ADDRESSING THE THREAT OF FRAUD AND CORRUPTION IN PUBLIC PROCUREMENT

REVIEW OF STATE OF THE ART APPROACHES

Compendium

CENTER FOR
THE STUDY OF
DEMOCRACY

The present compendium of selected best practices addresses the threat of fraud and corruption from multiple perspectives, with the underlying purpose of providing practitioners from Romania and Greece with a set of state of the art approaches for addressing the threat of fraud and corruption in the complex multi-layered national public procurement systems.

This publication is based on ideas presented at the international seminar *EU's Financial Interests under Threat: New Approaches in Assessing the Risks from Public Procurement and EU Funds Fraud*, organised on 31 October – 1 November 2013 in Sofia, with the support of the European Anti-Fraud Office (OLAF).

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LIST OF ABBREVIATIONS

A&Es	Architecture and Engineering Proposals
JA	Assistant Inspector General for Auditing
AICPA	Auditing Standards Board of the American Institute of Certified Public Accountants
avg_TPI	Average Total Performance Index
BLIs	Base-Line Indicators
CPIs	Compliance/Performance Indicators
OLAF	European Anti-Fraud Office
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECRA	Extended crime risk assessment
GCC	General Conditions of Contracts
GSA	General Services Administration
IS	Initial Screening
NFCs	Italian National Frame Contracts
LPP	Law on Public Procurement
LCR_c	Legislative Crime Risk Index
LCT_c	Legislative Crime Threat Index
MV	Market Vulnerability Index
MAPS	Methodology for assessing procurement systems
MEET	Ministry of Economy, Energy and Tourism
MAS	Multiple Award Schedule
NSD	Nuclear Safety Department
OECD	Organisation for Economic Co-operation and Development
DAC	OECD Development Assistance Committee
PCRA	Preliminary crime risk assessment
PwC	PricewaterhouseCoopers
PPS	Public Procurement System
RSSPP	Regulation on Small-Scale Public Procurement
TD	Textual Deficiency Index
CIMA	The Chartered Institute of Management Accountants
CRAM	The Crime Risk Assessment Mechanism

AFI	The UK Annual Fraud Indicator
NFA	UK National Fraud Authority
USAID	United States Agency for International Development
UNODC	United Nations Office on Drugs and Crime
OIG	US Office of Inspector General

INTRODUCTION

Public procurement is increasingly associated with great expectations. The *2020 Strategy for smart, sustainable and inclusive growth* of the European Union invokes it in the achievement of objectives ranging from improving framework conditions for business to innovate to a shift towards a low-carbon economy, while at the same time ensuring the most efficient use of public funds.[1] In times of bulging public deficits, the effect of potential savings – expected to come from better procurement rules – on the public sector balance is eagerly anticipated. The growing hopes that government purchasing would continue to contribute to economic prosperity, as well as to a host of other goals, however, require that its regulation be constantly modernised and brought in line with economic realities. A number of obstacles need to be overcome if public purchasing is to achieve such overarching societal goals. Highlighted among these has been the threat of fraud and corruption.

According to the Organisation for Economic Co-operation and Development (OECD), public procurement is among the governmental activities most vulnerable to corruption and fraudulent activities. Despite the controls in place, a number of government contracts give rise to errors, anomalies, fraud, misuse of public funds or corruption. Most errors and anomalies can be explained by a lack of awareness on the part of the people involved – purchasing agents, accountants, auditors, etc. – and this can be put right through training. However, misappropriation – for instance in the form of fraud and corruption – is more difficult to correct because it results from a deliberate desire to circumvent the rules for illicit gain, and to cover up the perpetrator's actions.[2]

The present compilation of selected best practices addresses the threat of fraud and corruption from multiple perspectives, with the underlying purpose of providing practitioners from Romania and Greece with a set of state of the art approaches for addressing the threat of fraud and corruption in the complex multi-layered national public procurement systems. The publication begins with a review of the internationally recognised and accepted as a general practice *Principles for Enhancing Integrity in Public Procurement*,[3] developed by OECD.[4] The illustration of the Principles is complemented by a discussion on the key elements of public procurement, provided by the invaluable experience of the United Nations Office on Drugs and Crime (UNODC) and examined in the *Guidebook*

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1 EC. (2010). Europe 2020: *A strategy for smart, sustainable and inclusive growth*. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF

2 OECD. (2009). OECD Principles for Integrity in Public Procurement. Available at: http://www.oecd.org/gov/ethics/48994520.pdf

3 Ibid.

4 Organisation for Economic Co-operation and Development's (OECD). Official webpage available at: http://www.oecd.org/

on Anti-Corruption in Public Procurement and the Management of Public Finances.[5] Next, Chapter I focuses exclusively on integrity issues at the contract management phase of the public procurement cycle, which is arguably the most vulnerable to the lack of integrity but often under-regulated. A comprehensive study, conducted by Consip S.p.A,[6] the Italian Public Procurement Agency, makes an exhaustive analysis[7] on the level of integrity of public procurement at the execution phase, based on evidence from the Italian National Frame Contracts. The first part concludes with a review of risk mapping[8] exercise, undertaken by OECD, offering comprehensive inventory of the means/practices by which the main types of procurement contracts can be tainted by corruption or fraud.

Chapter II goes deeper into the methodological aspects by reviewing risk indicators of procurement fraud and corruption. It begins with a brief overview of the general nature of fraud risk management from the perspective of the world's largest and leading professional body of management accountants – the Chartered Institute of Management Accountants (CIMA).[9] The private sector viewpoint and extensive experience, provided by an assessment of the European Bank for Reconstruction and Development (EBRD)[10] gives insights into the way the international financial sector is looking at the issues. A review of existing procurement fraud indicators and corruption diagnostic questions from the perspective of the United States, further contribute to the widening of the horizon. As a conclusion of the second part, the section reviews a state of the art *Methodology for assessing procurement systems (MAPS)*, jointly developed by the World Bank[11] and the OECD Development Assistance Committee (DAC).[12]

Chapter III turns to the European experience of measuring fraud and corruption in the public procurement sector by reviewing the approach of two state of the art innovative methodologies – a study on *Identifying and Reducing Corruption in Public Procurement in the EU*,[13] developed by PricewaterhouseCoopers (PwC), Ecorys

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5 United Nations Office on Drugs and Crime (UNODC). (2013). *Guidebook on anti-corruption in public procurement and the management of public finances. Good practices in ensuring compliance with article 9 of the United Nations Convention against Corruption*. Available at: https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf

6 Consip S.p.A. Official webpage available at: http://www.consip.it/on-line/Home.html

7 Dr Gian Luigi, Head of R&D, Consip S.p.A; Dr Roberto Zampino, Economist at the R&D Unit, Consip S.p.A. (2012). *Strengthening the Level of Integrity of Public Procurement at the Execution Phase: Evidence from the Italian National Frame Contracts. Forthcoming in G. Piga and S. Treumer (Eds.), Symposium of the Law and Economics of Public Contracts, 2012*

8 OECD. (2009). OECD Principles for Integrity in Public Procurement. Available at: http://www.oecd.org/gov/ethics/48994520.pdf

9 Chartered Institute of Management Accountants (CIMA). Official webpage available at: http://www.cimaglobal.com/

10 European Bank for Reconstruction and Development (EBRD). Official webpage available at: http://www.ebrd.com/pages/homepage.shtml

11 The World Bank. Official webpage available at: http://www.worldbank.org/

12 Methodology for assessing procurement systems (MAPS). (2009). Available at: http://www.oecd.org/dac/effectiveness/45454394.pdf

