranking of countries according to two primary components: (a) the state of e-government readiness; and (b) the extent of e-participation. It is important to stress that the index measures the extent and participation of a country’s e-government and hence not only the e-procurement system. We therefore have to assume implicitly that a Member States’ achieved level in the EDI index
corresponds to its (unobserved) e-procurement readiness and participation. Nevertheless, South Korea, the country that serves as the best practice example in e-procurement is ranked number one in the EDI index, therefore we assume that there is at least a strong correlation between the measure of e-government and e-procurement. Given that South Korea is seen as best practice example in e-procurement, we utilise the EDI index for South Korea as benchmark and calculate the difference of each Member States index level to the one of South Korea. This difference gives us an indication or proxy on how far away the current system in a Member States is from the realisation of a full e-procurement system.

We make use of the publicly available yearly cross-sections of the EDI index for the years 2010, 2012 and 2014 (UN, n.d.) and link this information to the PP database outlined in Chapter 2. We aggregate information from the PP database on the country level (average CRI index, average share of contracts that included EU funds and the average number of contract) for the years 2010, 2012 and 2014. In addition we make use of information provided by the QoG database, which we used already in Chapter 2 to analyse the costs of corruption at the EU-level (GDP per capita, share of women in parliament, level democratisation measured by polity2 variable, press freedom, presidentialism and the gini-index as measure of inequality). Using this data we estimate with OLS the correlation between average level of corruption risk in public procurement in each Member State and the EDI index using the following equation:

\[ CRI_{it} = \beta_1 + \beta_2 EDI_{it} + \beta_3 X_{it} + \gamma_t + \epsilon_{it} \]  \hspace{1cm} (4)

Where \( CRI_{it} \) represents the average corruption risk in public procurement in year \( t \) and Member State \( i \). \( EDI_{it} \) corresponds to the EDI index and \( X_{it} \) represents a vector of control variables, including GDP per capita, the average share of contracts including EU funds, the average number of procurement contracts, the share of women in parliament, presidentialism, personalism, press freedom (see Chapter 2 for more details) and the level of democracy (measured by polity2). \( \gamma_t \) represent year effects.

The results of estimating equation (4) with OLS are presented in Table 22. Column 1 reports the association between the EDI index and the CRI index at the Member State level. It shows a negative relationship meaning that the higher a country is in the EDI index, the lower the levels of corruption risk in public procurement. Column 2 reports the results from a model including a number of control variables. The estimated parameter is lower in magnitude but still statistically significantly and negative. The finding suggests that a one-unit increase of the EDI index reduces the CRI index (at the Member State level) by 0.29.\(^{147}\)

In what follows, we apply this 0.29 estimate to predict how much lower the corruption risk in public procurement potentially could be in each Member State with the establishment of a full e-procurement system. We use the distance from the EDI index of South Korea for each Member State as proxy on how far away each Member States system is from a full e-procurement system.

Table 4-6 reports the level of the corresponding EDI index for each of the 28 Member States and South Korea, which serves as the best-practice benchmark. Using the assumptions outlined above, we multiply the distance between a Member States’ EDI index and the one of South Korea with the average negative correlation between the EDI and the CRI index of 0.29 and

\(^{146}\) We use the three years 2010, 2012 and 2014 for the analysis.

\(^{147}\) Both indices, EDI and CRI are on the interval between [0,1].
hence derive the predicted reduction in the CRI index with a full e-procurement system. Table 23 highlights that this predicted reduction in CRI corruption levels would be highest in the Member States Bulgaria, Romania, Cyprus, Czech Republic, Slovakia and Malta. In order to predict the reduction in losses in EU public procurement we feed back the new CRI level into the calculations made in Chapter 2.

Table 22: correlation between e-government index (EDI) and public procurement corruption risk index (CRI)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>estimation method</td>
<td>OLS</td>
<td>OLS</td>
</tr>
<tr>
<td>dependent variable</td>
<td>CRI Index (average by Member State and year)</td>
<td>CRI Index (average by Member State and year)</td>
</tr>
<tr>
<td>EDI index</td>
<td>-0.4932</td>
<td>-0.2996</td>
</tr>
<tr>
<td></td>
<td>(0.095)**</td>
<td>(0.146)**</td>
</tr>
<tr>
<td>Observations</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.2084</td>
<td>0.5669</td>
</tr>
</tbody>
</table>

Notes: (Panel-)Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.10. The results are estimated on a sample of all EU-28 Member States and the years 2010, 2012 and 2014. The model in column 1 includes only the EDI index as independent variable. The model in column 2 controls for the level of GDP per capita, press freedom, share of women in parliament, presidentialism, personalism, level of democracy (polity2), the number of public procurement contracts and the share of contracts where EU funds are included. In addition, the model in column 2 includes a regional dummy (for EU15 countries) and year fixed effects.

3.2. E-procurement and the Costs of Non-Europe

Table 24 reports the predictions of applying the expected reduction in corruption due to the establishment of a full EU-wide e-procurement system to the corruption risk index (CRI) introduced in Chapter 2. We calculate how much we would expect the CRI index to be reduced in light of such a procurement system.

In essence, our findings predict that the implementation of a full e-procurement system could reduce the costs of corruption risk in public procurement by around €924m annually which corresponds to a reduction of almost 20 per cent of the current costs.

Table 24: Predicted reduction in the corruption levels with the introduction of e-procurement

<table>
<thead>
<tr>
<th>Member State</th>
<th>E-Government Index 2014</th>
<th>% Diff to Korea as benchmark</th>
<th>predicted reduction in CRI index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>0.7912</td>
<td>0.1550</td>
<td>0.0449</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.7564</td>
<td>0.1899</td>
<td>0.0551</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>0.5421</td>
<td>0.4041</td>
<td>0.1172</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.6282</td>
<td>0.3181</td>
<td>0.0922</td>
</tr>
<tr>
<td>Cyprus</td>
<td>0.5958</td>
<td>0.3505</td>
<td>0.1016</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.6070</td>
<td>0.3393</td>
<td>0.0984</td>
</tr>
</tbody>
</table>
### Annex II: Corruption

#### Table 24: Predicted reduction in the corruption levels with the introduction of e-procurement

<table>
<thead>
<tr>
<th>Member State</th>
<th>CRI index before e-procurement</th>
<th>CRI index after e-procurement</th>
<th>Cost Total (EURO) per year before e-procurement</th>
<th>Cost Total (EURO) per year after e-procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>0.239</td>
<td>0.194</td>
<td>33,158,751</td>
<td>26,992,734</td>
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<tr>
<td>Belgium</td>
<td>0.174</td>
<td>0.119</td>
<td>43,309,315</td>
<td>29,698,149</td>
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<tr>
<td>Bulgaria</td>
<td>0.326</td>
<td>0.209</td>
<td>13,839,039</td>
<td>8,856,914</td>
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<td>Cyprus</td>
<td>0.58</td>
<td>0.488</td>
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<td>0.338</td>
<td>0.236</td>
<td>399,601,343</td>
<td>279,225,663</td>
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</table>

**Notes:** The assumptions behind table entries is that South Korea serves as best practice example in terms of e-procurement and that we can infer directly from the level of the EDI-index to how far a Member State is away from having a similar e-government system like South Korea. This implicitly implies the assumption that the rank in the EDI index reflects the level of the e-procurement system. What is more, the predicted reduction in corruption is based on the elasticity that one per cent increase in the EDI index reduces corruption by 1.16 per cent.

<table>
<thead>
<tr>
<th>Member State</th>
<th>E-Government Index 2014</th>
<th>% Diff to Korea as benchmark</th>
<th>predicted reduction in CRI index</th>
</tr>
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<td>0.8162</td>
<td>0.1300</td>
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<td>0.8180</td>
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<td>Finland</td>
<td>0.8449</td>
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<td>0.0294</td>
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<td>France</td>
<td>0.8938</td>
<td>0.0524</td>
<td>0.0152</td>
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<td>Germany</td>
<td>0.7864</td>
<td>0.1598</td>
<td>0.0464</td>
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<td>Greece</td>
<td>0.7118</td>
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<td>0.0680</td>
</tr>
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<td>Hungary</td>
<td>0.6637</td>
<td>0.2825</td>
<td>0.0819</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.7810</td>
<td>0.1652</td>
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</tr>
<tr>
<td>Italy</td>
<td>0.7593</td>
<td>0.1869</td>
<td>0.0542</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.7178</td>
<td>0.2285</td>
<td>0.0663</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.7271</td>
<td>0.2191</td>
<td>0.0636</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.7591</td>
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<tr>
<td>Malta</td>
<td>0.6518</td>
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<td>0.1111</td>
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<td>0.6148</td>
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<tr>
<td>Spain</td>
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<td>0.1053</td>
<td>0.0305</td>
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<tr>
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<td>0.8225</td>
<td>0.1237</td>
<td>0.0359</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.8695</td>
<td>0.0768</td>
<td>0.0223</td>
</tr>
</tbody>
</table>