13 PwC, Ecorys, with support of Utrecht University. (2013). Available at: http://ec.europa.eu/anti_fraud/documents/anti-fraud-policy/research-and-studies/identifying_reducing_corruption_in_public_procurement_en.pdf

and the University of Utrecht; and the *Annual Fraud Indicator (AFI),*[14] elaborated by the UK National Fraud Authority (NFA).[15]

Chapter IV takes a brief detour from the in-depth review of the nature and methodological aspects of fraud and corruption in the public procurement process, to illustrate specific implications and impact of corrupt and fraudulent procurement practices in a country- and sector-specific context. This is achieved through a case study of the Bulgarian energy sector,[16] which is of key strategic importance for the development of national economies. In the concluding chapter, the compendium reviews a state of the art scientific approach for crime proofing of European legislation. The *Crime Risk Assessment Mechanism (CRAM)*[17] is a four-step process aiming to improve existing legislative texts in terms of identifying whether criminal implications exist in a particular legislation; determining whether there is a crime risk; and proposing changes likely to aid the reduction of the magnitude and extent of the identified risk(s). The comprehensive methodology is developed by Transcrime,[18] Joint Research Centre on Transnational Crime of the Università Cattolica del Sacro Cuore of Milan and the University of Trento.

14 National Fraud Authority. (2013). *Annual Fraud Indicator 2013*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206552/nfa-annual-fraud-indicator-2013.pdf

15 UK National Fraud Authority. Official Webpage available at: https://www.gov.uk/government/organisations/national-fraud-authority/about

16 The analysis, on which the following case study is based, was prepared by the Center for the Study of Democracy as part of the publication "*Energy and Good Governance in Bulgaria Trends and Policy Options*", 2011, available at: http://www.csd.bg/artShow.php?id=15499

17 Ernesto Savona (2006). *The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime*. Available at: http://transcrime.cs.unitn.it/tc/fso/pubblicazioni/AP/MARC_Legislative_CRAM_Finale_report.pdf

18 Transcrime. Official webpage available at: http://www.transcrime.it/en

EXECUTIVE SUMMARY

Both developed and developing countries are facing potentially fraudulent environment with regard to public procurement. Aided by the fact that the public procurement process is a complex correlation between economic and integrity factors, involving multiple stages and stakeholders, it is essential for practitioners to initially depart from identification of the basic principles of conduct. Enhancing integrity in the public procurement cycle is an important starting point to tackling the misuse of public funds due to corruption and fraud.

Precautionary measures for enhancing integrity can be adopted in each of the three major stages of the public procurement process (pre-tendering, tendering, post-award)**, in order reduce the risks of fraud and corruption**. These guidelines are tailored for practitioners and apply to the specific sub-stages of the main phases of the public procurement process. The *Principles for Enhancing Integrity in Public Procurement*, developed by the Organisation for Economic Co-operation and Development's (OECD), which guides governments' practice in preventing waste, fraud and corruption in the entire procurement cycle, from needs assessment to contract management and payment, are unique policy instrument in that respect. The Principles are further reinforced by a discussion on the key elements of public procurement, provided by the invaluable experience of the United Nations and examined in the *Guidebook on Anti-Corruption in Public Procurement and the Management of Public Finances*.

Although the awarding stage is a critical ring in the procurement chain, in principle, all the efforts to assure competition, transparency and objective criteria in decision-making – that are instrumental to an efficient allocation of social resources – ought to be assured throughout the entire cycle of the public procurement procedure, from its inception until the completion of the execution of the contract. Yet, after the award, the public buyer may accept or suffer a different (that is, worse) performance. Therefore, the paper puts additional focus on the integrity issues at the contract management phase of the public procurement cycle. A comprehensive study, conducted by Consip S.p.A, the Italian Public Procurement Agency, makes an exhaustive analysis on the level of integrity of public procurement at the execution phase, based on evidence from the Italian National Frame Contracts. The study exploits the structure of the National Frame Contracts (NFCs) which are managed by Consip as part of the broader Italian program for the rationalization of public spending in goods and services. The results of the analysis and the extent of contract mismanagement look daunting – 481 cases of breaches of contracts – out of 743 inspections – were collected, but only in the 2.49 % of such cases penalty clauses were enforced by purchasing entities.

In order to implement good practices and mechanisms for enhanced performance at each stage of the public procurement cycle, there is a need for in-depth

exploration of the associated risks. Tackling a specific problem in a complex system, such as the public procurement cycle, requires for all stakeholders to be aware of the risks of fraud and corruption. It is imperative, therefore, to identify the techniques used to misappropriate public funds, and look at the various types of fraud. Therefore, the text provides an attempt to offer comprehensive inventory of the means/practices by which the main types of procurement contracts can be tainted by corruption or fraud. This is achieved through review of a risk mapping exercise, undertaken by OECD, providing examples of identified risks mainly in European Union Member-States. Process mapping is among the main techniques employed for identifying risk. This is particularly valid for the complex public procurement process, which carries different types of risks in each of its various stages. Despite the available control mechanisms in place, which are relatively advanced in the developed countries, governmental contracts often give room for errors, anomalies, fraud, misuse of public funds and corruption. OECD undertook this technique of identifying potential room for fraudulent and corrupt activities by conducting a comprehensive risk mapping research focusing on (1) methods used, at each stage of the procurement cycle, to make a fraudulent transaction look legitimate to observers or auditors; and (2) techniques for misappropriating funds initially earmarked for a transaction, how the funds are used (whether there is personal gain or not), and the networks that make it possible to arrange such dealings.

Familiarising with the main guidelines and approaches for increased integrity throughout the complex system of the public procurement and the ability to understand the nature, types and structure of risks is a solid foundation for any practitioner. Chapter I achieves this objective by discussing state of the art practices in the area of public procurement. **In an effort to achieve even greater comprehensiveness, the compendium continues deeper into the methodological aspects by reviewing risk indicators of procurement fraud and corruption**. According to the world's largest and leading professional body of management accountants – the Chartered Institute of Management Accountants (CIMA) – risk management is defined as the process of understanding and managing risks that the entity is inevitably subject to in attempting to achieve its objectives. Risk management is about understanding the nature of events and practices and, where they represent threats, making positive plans to mitigate them. The extensive experience of the financial sector, provided by an assessment of the European Bank for Reconstruction and Development (EBRD) gives additional insights into the way the sector is looking at the issue. EBRD's public procurement assessment is founded upon eleven core principles, which were identified after a thorough review of established international procurement best practices. Key indicators monitor the degree of compliance with regard to the principles and protect the system against fraud risks.

The auditors' approach to fraud detection and prevention in public procurement, reviewed from the standpoint of the audit department of the US Office of Inspector General (OIG) for General Services Administration, further widens the horizon of the discussion by identifying specific areas and indicators of fraud risk. Provision of corruption diagnostic questions, on the other hand, additionally aids the conduct of in-depth analyses of major government sectors and functions, helping practitioners target major sources of corruption vulnerability and outline strategies and concrete actions, likely of reducing opportunities for corrupt practices. The practitioners' perspective, assessed in the *Corruption Assessment Handbook*, developed by the United States Agency for International Development,

is also reviewed. The Handbook conducts in-depth examination of multiple sectors, suggesting a set of questions, grouped in six diagnostic areas, to examine major aspects of public procurement policies and practices that can be prone to corruption.