The best practice benchmark is the Republic of Korea with an EDI index of 0.9462.
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<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
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<tbody>
<tr>
<td>Germany</td>
<td>0.313</td>
<td>0.215</td>
<td>140,316,050</td>
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<td>27,078,887</td>
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<tr>
<td>Spain</td>
<td>0.251</td>
<td>0.222</td>
<td>251,734,281</td>
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<tr>
<td>Finland</td>
<td>0.327</td>
<td>0.312</td>
<td>34,727,318</td>
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<tr>
<td>France</td>
<td>0.224</td>
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<td>72,110,970</td>
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<tr>
<td>Greece</td>
<td>0.292</td>
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<td>77,110,065</td>
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<td>Croatia</td>
<td>0.584</td>
<td>0.502</td>
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<tr>
<td>Hungary</td>
<td>0.259</td>
<td>0.211</td>
<td>243,329,958</td>
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<td>Lithuania</td>
<td>0.498</td>
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<tr>
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<tr>
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<tr>
<td>Malta</td>
<td>0.382</td>
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<td>706,756</td>
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<tr>
<td>Netherlands</td>
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<td>Poland</td>
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<tr>
<td>Portugal</td>
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<tr>
<td>Romania</td>
<td>0.449</td>
<td>0.353</td>
<td>368,013,805</td>
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<td>0.147</td>
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<td>39,443,543</td>
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<td>0.316</td>
<td>129,980,618</td>
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<tr>
<td>United Kingdom</td>
<td>0.305</td>
<td>0.283</td>
<td>1,025,876,827</td>
</tr>
<tr>
<td><strong>EU-28 Total</strong></td>
<td><strong>0.305</strong></td>
<td><strong>0.283</strong></td>
<td><strong>5,335,485,098</strong></td>
</tr>
</tbody>
</table>

4. Caveats and limitations

The measurement of the potential benefits of more action at EU-level is marked by significant challenges surrounding the assumptions made in calculating the predicted cost savings of three different options, a CVM-like mechanism, the establishment of the EPPO and the potential benefits of fully implemented EU-wide e-procurement system. Wherever possible we seek to make assumptions that sound plausible in the context of the subject and are potentially validated by previous research. Nevertheless, the predictions made in this chapter are only as valid as the assumptions made in order to derive them.

Furthermore, the chapter focuses primarily on the potential benefits of further action at EU-level in the area of corruption, but in analysing the potential gains implies there is no detailed consideration of the direct or indirect costs of further action at EU-level. In essence, for each of the three options we calculate the potential gross gains per year, but there would be costs of the implementation. We were not able to fully assess the costs of implementation at this stage. This should be taken into consideration when interpreting the results of this study. When conducting a full assessment of the costs and benefits of further EU-action and its added value, direct and indirect costs of implementation and benefits should be taken into account.
CHAPTER 5 REPORT SUMMARY AND CONCLUSIONS

This study sought to quantify the economic, social and political costs of corruption in the European Union, investigate gaps and barriers in the existing regulatory framework that hinder the effectiveness of measures to combat corruption in the EU and identify the potential for action at EU level that might add value and address the challenges identified.

The focus of the study was on anti-corruption measures relevant to the LIBE Committee of the European Parliament. The research team employed a mix of quantitative (compilation of bespoke data set and econometric modelling) and qualitative (review of relevant documents and interviews with 17 stakeholders) methods. The findings of the study are summarised below.

1. The costs of corruption in the EU

The study examined a variety of existing high-level estimates of the costs of corruption at the EU-level and globally. These estimates are based on methodologies that are not always clearly documented, which means that it is difficult to understand the underlying components taken into account in generating estimates. The added value of this study is the production of a new estimate of the costs of corruption that is based on sound methodologies (previously applied in the academic literature) which have been clearly documented (see Chapter 2).

Under three scenarios (which differ in the assumption made about the scale of reductions in the level of corruption feasible for Member States in the short, medium and long term), our findings suggest that corruption costs the EU between €179bn to €990bn in GDP terms on an annual basis (depending on the corruption measure applied). Unlike some of the existing high-level cost of corruption estimates, these figures include both direct and indirect effects of corruption. What is more, the findings suggest that corruption has significant social costs (more unequal societies, higher levels of organised crime and weaker rule of law) and political costs (lower voter turnout in national parliamentary elections) and lower trust in EU institutions.

When looking in more detail at a specific sub-sector of the EU economy and public procurement, the findings of the empirical analysis further suggest that the cost of corruption risks in EU public procurement are around €5bn per year overall, including most sub-sectors of public procurement and contracts of all EU Member States.

2. What are the gaps and barriers in the existing regulatory framework that hinder the effectiveness of measures to combat corruption in the European Union?

While anti-corruption policy is primarily a Member State competency, the EU has some scope to act in the spheres of the establishment of the area of freedom, security and justice. The fight against corruption has featured as an important element of EU justice and home affairs policy. There are a range of anti-corruption measures applicable to EU Member States and EU institutions.
The EU has adopted a number of legislative provisions in key conventions and directives (described in Chapter 3, Section I). Additionally, OECD and UN conventions have addressed the issue of corruption. The effectiveness of existing legislation is limited by several factors. In some instances, international measures have not been properly transposed by some Member States. In other cases, existing measures are not of binding character or there are limits to their enforceability. In instances where Member States have formally acted in accordance with international norms and recommendations, there is a substantial variability in the extent to which these efforts are effective. This may be due to differences in the quality of implementation and enforcement at the Member State level, which in turn may be a reflection of differences in factors such as political will or administrative capacity. In some cases, such as the recent procurement directives, it is too early to assess their effectiveness given the recent nature of their adoption. In addition, some legislative gaps persist, such as the lack of an EU-wide system of whistleblower protection or the absence of a harmonised definition of a public official.

Beyond legislation, a number of monitoring mechanisms exist which aim to record the extent to which Member States laws and institutions are in line with good practice in the fight against corruption. These mechanisms largely rely on voluntary participation by Member States and are intended to improve standards by providing guidance and encouraging reform. The three most high-profile monitoring mechanisms are the EU ACR, the Cooperation and Verification Mechanism, and the EU Justice Scoreboard. Additionally, the Council of Europe hosts GRECO, which also includes Member State-level monitoring. These mechanisms are generally considered to have contributed to the effectiveness of the fight against corruption, although a number of areas for improvement are identified by this study – based on a review of literature and interviews with expert stakeholders. One notable limitation is that corruption at the EU level (i.e. within EU institutions) is not subject to monitoring either as part of the EU Anticorruption Report or GRECO.

3. Is there a potential for action at EU level and can the gains for these measures be quantified?

Our study identifies the following possible actions that could lead to potential benefits for the EU as a whole:

1. Make use of infringement proceedings against Member States who have not implemented EU law in relation to the fight against corruption.
2. Support new legislation to harmonise protection for whistleblowing within Member States and/or provide protections to whistleblowers within European Institutions.
3. Support new legislation to define a public official.
4. Make improvements to the ACR.
5. Extend aspects of the Cooperation and Verification Mechanism to other Member States.
6. Make improvements to the EU Justice Scoreboard.
7. Take steps for the EU to accede to GRECO.
8. Establish a European Public Prosecutor’s Office.
As with the limitations of current measures, these possible areas for action were identified based on interviews and a literature review.

For two of these options (extend aspects of the Cooperation and Verification Mechanism to other Member States and establish a European Public Prosecutor’s Office) we were able to undertake quantification of the possible gains from more action at EU-level. In addition, we undertake an estimation of the possible gains from a common EU approach to E-procurement, as envisaged under the 2014 public procurement directives.

While every care was made to source the best available data, the evidence base on corruption is limited and there are little relevant and good-quality data on which to build robust calculations. The estimates provided are necessarily based on a series of assumptions about key factors that will mediate the impact of these measures.

We predict that applying aspects of a CVM-like mechanism to five more Member States (it is currently applied only to Romania and Bulgaria) could reduce the costs of corruption in GDP terms by around €70bn annually (or around eight per cent of the overall costs). According to our calculations, a large part of this reduction would come from applying aspects of the CVM to Italy. If the measure were only applied to Croatia (the most recently acceding Member State), the potential gains would be around €2 bn previously lost GDP per annum. Again, we reiterate here that these estimates are highly dependent on the underlying assumptions, which are clearly set out in Chapter 4, Section I.

The establishment of EPPO could reduce the costs of corruption related to EU funds by around €0.2bn annually. This is based on a number of assumptions - importantly, that all Member States would sign up to an EPPO. Accordingly, this estimate should be treated as an upper bound estimate - indicating the gains that could be made in a best case scenario. Other key assumptions and limitations of this estimate are explained in Chapter 4, Section II.

Lastly, our estimates suggest that the implementation of a full EU-wide e-procurement system could reduce the costs of corruption risk in public procurement by around €920m each year. The method underlying this approach is explained in Chapter 4, Section III and uses South Korea as a best practice example of a country that has an established and fully working e-procurement system.

4. Implications and unanswered questions

This study has investigated the cost of non-europe in relation to corruption. Compared to other policy areas, corruption, being an illicit activity, is an extremely challenging field to apply the cost of non-europe methodology. The EU has a limited competence to act to harmonise Member States law in relation to corruption, and even where EU law exists and has been transposed, the implementation of anti-corruption depends on a complex range of political, legal, cultural and institutional factors at the Member State level. Additionally, there is very little conclusive evidence about the effectiveness of law and policy measures in reducing corruption.