The reviewed various indicators of procurement risks, presented from the different perspectives of auditors and practitioners, as well as the approach of the financial sector to an efficient public procurement framework, strive to equip relevant stakeholders with state of the art instruments to protect the procurement cycle from fraudulent and corrupt activities. The effectiveness of these tools highly depends on the soundness of entire procurement system (that is its institutional architecture, legal framework, operations, control and oversight mechanisms, integrity, etc.) there are (to be) integrated in. Therefore, the compendium also reviews the comprehensive *Methodology for assessing procurement systems (MAPS)*, jointly developed by the World Bank and the OECD Development Assistance Committee (DAC). The MAPS's Base-Line Indicators (BLIs) and Compliance/ Performance Indicators (CPIs) set the international standards for assessing the quality and performance of national public procurement systems.

The examined state of the art techniques, reflected through the lens of practitioners with different areas of expertise, identify sections/stages/elements of the public procurement process, particularly vulnerable to fraudulent and corrupt activities. The discussion of approaches to identifying risk areas, the review of cutting-edge indicators across the entire spectrum of the procurement process and the selected guidelines for establishing a sound public procurement system, resilient to fraud and corruption, construct a strong set of tools for limiting the misuse of public funds. Theoretically, when integrated into a procurement system, found upon sufficient legal and institutional framework, the implementation of the reviewed techniques should contribute to limiting the fraudulent and corrupt practices and the respective amount of monetary public loss. Therefore, countries should be able to assess the effect of these instruments upon the procurement process by measuring the extent of fraud and corruption.

Thus, having laid this comprehensive foundation for understanding the nature and implications of corruption and fraud in the public procurement system, the paper turns to the **European experience of measuring fraud and corruption in the public procurement sector** by reviewing the approach of two state of the art innovative methodologies. As per request from the European Anti-Fraud Office (OLAF), on behalf of the European Commission (EC), PricewaterhouseCoopers (PwC), Ecorys and the University of Utrecht performed a study on *Identifying and Reducing Corruption in Public Procurement in the EU*. This innovative, mainly econometric, approach of the comprehensive methodology is based on four-stage model, where the pillars build on each other to ultimately provide an estimate of the direct costs of corruption in five economic sectors in a sample of eight Member States studied. The overall objective of the study on identifying and reducing the costs of corruption in public procurement involving EU Funds was to provide information, methodologies and tools for the European Commission and Member States' authorities for the implementation of the EU anticorruption policies. Taken together, the overall direct costs of corruption in public procurement in 2010 for the five sectors studied in the 8 Member States constituted between 2.9 % to 4.4 % of the overall value of procurements in the sector published in the Official Journal. The monetary value of this percentage range is between EUR 1 470 million and EUR 2 247 million.

The other selected best practice is the *Annual Fraud Indicator (AFI)* methodology, developed by the UK National Fraud Authority (NFA), aiming to highlight potential fraud losses, with a view to encourage the establishment of greater resilience amongst business, charities, the public sector and by individuals. The Annual Fraud Indicator is unique instrument in its focus on raising awareness among the UK population of the problem of fraud, which is prevalent throughout the entire economic spectrum. AFI is neither a tool of crime statistics, nor a statistical or econometric model but rather a best estimate of the possible size of the problem. AFI 2013 provides an estimated procurement fraud loss of GBR 2.3 billion (GBR 1.4 billion for central government, GBR 876 million for local government) in the UK.

Chapter IV takes a brief detour from the in-depth review of the nature and methodological aspects of fraud and corruption in the public procurement process, to illustrate specific implications and impact of corrupt and fraudulent procurement practices in a country- and sector-specific context. This is achieved through a case study, conducted by the Center for the Study of Democracy, of the Bulgarian energy sector, which is of key strategic importance for the development of the country's economy. At the same time, public procurement is the most crucial instrument of energy policy, both at the national and international levels. Therefore, it is imperative that the energy contracts (in cases valued at EUR billions) are managed by a sound public procurement system, founded upon integrity and effective check and balance mechanisms, ensuring public benefit is prioritised during each stage of the procurement process. The absence of such strong public procurement system in Bulgaria significantly increases corruption risks in the award and performance of public procurement contracts in the energy sector.

The compendium concludes with a review of comprehensive scientific method for crime proofing of European legislation. The *Crime Risk Assessment Mechanism (CRAM)* is a four-step process aiming to improve existing legislative texts in terms of identifying whether criminal implications exist in a particular legislation; determining whether there is a crime risk; and proposing changes likely to aid the reduction of the magnitude and extent of the identified risk(s). The comprehensive methodology is developed by Transcrime, a Joint Research Centre on Transnational Crime of the Università Cattolica del Sacro Cuore of Milan and the University of Trento.

CHAPTER I

ENHANCING INTEGRITY AND UNDERSTANDING THE NATURE OF FRAUD AND CORRUPTION RISKS IN THE PUBLIC PROCUREMENT CYCLE: IMPLEMENTATION INSTRUMENTS

Chapter I discusses the internationally recognised and accepted as a general practice *Principles for Enhancing Integrity in Public Procurement*, developed by the Organisation for Economic Co-operation and Development's (OECD). The elaborated approaches are unique policy instrument that guides governments' practice in preventing waste, fraud and corruption in the entire procurement cycle, from needs assessment to contract management and payment. The section reinforces the illustration of the Principles with a discussion on the key elements of public procurement, provided by the invaluable experience of the United Nations and examined in the *Guidebook on Anti-Corruption in Public Procurement and the Management of Public Finances*, developed by the United Nations Office on Drugs and Crime (UNODC). Next, Chapter I focuses exclusively on integrity issues at the contract management phase of the public procurement cycle, which is arguably the most vulnerable to the lack of integrity but often under-regulated. A comprehensive study, conducted by Consip S.p.A, the Italian Public Procurement Agency, makes an exhaustive analysis on the level of integrity of public procurement at the execution phase, based on evidence from the Italian National Frame Contracts.

In order to implement good practices and mechanisms for enhanced performance at each stage of the public procurement cycle, there is a need for in-depth exploration of the associated risks. Tackling a specific problem in a complex system, such as the public procurement cycle, requires for all stakeholders to be aware of the risks of fraud and corruption. It is imperative, therefore, to identify the techniques used to misappropriate public funds, and look at the various types of fraud. Therefore, Chapter I concludes with an attempt to offer comprehensive inventory of the means/practices by which the main types of procurement contracts can be tainted by corruption or fraud. A risk mapping exercise, undertaken by OECD provides examples of identified risks mainly in European Union Member-States, which comes as a confirmation that fraud is possible even in countries with longstanding and abundant legislation, with strong system of checks and balances.

This chapter draws extensively on the following sources:

- OECD. (2009). OECD Principles for Integrity in Public Procurement. Available from: http://www.oecd.org/gov/ethics/48994520.pdf
- United Nations Office on Drugs and Crime (UNODC).(2013). *Guidebook on anti-corruption in public procurement and the management of public finances.*Available from: https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf
- Dr Gian Luigi, Head of R&D, Consip S.p.A; Dr Roberto Zampino, Economist at the R&D Unit, Consip S.p.A. (2012). *Strengthening the Level of Integrity of Public Procurement at the Execution Phase: Evidence from the Italian National Frame Contracts. Forthcoming in G. Piga and S. Treumer (Eds.), Symposium of the Law and Economics of Public Contracts, 2012*

I. ENHANCING INTEGRITY AT EACH STAGE OF THE PROCUREMENT CYCLE

Both developed and developing countries are facing potentially fraudulent environment with regard to public procurement. Aided by the fact that the public procurement process is a complex correlation between economic and integrity factors, involving multiple stages and stakeholders, it is essential for practitioners to initially depart from identification of the basic principles of conduct. Enhancing integrity in the public procurement cycle is an important starting point to tackling the misuse of public funds due to corruption and fraud.