Throughout this study we have explained the limitations of our approach and detailed the methods applied in calculating the costs of corruption and the potential gains from increased...
action by the EU. It is hoped that if more data become available and better indicators emerge, future researchers will be able to build on the estimates produced in this paper to improve understanding about how corruption can better be tackled at Member State and EU level.
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## Appendix A: Provisions of Article 82 and 83 TFEU and summary of costs of corruption estimates

### Table A-25. Summary of provisions of Article 82 and Article 83 of TFEU

<table>
<thead>
<tr>
<th>Article, TFEU</th>
<th>Competence</th>
<th>Form of action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art. 82, para 1</td>
<td>Measures to promote cooperation between judicial authorities of the Member State in relation to proceedings in criminal matters</td>
<td>directives, regulations, decisions and more</td>
</tr>
<tr>
<td>Art. 82 para 2</td>
<td>approximation competence in the field of criminal procedure law</td>
<td>directives</td>
</tr>
<tr>
<td>Art. 83 para 1</td>
<td>approximation competence in the field of substantial criminal law</td>
<td>directives</td>
</tr>
<tr>
<td>Art. 83 para 2</td>
<td>Approximation competence in the field of substantial law for areas which have been subject to harmonisation measures</td>
<td>directives</td>
</tr>
</tbody>
</table>

### Table A-2: overview of existing high-level estimates of the cost of corruption

<table>
<thead>
<tr>
<th>Cost of Corruption (annual):</th>
<th>World Bank</th>
<th>World Economic Forum</th>
<th>European Commission</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 trillion worldwide</td>
<td>5% global GDP or $2.6 trillion</td>
<td>€120bn at EU-level</td>
<td></td>
</tr>
</tbody>
</table>

**Methodology/Description:**
- **World Bank:** Figure based on 2001-2002 worldwide surveys of enterprises and estimation of bribes paid by household users of public services (from the WBI governance and anti-corruption surveys). Does not include the extent of embezzlement of public funds (from central and local budgets), or from theft (or misuse) of public assets.
- **World Economic Forum:** Figure probably based on WB estimate of $1 trillion and the assumption that the cost of bribery was around 3.5-5% of global GDP. The WEF highlights that estimates suggest the cost of corruption amounts to more than 5% of global GDP (US$2.6 trillion) with more than US$1 trillion paid in bribes each year.
- **European Commission:** Figure is based on estimates by specialised institutions and bodies, such as the International Chamber of Commerce, Transparency International, UN Global Compact, World Economic Forum, Clean Business is Good Business, 2009, which suggest that corruption amounts to 5% of GDP at world level.

**Caveats/Limitations:**
- **World Bank:** Estimate only includes bribes paid; not includes the extent of embezzlement of public funds (from central and local budgets), or from theft (or misuse) of public assets. Furthermore, no indirect costs of corruption included.
- **World Economic Forum:** the methodology how estimate was calculated is not well documented\(^{148}\).
- **European Commission:** the methodology how estimate was calculated is not well documented; does not include indirect effects and magnitude of the estimate has been questioned by recent research (Mungiu-Pippidi (2013)).

Appendix B: Details on our approach to literature review

The overarching approach to the literature review was based on a snowballing strategy. The starting point for the identification of relevant sources was a set of key documents outlined in the terms of reference, complemented by sources identified in consultation with the commissioning team and our senior advisor.

As part of the review of the initial set of literature, bibliographies of these sources were searched for additional relevant material. This step was subsequently repeated for newly identified sources. In addition, the research team also reviewed materials suggested by expert interviewees.
Appendix C: Descriptive evidence – corruption indicators and the economic, social and political costs

Figure C-1: Corruption and level of output (GDP per capita) EU-28 Member State

Note: average values 1995-2014.
Figure C-2: Corruption and the rule of law - EU-28 Member State

Note: average values 1995-2014.
Figure C-3: Corruption and level of output (rule of law) EU-28 Member State

Note: average values 1995-2014.
Appendix D: Control variables used in the empirical analysis to assess costs of corruption

Table D-1: Variables used in estimating the economic costs of corruption

<table>
<thead>
<tr>
<th>Type of cost</th>
<th>Outcome variable</th>
<th>Source outcome variable</th>
<th>Control variables</th>
<th>Source control variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>log GDP per capita (PPP, constant 2005)</td>
<td>QoG (WDI)</td>
<td>Secondary School Enrolment Rate</td>
<td>WDI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Life Expectancy at birth</td>
<td>WDI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Initial log GDP (1985)</td>
<td>WDI</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Government expenditure (% GDP)</td>
<td>WDI</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Trade openness (% GDP)</td>
<td>WDI</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Added value manufacturing (% GDP)</td>
<td>WDI</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Added value service (% GDP)</td>
<td>WDI</td>
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<td></td>
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<td></td>
<td>Income share 20% highest</td>
<td>WDI</td>
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<td></td>
<td>Gross capital formation (% GDP)</td>
<td>WDI</td>
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<td></td>
<td></td>
<td></td>
<td>Level of democracy (polity 2)</td>
<td>QoG</td>
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<td></td>
<td>Freedom of press score (Freedom House)</td>
<td>QoG</td>
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<td></td>
<td>Personalism (Johnson &amp; Wallack)</td>
<td>QoG</td>
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<td></td>
<td>Proportion women lower house (IPU)</td>
<td>QoG</td>
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<td></td>
<td></td>
<td></td>
<td>Presidentialism</td>
<td>DPI</td>
</tr>
<tr>
<td>Economic</td>
<td>growth genuine investment (genuine wealth per capita)</td>
<td>based on calculations by Aidt (2010) using data from WDI ('adjusted net savings')</td>
<td>Secondary School Enrolment Rate</td>
<td>WDI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Life Expectancy at birth</td>
<td>WDI</td>
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<td>Initial log GDP (1985)</td>
<td>WDI</td>
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<td></td>
<td>Income share 20% highest</td>
<td>WDI</td>
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<td></td>
<td></td>
<td>Trade openness (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Level of democracy (polity 2)</td>
<td>QoG</td>
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<td>Freedom of press score (Freedom House)</td>
<td>QoG</td>
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<td></td>
<td>Personalism (Johnson &amp; Wallack)</td>
<td>QoG</td>
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<td></td>
<td>Proportion women lower house (IPU)</td>
<td>QoG</td>
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<td></td>
<td>Presidentialism</td>
<td>DPI</td>
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</tbody>
</table>
Table D-2: Variables used in estimating the social costs of corruption

<table>
<thead>
<tr>
<th>Type of cost</th>
<th>Outcome variable</th>
<th>Source outcome variable</th>
<th>Control variables</th>
<th>Source control variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inequality (Gini-index; Income share 20% highest)</td>
<td>Secondary School Enrolment Rate</td>
<td>WDI</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Life Expectancy at birth</td>
<td>WDI</td>
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<td></td>
<td>Government expenditure (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Trade openness (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Gross capital formation (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Level of democracy (polity 2)</td>
<td>QoG</td>
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<tr>
<td></td>
<td>Freedom of press score (Freedom House)</td>
<td>QoG</td>
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<td></td>
<td>Personalism (Johnson &amp; Wallack)</td>
<td>QoG</td>
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<tr>
<td></td>
<td>Proportion women lower house (IPU)</td>
<td>QoG</td>
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<tr>
<td></td>
<td>Presidentialism</td>
<td>DPI</td>
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<tr>
<td>Social</td>
<td>Secondary School Enrolment Rate</td>
<td>WDI</td>
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<td></td>
<td>Life Expectancy at birth</td>
<td>WDI</td>
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<td></td>
<td>Government expenditure (% GDP)</td>
<td>WDI</td>
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<td></td>
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<td></td>
<td>Trade openness (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Gross capital formation (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Level of democracy (polity 2)</td>
<td>QoG</td>
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<td>Freedom of press score (Freedom House)</td>
<td>QoG</td>
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<td></td>
<td>Personalism (Johnson &amp; Wallack)</td>
<td>QoG</td>
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<td>Proportion women lower house (IPU)</td>
<td>QoG</td>
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<td></td>
<td>Presidentialism</td>
<td>DPI</td>
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<tr>
<td>Organised Crime</td>
<td>Secondary School Enrolment Rate</td>
<td>WDI</td>
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<td>Life Expectancy at birth</td>
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<td>Level of democracy (polity 2)</td>
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<td>Freedom of press score (Freedom House)</td>
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<td>Personalism (Johnson &amp; Wallack)</td>
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<td>Proportion women lower house (IPU)</td>
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<td>Presidentialism</td>
<td>DPI</td>
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<td>log GDP per capita</td>
<td>WDI</td>
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<tr>
<td></td>
<td>Income share 20% highest</td>
<td>WDI</td>
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</tbody>
</table>
### Table D-3: Variables used in estimating the political costs of corruption