Integrity can be defined as the use of funds, resources, assets, and authority, according to the intended official purposes, to be used in line with public interest. A "negative" approach to define integrity is also useful to determine an effective strategy for preventing violations' in the field of public procurement. Integrity violations can be broadly categorised in seven groups:

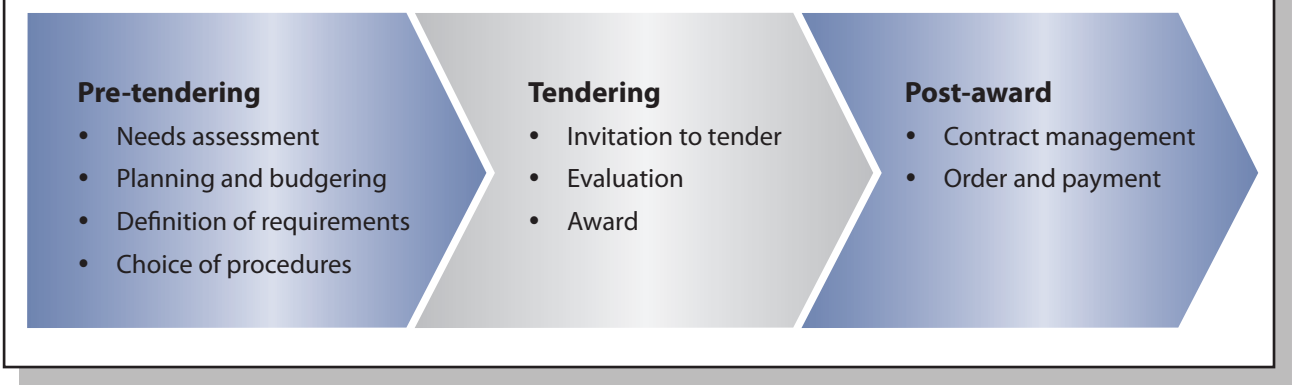
1. corruption including bribery, "kickbacks", nepotism, cronyism and clientelism;
2. fraud and theft of resources;
3. conflict of interest in the public service and in post-public employment;
4. collusion;
5. abuse and manipulation of information;
6. discriminatory treatment in the public procurement process;
7. waste and abuse of organisational resources.

The Principles for Enhancing Integrity in Public Procurement are structured around four pillars: **transparency, good management, prevention of misconduct, and accountability and control**.[19]

Precautionary measures for enhancing integrity can be adopted in each of the three major stages of the public procurement process, in order reduce the risks of fraud and corruption. These guidelines are tailored for practitioners and apply to the specific sub-stages of the three main phases of the public procurement process. It should be noted, however, that in order for any integrity measure to be effective, it has to build upon substantial political, institutional and legal bases.

[19] OECD. (2010). *Public Procurement Training for IPA Beneficiaries*. Available at: http://www.oecd.org/site/sigma/publicationsdocuments/46189707.pdf

FIGURE 1: THE PUBLIC PROCUREMENT CYCLE



Source: OECD principles for Integrity in Public Procurement, 2009.

1. Pre-tendering

Stage 1: Needs assessment

The incentive for procuring services or goods must be backed by an identified need of the government. Therefore, conducting a needs assessment is imperative before considering starting a public procurement procedure. The public authority has to decide as to whether the envisaged new purchase is required at all or could be replaced by enhancement of existing resources, as well as that there are no alternative, such as in-house inventory to be put in different application. The government has to make sure that quantity and technical requirements, the time and location for contract performance, are justified. Gathering as much information as possible, for example through exploring databases and market researches, as well as consulting the private sector, where appropriate, helps reducing information asymmetry and is additional precautionary measure.

Conducting thorough analysis during the needs assessment could prove very effective and would reduce the risks of fraud during the actual public procurement process. Apart from assessing the need internally, it is often wise to make use of validation systems, independent from the decision-maker. This generally involves reassurance that the decisions to launch a specific procurement are taken by more than one official to the extent possible, especially for projects of high value, to minimise the risk of lobbying or collusion with a specific firm. Diversifying the assessment team reduces the risk of individual corruption and strengthens the team's understanding of the requirement and the market. Furthermore, the entire decision-making process should be documented and transparent.[20] For projects at risk due to their complexity, the public authorities can consider the use of independent validation of the process (e.g. approval by

[20] United Nations Office on Drugs and Crime (UNODC).(2013). *Guidebook on anti-corruption in public procurement and the management of public finances*. Available at: https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf

a review committee, use of a probity advisor). It is also wise to consult the beneficiary, the end-user, of the procurement, for instance through a survey of public utility.[21]

Stage 2: Planning and budgeting

If the results from the needs assessment are positive and a decision is taken to proceed forward with the procurement, public authorities should carefully estimate the costs for the goods, services or works to be purchased. Costs can be estimated on the basis of past procurements or can be based on sound forecasting methods, taking into account the overall investment strategy of the cabinet and the limitation of the annual budget. Cost estimates must also be realistic and should already take into account possible variations of the contract over time. Budget estimates and procedures should also account for the services of external consultants, where complex, large-scale projects are to be procured.

Good practices suggest conducting in-depth market research to estimate the likely costs of the procurement. Bid prices that are considerably higher than market prices could be an indicator of price fixing, while concluding a contract with a company that offered a considerably higher-than-market price could also indicate collusion between this winning company and the responsible procurement officer. Sound project management in terms of proper and transparent application process, separation of duties and supervised documentation selection, must also be in place.

Example: A procuring entity procures an elevator for a public school for persons with mobility disabilities. After contract completion it turns out that this elevator needs special maintenance which can only be provided by the contractor and that the maintenance was not part of the contract. Total costs for the elevator over its life-cycle multiply, because the contractor charges unreasonably high fees for the maintenance services.

Solution: Good practice includes having budgets and costs of procurements realistically estimated applying a holistic approach, taking into account projected lifetime costs of ownership. Maintenance should have been part of the competition and accordingly included in the tendered contract.

Source: UN Anti-Corruption Toolkit, 2002

Stage 3: Definition of requirements

Having a set of rules for prevention of conflict of interest, collusion and corruption and for promoting integrity is essential pre-condition for clean public procurement process. Public officials, as well as external consultants, who are engaged with the tender development should provide declarations of private interests and be informed (public officials could possibly undergo training or cooperate with civil society organisations) on issues of conflicts of interests.

[21] OECD. (2009). *OECD Principles for Integrity in Public Procurement*. Available at: http://www.oecd.org/gov/ethics/48994520.pdf

Public authorities have to ensure that specifications are based on the needs assessment, designed to avoid bias, as well as designed in relation to functional performance.