<table>
<thead>
<tr>
<th>Type of cost</th>
<th>Outcome variable</th>
<th>Source outcome variable</th>
<th>Control variables</th>
<th>Source control variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>Voter Turnout (parliamentary and EU parliament elections)</td>
<td>IDEA</td>
<td>Electoral System type (PR, mixed)</td>
<td>Electoral System Design database</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Compulsory voting law</td>
<td>own grouping</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Secondary School Enrolment Rate</td>
<td>WDI</td>
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<td></td>
<td>Life Expectancy at birth</td>
<td>WDI</td>
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<td></td>
<td>Level of democracy (polity 2)</td>
<td>QoG</td>
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<td></td>
<td>Freedom of press score (Freedom House)</td>
<td>QoG</td>
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<td>Personalism (Johnson &amp; Wallack)</td>
<td>QoG</td>
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<td></td>
<td>Proportion women lower house (IPU)</td>
<td>QoG</td>
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<td></td>
<td></td>
<td>Presidentialism</td>
<td>DPI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total population</td>
<td>WDI</td>
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<td></td>
<td></td>
<td></td>
<td>Income share 20% highest</td>
<td>WDI</td>
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<td></td>
<td></td>
<td>Government expenditure (% GDP)</td>
<td>WDI</td>
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<td></td>
<td>Inflation</td>
<td>WDI</td>
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<td></td>
<td></td>
<td></td>
<td>Share voters age over 65</td>
<td>QoG</td>
</tr>
</tbody>
</table>

|Trust in political institutions (EU commission, EU parliament, EU, national government) | Eurobarometer | Secondary School Enrolment Rate | WDI |
|                                                                                      |                | Life Expectancy at birth | WDI |
|                                                                                      |                | Level of democracy (polity 2) | QoG |
|                                                                                      |                | Freedom of press score (Freedom House) | QoG |
|                                                                                      |                | Personalism (Johnson & Wallack) | QoG |
|                                                                                      |                | Proportion women lower house (IPU) | QoG |
|                                                                                      |                | Presidentialism | DPI |
|                                                                                      |                | Total population | WDI |
|                                                                                      |                | Income share 20% highest | WDI |
|                                                                                      |                | Government expenditure (% GDP) | WDI |
|                                                                                      |                | Inflation | WDI |
|                                                                                      |                | Trust in political parties | Eurobarometer |
Appendix E: Our approach to stakeholder interviews

As part of our methodological approach, we conducted a series of interviews with key informants representing policy professionals, members of interest groups and researchers. The interviewed policy professionals included representatives of EU institutions and other international organisations.

An initial group of targeted interviewees was developed by the research team based on the team’s existing professional networks and initial literature review and refined following recommendations from the commissioning team. Additional potential interviewees were identified throughout the course of the ongoing literature review and on the basis of recommendations from interviewed key informants.

Each potential interviewee was sent an invitation along with a letter of representation provided by the European Parliament, followed by up to two reminder emails as necessary. Interviews were semi-structured, following a standard interview topic guide (presented below). Members of the research team took notes during the conversation and verified captured information as needed by consulting a recording of the interview.

Due to the limited number of interviews conducted, no qualitative analysis software was used in analysing the data collected.

Interview template

Role of interviewee
- Could you please describe your current role and how it fits within anti-corruption work in the EU

Cost assessments
- What assessments of the economic, social and political cost of corruption at European level are you familiar with?
- What assessments do you find most useful? Why?
- What is your view of the scope of the assessments? Are there any aspects of corruption that fall outside of the scope of these assessments but, in your opinion, should have been included?
- What is your view of the methodological approaches taken by these assessments? Are there any aspects that are particularly helpful in trying to capture the burden of corruption? Are there any approaches that you find problematic? Why?

Corruption in Member States

Effectiveness of EU internal corruption monitoring mechanisms
- What do you think are the most important EU internal corruption monitoring mechanisms? Why, what are their main strengths and weaknesses?
- How could these tools be made more effective? What are the barriers to making these tools more effective?
[Prompt or a follow-up question somewhere here, but also very much applicable to the sections below: We are talking about the EU but would be interested in hearing your opinion on the work of non-EU institutions, such as CoE/GRECO and OECD]

Gaps and barriers in the existing EU legislation
- Are there any gaps and barriers in the existing EU legislation on combatting corruption?
- What is the reason for the existence of these gaps?
- What is the impact of the existence of these gaps? What more could be achieved if these gaps did not exist?
- Do these gaps predominantly pertain to/affect a subset of Member State, policy areas and sectors? If so, which ones?

Gaps in the implementation of EU legislation in Member States' law
- Are there any gaps and barriers in the way the existing EU legislation on combatting corruption is implemented in Member State law?
- What is the reason for the existence of these gaps? Are there any barriers preventing more effective implementation?
- What is the impact of the existence of these gaps? What more could be achieved if these gaps did not exist?
- Do these gaps predominantly pertain to/affect a subset of Member State, policy areas and sectors? If so, which ones?

Gaps in the implementation of EU legislation in Member States’ practice
- Are there any gaps in the way the existing EU legislation on combatting corruption is implemented in Member State law?
- What is the reason for the existence of these gaps? Are there any barriers preventing more effective implementation?
- What is the impact of the existence of these gaps? What more could be achieved if these gaps did not exist?
- Do these gaps predominantly pertain to/affect a subset of Member State, policy areas and sectors? If so, which ones?