Stage 4: Choice of procedures

European Union Directives provide three ways in which contracts can be awarded: (a) *Open Procedure*, where all suppliers may tender; (b) *Restricted Procedure*, where all suppliers may express an interest, but only those selected from those who meet the purchaser's minimum requirements for economic and financial standing and technical capability may tender; and (c) *Negotiated Procedure*, where a purchaser may negotiate the terms of the contract with one or more suppliers of its choice.[22]

As a general principle, the procurement procedure chosen by the procuring entity should always ensure the maximum practicable competition. For this reason, the open procedure is often the default procedure under procurement legislations. Other procedures, such as restricted procedures which restrict the competition to a few highly qualified bidders, negotiated procedures or single-source procurement should only be allowed under special circumstances. Grounds for use of these procedures should be defined in the law and restrictively applied by the procuring entities. While negotiations allow the procuring agency to respond more nimbly to innovations in the marketplace, negotiations also significantly increase the risk of corrupt behaviour. To discourage corruption, bidders participating in negotiations must be treated equally and provided with the same information. The conduct and result of negotiations should be documented in the procurement file. The use of non-competitive procedures should be the exception, and any such procedures must be justified and documented.[23]

In addition to the selection of type of procedure, considerable attention must be paid to tender documentation, time limits, contractor and technical qualifications and specifications, selection and award criteria, which must be specified in a clear, comprehensive and unbiased manner. Transparency is the key element for limiting corrupt practices during the procurement process. For example, ensuring transparency could be achieved through a) publishing the current list of qualified suppliers; b) publishing the invitation to apply for qualification on a regular basis, including the qualification criteria; c) ensuring that specifications are set up in advance and published; and d) publishing all awards under framework agreements, either per order or on a regular basis.[24]

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22 UK National Audit Office. (2013). Getting value for money from procurement: How auditors can help. Available at: http://www.nao.org.uk/wp-content/uploads/2013/02/vfmprocurement-guide.pdf

23 United Nations Office on Drugs and Crime (UNODC).(2013). *Guidebook on anti-corruption in public procurement and the management of public finances*. Available at: https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf

24 OECD. (2009). *OECD Principles for Integrity in Public Procurement*. Available at: http://www.oecd.org/gov/ethics/48994520.pdf

Example: A procuring entity initiated a tender procedure for the construction of a soccer stadium. The tender documents indicated a maximum budget of US 10 million and required that bidders have had annual revenues of US 50 million from the construction of soccer stadiums during the past two years. Only one tenderer, which paid a bribe for this requirement to be included in the tender documents, meets this requirement.

Solution: Minimum requirements optimally should be objective, relate to the capacity to perform and be appropriate with regard to the subject matter of the procurement. A minimum revenue requirement of five times the estimated contract costs does not seem to be appropriate and it restricts competition. It is also questionable whether a requirement according to which revenues must have come only from the construction of soccer stadiums, and not, for instance, from a rugby stadium, is justified. Good practice suggests lowering the revenue requirement to an appropriate volume and taking revenues from the construction of other sports facilities into consideration.

Source: UN Anti-Corruption Toolkit, 2002.

2. Tendering Phase

Stage 5: Invitation to tender

As highlighted above, transparency is of overwhelming importance. The procuring entity should publish a public notice of its intent to procure goods or services, so that potential bidders can become aware of any contract opportunity with the government. Advertising a notice of intended procurement is one of the cornerstone elements of an appropriate procurement system. A public procurement notice must communicate a certain minimum information, especially with regard to the subject of the procurement, technical specifications, selection and award criteria, contract management and deadlines, as well as point of contact for clarification, so that potential bidders can assess whether a particular procurement is of competitive interest to them.[25]

Stage 6: Evaluation

Taking the necessary security and confidentiality measures is essential during the evaluation stage. The opening of the bid must occur as soon as possible, leaving no room for tempering, and following a pre-announced order. Ensuring an upmost independence of the evaluation process is key requirement. The evaluation criteria should not include any additional features then those provided by the invitation to tender notice. The assessment should not be done be single individual but by several evaluation officials, preferably a committee. In cases of highly complex, technical tenders, external evaluators may be selected, given the fact that they, as well as the other evaluation officials, have submitted declaration

[25] United Nations Office on Drugs and Crime (UNODC).(2013). *Guidebook on anti-corruption in public procurement and the management of public finances*. Available at: https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf

of conflicts of interests or/and integrity. It is also a practice, especially for large-scale projects to be evaluated separately and independently, (e.g. technical project and risk criteria could be assessed prior to and separately from the financial criteria).

Stage 7: Award

Once the winning application is chosen, the managing authority should, in a timely manner announce the selected entity. The prompt disclose, however, is not effective without its justification through inclusion of the price of the winning offer, name of the candidate, as well as summary of the advantages of the top-rated offer, excluding commercially-sensitive information, which could favour collusion in future procurements. Allowing the pre-defined standstill period and the available channels for complaints and dispute resolutions is also a necessity.

3. Post-tendering phase

Stage 8: Contract management

Once the contract is assigned, there should be a clear management structure in place to clarify the specific expectation, roles and responsibilities. The monitoring of the implementation of the contract is a particular challenge. In order for this to be achieved, there should be a monitoring system available to follow the contractor's performance against targets, provided for by the tender. Changes in the contract are particularly vulnerable aspect of the implementation and have to be controlled by a) ensuring that contract changes that alter the price and/or description of the work are supported by a robust and objective amendment approval process; b) ensuring that contract changes beyond a cumulative threshold are monitored at a high level, preferably by the decision making body that awarded the contract; c) allowing contract changes only up to a reasonable threshold, and changes that do not alter the quality of the good or service – beyond this threshold, a review system could be set up to understand the reasons for these changes and consider the possibility to re-tender; d) clearly tying in the variation with the main contract to provide an audit trail; and e) recording changes to the contract and possibly communicating them to unsuccessful tenderers as well as other stakeholders and civil society. Additional approach is to enable stakeholders and civil society to scrutinise the implementation of the public procurement.[26]

Stage 9: Order and Payment

At the final stage of the procurement cycle, public authorities have to make sure that received product/service is in line with the expected standards and the tender documentation. Delegating the final accounting or audit of a project to personnel, not involved in former phases of the given procurement is a good practice of ensuring separation of duties and impartiality. Where possible, it is

[26] OECD. (2009). *OECD Principles for Integrity in Public Procurement*. Available at: http://www.oecd.org/gov/ethics/48994520.pdf

also beneficial to consider the possibility of post-project assessments, according to particular types of projects (e.g. with high values, complexity or sensitivity).[27]

In order for corruption loopholes and risks, such as favouritism, to be avoided, several basic rules for fair and efficient procurement have to be kept for the public procurement process to serve the public interest:

- *Value for money*. Procurement should be economical and based on the principle "value for money". It should result in the best quality of goods and services for the price paid, or the lowest price for the acceptable quality of goods and services (not necessarily the lowest priced goods available; and, not necessarily the absolutely best quality available, but the best combination to meet the particular needs). "Price" is usually an "evaluated price", meaning that additional factors, such as operating costs, availability of spares, servicing facilities are taken into account.
- *Fair and impartial*. Contract award decisions should be fair and impartial. Public funds should not be used to provide favours, while standards and specifications must be non-discriminatory. Suppliers and contractors should be selected on the basis of their qualifications and the merit of their offers and there should be equal treatment of all in terms of deadlines, confidentiality, etc.
- *Transparent*. The process should be transparent. Procurement requirements should be readily accessible to all potential suppliers and contractors, and preferably announced as part of the invitation to bid. The opening of bids should be public, and all decisions should be fully recorded in writing.
- *Efficient*. The procurement process should be efficient. The procurement rules should reflect the value and complexity of the items to be procured. Procedures for small value purchases should be simple and fast but as purchase values and complexity increase, more time and more complex rules will be required to ensure that principles are observed.
- *Accountability* is essential. Procedures should be systematic and dependable, and records explaining and justifying all decisions and actions, should be kept and maintained.
- *Competence and integrity* in procurement encourages suppliers and contractors to make their best offers and this in turn leads to even better procurement performance. Purchasers who fail to meet high standards of accountability and fairness are quickly identified as poor partners with which to do business. Experience shows that much can be done to curb corrupt procurement practices if there is a desire and a will to do so.[28]

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27 *Ibid.*

28 United Nations Global Programme against Corruption (GPAC). (2002). *Anti-Corruption Tool Kit*. Available at: http://www.unodc.org/pdf/crime/toolkit/f1tof7.pdf

II. STRENGTHENING THE LEVEL OF INTEGRITY OF PUBLIC PROCUREMENT AT THE EXECUTION PHASE: EVIDENCE FROM THE ITALIAN NATIONAL FRAME CONTRACTS

Authors: Dr Gian Luigi, Head of R&D, Consip S.p.A; Dr Roberto Zampino, Economist at the R&D Unit, Consip S.p.A.[29]

Although the awarding stage is a critical ring in the procurement chain, in principle, all the efforts to assure competition, transparency and objective criteria in decision-making – that are instrumental to an efficient allocation of social resources – ought to be assured throughout the entire cycle of the public procurement procedure, from its inception until the completion of the execution of the contract. Yet, after the award, the public buyer may accept or suffer a different (that is, worse) performance.

There are several concerns about the lack of integrity during the contract execution phase. *First*, the contract management phase stretches typically over a longer period than the contractor selection phase. While such time unbalance between the pre- and the post-award phase may be limited in the procurement cycle of high-obsolescence goods such as IT equipment, it becomes more striking in the case of the procurement of infrastructures such as highways, bridges and tunnels. It is accepted that the longer the contract execution phase, the more likely unlawful relations arise between the contractor and the contract manager(s). Indeed, the repeated nature of the interaction may give rise to cooperative strategies whereby profits arising from lower-than-promised levels of performance are shared between the contractor and the contract manager(s).

Second, lack of integrity at the contract management stage may jeopardize the competitive procedure, which led to the contractor selection. Any violation, modification or worsening of the quality during the execution phase entail undue profit for the winner, thus giving rise to a change in the conditions set in the award, and consequently in the contractual equilibrium set therein. This leads to a violation of the competition principle as applied in the selection and in the award of the contract, which infringes the rights of losing bidders. Consequently, the contractor does not guarantee, from an ex post perspective, the best value for money to the buyer.

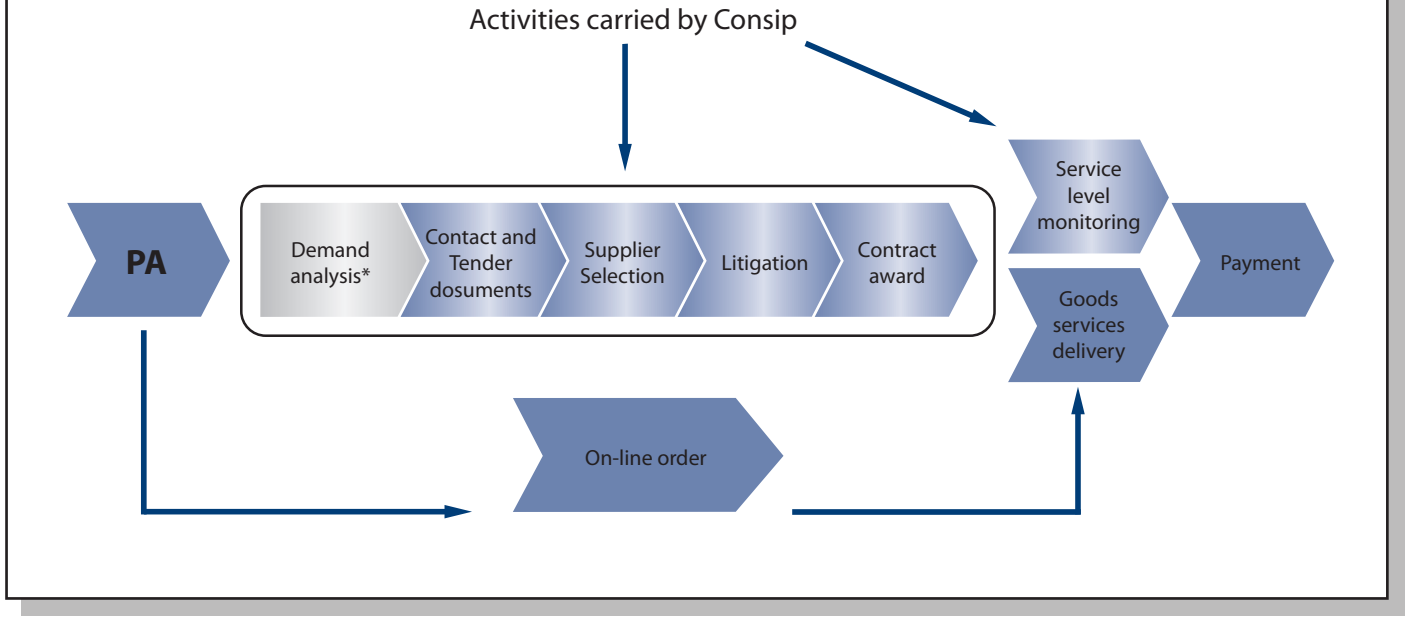
[29] G. Piga and S. Treumer (Eds.), Symposium of the Law and Economics of Public Contracts, 2012.

A. Strengthening contract management in the system of the Italian National Frame Contracts (NFC): Monitoring system to lower the risk of contract mismanagement

The contract management phase of the public procurement cycle is arguably the most vulnerable to the lack of integrity but often under-regulated. As observed in the 9 stages of enhancing integrity, described above, regulatory frameworks and practical guidance prescribe in detail the "rules of the game" until the contract award, leaving the execution phase (where the two main actors – the awarding authority and the contractor – interact often for a long period of time outside of the reach of possible watchdogs such as the losing bidders under-researched) under-researched. In addition, demand aggregation by means of framework agreements awarded by a central purchasing body might put public authorities, purchasing goods and services through those framework agreements, in a more passive role than other public buyers that carry out the whole procurement cycle on their own.

The latter circumstance motivates a comprehensive, innovative approach undertaken by Consip S.p.A. (Consip henceforth), the Italian Public Procurement Agency. The study exploits the structure of the National Frame Contracts (NFCs)[30] which are managed by Consip as part of the broader Italian program for the rationalization of public spending in goods and services (the Program henceforth).

FIGURE 2: THE NATIONAL FRAME CONTRACTS IN A SNAPSHOT



** Based on data/information provided by central and local authorities.*

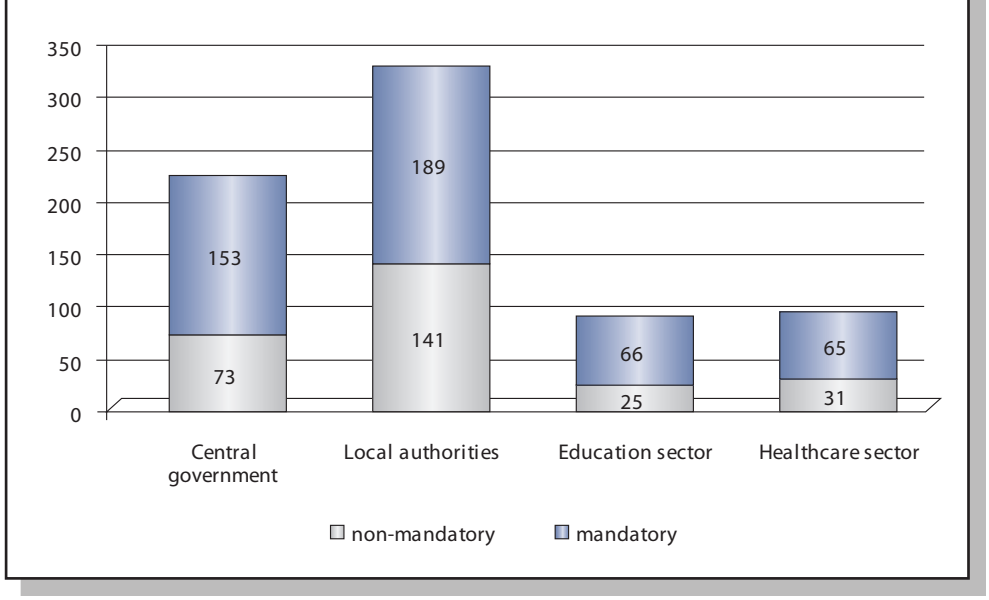
Source: Presentation by Gian Luigi Albano, Ph.D. Head of Research Consip Ltd, The National Central Purchasing Body, Italy and Dept of Economics and Finance, University LUISS "G. Carli", Rome, during a conference "EU's Financial Interests under Threat: New Approaches in Assessing Risks in Public Procurement", 11.2013, Sofia, Bulgaria.