Current and planned initiatives at EU level
- Are you aware of any current or planned initiatives to improve the fight against corruption at the EU level? If so, please describe
- What do you think is their likely impact? Why? Is the impact likely to differ by sectors/policy areas?
- What is needed to make these initiatives as effective as possible?

Other policy options
- Are there any (other) policy options for improving the fight against corruption you would recommend?
What is the evidence of their effectiveness? What is your opinion of their effectiveness? Does this vary across sectors/policy areas?

What are the barriers to their adoption and effective implementation?

What factors could help their adoption and effective implementation?

What is the cost associated with the introduction and implementation of these options?

Could you comment on the feasibility, acceptability, effectiveness, barriers and enablers of the following policy options. [note: it’s possible that the options below will have already been covered by the discussion above]:

- [Option #1] Improving the implementation of EU and non-EU (i.e. UN, CoE and OECD) instruments for combatting corruption.
- [Option #2] Possibilities of enhancing mechanisms for combatting corruption within EU Member States, institutions, bodies, offices and agencies, including through the EU accession to GRECO.
- [Option #3] Possibilities for improving the methodology and effectiveness of EU internal corruption monitoring mechanisms (EU ACR and Cooperation and Verification Mechanism).
- [Prompts: What is your assessment of the CVM and its effectiveness? Regardless of political constraints, would this tool be applicable to other Member State? Would that help fight against corruption in the EU? Is its wider adoption politically feasible?]
- [Option #4] Adopting and amending legislative and policy instruments sanctioning offences related to corruption at EU level both preventive and repressive tools against corruption should be considered in these regards, including enhanced witness/whistleblower protection.
- [Option #6] Adopting specific actions with regard to sectors vulnerable to corruption. [Please specify]

**EU Added Value**

- What, if any, is the potential added value resulting from the EU’s role in combatting corruption compared with what could be achieved by Member States at national and/or regional levels?
- Has this added value manifested itself yet? How? If not, why not?
- In what areas and policy options discussed earlier is EU action the most likely to add value? Why?

**Corruption at the EU level**

- Are you aware of any assessments of the extent of corruption at EU institutions? If not, in your opinion, how serious a problem is this and what are its drivers?
- In terms of policy response, does corruption at the EU level differ from that at the Member State level? If so, what are the specificities of corruption at the EU level and their implication for policy responses?
- [Prompt: Are there any gaps in pertinent legislation or its implementation with respect to corruption at the EU level that were not covered in our discussion on corruption at the Member State level?]
- Are you aware of any assessments of the extent to which EU funds are being misappropriated? If not, in your opinion, how serious a problem is this and what are its drivers?
- How well are EU policies and actions suited to combatting this phenomenon? If not well, how could they be improved?

**Sectoral questions: local and regional public procurement**
- As part of our project, we would like to pay special attention to public procurement, particularly at the regional and local level. Are you familiar with any estimates of the extent of the phenomenon? If not, how big is the issue in your opinion?
- In terms of policy response, does local and regional procurement differ from other sectors? If so, what are the specificities of corruption at the EU level and their implication for policy responses?
- [Prompts: Are some of the issues we have discussed so far more or less applicable and relevant to local and regional public procurement? What are the most important gaps in legislation and/or practice?]
- One of the areas falling under public procurement is waste management. Is there anything specific about issues surrounding the procurement of waste management you would like to highlight?
- Can you comment on the health impacts of corruption in the procurement of waste management services?
- [Prompts: What are the mechanisms through which the health impacts manifest themselves? Do they affect predominantly certain geographical areas/population groups? How best to mitigate them?]

**Closing questions**
- Are there any existing publications you would recommend the research team review?
- Are there any other experts in the field of corruption you would recommend we get in touch with?
- Is there anything else you would like to add?
Appendix F: Ratification of the United Nations Convention against Corruption, Transposition of the Council framework decision on combating corruption in the private sector, existence of national anti-corruption strategies within EU Member States

<table>
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\(^{149}\) UNODC (n.d.)

\(^{150}\) Information in this column is primarily based on a review of country reports accompanying the 2014 EU Anticorruption Report.

\(^{151}\) As part of national strategy for the fight against crime.

\(^{152}\) Not fully transposed yet.

\(^{153}\) Partly transposed provisions pertaining to the liability of legal persons.

\(^{154}\) Provisions covering the offering of a bribe or an undue advantage not transposed.
This research paper identifies the costs of organised crime and corruption in social, political and economic terms at aggregate European Union level and examines the potential benefits of more concerted action at EU level compared to lack of action, or action by Member States alone.