[30] (National) frame contracts can be thought of as framework agreements concluded with one economic operator and all (contractual) conditions laid down.

The NFCs consist of a set of contracts whereby competitively selected contractors undertake to accept – at given conditions and prices – orders from public administrations, up to a pre-determined monetary amount or quantity of goods or, in any case, until the expiry date of the framework contract. Administrations send their online orders for supplies (fax orders are still possible) directly to the companies that have been awarded the contracts. All public administrations can make use of the NFCs. However, while central government (mainly Ministries) are mandated to use NFCs, other authorities (regions, provinces, municipalities, schools and the healthcare sector) can use NFCs if they wish. However, whenever a NFC is active all other authorities have to meet-or-beat the quality-price ratio set by the standing NFC if they wish to perform a procurement process of their own. The product/service categories in the mandatory NFCs comprise the acquisition of software, photocopiers rental services, laptop and desktop computers, printers and local network services; the ones in the non-mandatory, NFCs comprise the purchase of cars, real estate and video-communication services.

In order to lower the risk of contract mismanagement, in 2006, Consip designed and implemented a "monitoring system" to provide assistance to public administrations' efforts at the management stage of the NFCs. The system consists of sending a number of inspectors/auditors[31] all over the country to verify whether anything at the contract management stage has gone wrong, that is, whether any contractor has not performed in compliance with contractual terms.

FIGURE 3: NUMBER OF INSPECTIONS BY NATURE OF THE PUBLIC BODIES



Source: Strengthening the Level of Integrity of Public Procurement at the Execution Phase: Evidence from the Italian National Frame Contracts, 2012.

[31] The inspectors/auditors are external experts from auditing firms, selected, on a competitive principle, by Consip.

An unbiased efficient monitoring system requires a reliable selection mechanism of inspectors/auditors. Only when a random selection mechanism is used – that is, each inspector is allocated to one particular geographical area but the sample of inspectors that actually go and visit public buyers is picked randomly – it is possible to gather high-quality data from inspections in order to carry out potentially insightful statistical analysis.

Consip was able to build a comprehensive dataset of inspections carried out in 2008 within a number of NFCs. The sample comprises 11 NFCs, including 7 mandatory and 4 non-mandatory NFCs. The sample of NFCs can be split in 6 "low-" and 5 "high-service" components, according to the degree of potential complexity of contract management. The results from 743 inspections draw a picture of how many and which types of public agencies were concerned. Most inspections were conducted on local administrations (330, roughly the 44.5 %), followed by central bodies (226, roughly the 30.5 %), health and education bodies (respectively, 96 and 91, that is, the 13 % and 12 %).

The inspections aimed mainly at measuring some performance indicators related to objective quality dimensions concerning the execution of purchases/orders (before public buyers get the item), and those related to other dimensions such as the delivered (intrinsic) quality of goods and post-purchase services (after public buyers have received the item). Each dimension is measured by a "compliance score" evaluated on a 1-5 scale, where quality increases from 1 to 5. These compliance scores were based on five quality dimensions, capturing different aspects of the overall supply: a) the order execution process; b) the intrinsic quality of the goods/services; c) the administration services related to the supply; d) the supplier's call centre services (e.g., average waiting time and/or accuracy of the information provided); e) the supplier's post-purchase technical support (supply ancillary services). The *average total performance index (avg_TPI)* summarizes all compliance scores for each inspection.

B. Results

I. Descriptive statistics

The extent of contract mismanagement looks daunting **– 481 cases of breaches of contracts (out of 743 inspections) were collected, but only in the 2.49 % of such cases penalty clauses were enforced by purchasing entities.** Contract mismanagement seems to be less acute in low-service contracts, suggesting that when contractor's performance is easily describable and verifiable (as, say, for the delivery of IT equipment) contract management may become an easier task. Moreover, local government performs better than central government as a contract manager, which is coherent with lower individual incentives in monitoring the contractor's performance in bigger public organisations such as Ministries.

It should be noted however, that widespread contract mismanagement does not necessarily constitute corrupt or fraud practices. The difficulty of disentangling corruption from fraud, on the one hand, and the two from other explanations of contract mismanagement, on the other, however does not make the problem less severe. It jeopardizes the main objective of competitive procurement processes, that is, the best value for money measured when performance is

delivered and not when tenders are submitted. In principle, there might exist several explanations as to why the level of contract management is that high:

- *lack of knowledge*: it could be argued that as the contracting officers purchasing through NFCs played no role in drafting the latter (Consip is in charge of drafting NFCs), the same individuals are likely to lack knowledge about the relevant contractual details;
- *lack of incentives*: contracting officers have to pay a positive cost in enforcing the contract but do not foresee necessarily any concrete benefit;
- *in-kind compensations*: renegotiations between public buyers and suppliers, especially in case of more complex projects, might take place in that bad performance on one dimension might be compensated by the contractor's additional effort on another task;
- *corruption*: public officers might simply exert low effort in exchange for personal gains.

The analysis aims at identifying those potential factors able to affect the level of provided ex-post quality as well as the public buyer's satisfaction. Consip was able to conduct a rigorous analysis on inferred levels of contractual management. Central government (30 % of total public buyers included in the sample) performs worse in terms of contract enforcement – with an average TPI of 3.84 – relative to local authorities (45 % of total buyers), educational and health administrations, together achieving an average TPI of 4.70. **Nearly the 48 % of inspections in central bodies resulted in non-compliances** (the highest percentage, followed by the education system, 47 %), **while penalty clauses have been enforced only in the 2.78 % of cases.**

Local authorities display a lower ratio of contractual non-fulfilments than those observed for other sectors (35 %) as well as the highest proportion of enforced penalty clauses (nearly 6 %). These findings are confirmed also by the distribution of values based on the classification between mandatory and non-mandatory contracts. Although the latter display the highest level of unsatisfactory performance (over 50 %), the preponderance of local authorities in the sample (141 inspected non-mandatory contracts versus 73 related to central bodies, 25 and 31 respectively referred to the education and the health sector) may again be associated with a better contractual management, as proved by the highest ratio of enforced penalty clauses (7.30 %).

Finally, looking at the degree of complexity, the data supports the intuitive assumption that there are higher levels of performance for standardized supplies, that is, the ones with low-service dimensions. The average TPI is 4.97 vs. 3.09 in the case of high-service dimensions. Figures on non-compliances are also consistent with the previous consideration since the share of non-compliances in the case of high-service components is roughly 2 % higher than the one for low-service components. Surprisingly, however, the fraction of enforced penalty clauses in the latter case is fairly higher than in the case of high-service (5.06 % vs. 2.68 %) suggesting a simpler/less costly process for levying penalties in low-service contracts.

Table 1: Distribution of Non-compliances and Enforced Penalty Clauses by (1) Nature of Public Bodies; (2) the Two Classes of NFCs; and (3) Contract Complexity

Non-Compliances	Central Bodies	Local Authorities	Education Sec.	Health Sec.	Mandatory	Non-mandatory	Low-service	High-service
0	118	213	48	57	303	133	234	202
1	57	94	37	37	139	86	149	76
2	10	15	1	1	13	14	8	19
3	17	6	3	1	6	21	1	26
4	18	1	1	0	9	11	0	20
5	5	1	1	0	3	4	0	7
6	1	0	0	0	0	1	0	1
Tot. NC	108	117	43	39	170	137	158	149
% (on inspections)	47.79 %	35.45 %	47.25 %	40.63 %	35.94 %	50.74 %	40.31 %	42.45 %
Enforced Penalty Clauses	**Central Bodies**	**Local Authorities**	**Education Sec.**	**Health Sec.**	**Mandatory**	**Non-mandatory**	**Low-service**	**High-service**
NO	223	323	91	92	471	260	384	347
YES	3	7	0	2	2	10	8	4
% (on NC)	2.78 %	5.98 %	0.00 %	5.13 %	1.18 %	7.30 %	5.06 %	2.68 %

Source: Strengthening the Level of Integrity of Public Procurement at the Execution Phase: Evidence from the Italian National Frame Contracts, 2012.

II. Regression analysis

In order to further explore the reliability of the descriptive analysis, Consip conducted three types of regression estimates – *OLS*, *Tobit* and *Logit* regressions, in that order. Local administrations are more effective in terms of contract management. Indeed a strong positive correlation might corroborate the idea that smaller public agencies respond better to incentives generated by contracts in which they are likely to play a more active role as well as to more stringent budget constraints. Estimated coefficients show a negative correlation with the non-mandatory feature of NFCs, but raise a further counterintuitive negative effect for the low-service NFCs which conflicts with the most immediate insights of descriptive statistics.

The *Tobit* regression confirms the results of the *OLS* regressions while also reinforcing the magnitude of the most relevant relations. More specifically, the intensity of both the non-mandatory feature of NFCs and the dummy for local

administrations increase with respect to the previous *OLS* model. The direction of effects is also confirmed. The first two covariates, related to the institutional nature of the NFCs and the type of public bodies, are therefore confirmed as factors of primary importance in explaining in which direction our response variable moves. At the same time, the low-complexity feature of NFCs becomes less significant. The estimated regressions reveal that the average TPI is strongly and negatively affected by the non-mandatory feature of NFCs.

The only significant covariate in the *Logit* regression is the one corresponding to non-mandatory NFCs. As already emphasized in the descriptive statistics, penalty clauses were enforced in the 7.30 % of the non-compliance cases.

III. RISK MAPPING: UNDERSTANDING RISKS OF FRAUD AND CORRUPTION IN THE PUBLIC PROCUREMENT CYCLE[32]

Process mapping is among the main techniques employed for identifying risk. This is particularly valid for the complex public procurement process, which carries different types of risks in each of its various stages.[33] According to OECD, despite the available control mechanisms in place, which are relatively advanced in the developed countries, governmental contracts often give room for errors, anomalies, fraud, misuse of public funds and corruption. Most of the irregularities may be contributed to lack of knowledge, coordination and awareness of the purchasing agents, accountants, auditors and officials within the public authority. This is especially the case, as argued by the Consip's analysis,[34] when the public procurement process is carried out by a centralised managing authority. And while such irregularities are susceptible to, for instance, training exercises, misappropriations in the form of fraud and corruption are much more difficult to detect and correct. This is mainly the case because such activities result from the intentional desire to circumvent the rules in pursue of private gain.

A research of the Organisation for Economic Co-operation and Development (OECD) undertook this technique of identifying potential room for fraudulent and corrupt activities by conducting a comprehensive risk mapping research focusing on (1) methods used, at each stage of the procurement cycle, to make a fraudulent transaction look legitimate to observers or auditors; and (2) techniques for misappropriating funds initially earmarked for a transaction, how the funds are used (whether there is personal gain or not), and the networks that make it possible to arrange such dealings. In describing these mechanisms, it is useful to distinguish between risks of fraud and corruption in four stages of the public procurement process:

- in the needs assessment;
- in the planning;
- in relation to the selection method;
- and during the contract management.

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32 OECD. (2009). *OECD Principles for Integrity in Public Procurement*. Available at: http://www.oecd.org/gov/ethics/48994520.pdf

33 For detailed review of the different stages of the public procurement process and associated approaches for fraud and corruption prevention, and enhancing performance, *see section I*

34 For detailed review of the analysis, undertaken by Consip S.p.A, the Italian Public Procurement Agency, on the level of integrity of public procurement at the execution phase, based on evidence from the Italian National Frame Contracts, *see Section II*.

1. Risks in the needs assessment

As elaborated in Chapter 1, the needs assessment is of particular importance, as it decides whether or not there is a need and demand for launching a public procurement. Logically, there are many ways to misappropriate funds even before the contract is awarded in relation to scoping studies, timeliness, cost, etc. The monetary amounts in this case are often small but also easy to conceal and can be multiple in number along the entire contract-planning stage. Whatever the purpose of the scoping study, the mechanism for illegally diverting funds remains the same. The document received may be of high quality or "empty", depending on the type of study's purpose. The reality, however is that often there is no direct correlation between the quality of the study and the value of the diverted amount of money. Therefore, it is essential to correctly estimate how much is at stake and to tailor the amount accordingly.

1.1. Studies below the national threshold

In the case of minor studies, such below the nationally regulated threshold, conventional control mechanisms are unlikely to detect fraudulent behaviour because the public official is generally free to choose a contractor without much jurisdiction. Left with no significant oversight, the risks in the particular situation should ideally be covered by the individual integrity of the public official. If not, there are two general risks, associated with minor studies, which include the official granting the procurement to a "friendly" consultancy or to a commercial entity owned by him/her or family members. In both situations there is a considerable risk of non-competitiveness of the service/product, as well as of over-billing.

The decision-maker could also assign the same study to be conducted by more than one beneficiary, either simultaneously or not. In case they are contracted to deliver simultaneously, the selected firms may form a "cartel", "harmonising" their prices to achieve a wide profit margin (this benefits each party, including the decision-maker, who will receive the amount of money requested from a consultancy that did not take part in the selection process). On the other hand, if the decision-maker allows them to submit their work on different dates, the last parties to deliver their proposals may take advantage of the work done by the first consultancies.

The decision-maker may order studies that will be paid for in instalments (this can theoretically amount to as much as 80 % of the total contract prior to delivery). Afterwards, the contracting authority will not be able to receive the product/service, either because the commercial entity (or not-for-profit organisation) seized to exist or the promised result is "no longer necessary". In both cases, none of the down payments are lost for the people involved in the fraud (the slush fund being used for a kickback to the decision-maker), as the (false) invoices enable the firm receiving the payments to show that the payments correspond to services that have in fact been performed and from which it derived no benefit.

1.2. Studies above the national threshold

Control mechanisms in competitive tendering are much more advanced and enforced. This however does not exclude the risks of fraud and/or corruption – the regulatory framework only limits them. If incentivised to succumb to fraudulent activities, the public authority generally selects the "best value for money offer" after having altered the selection criteria accordingly for suiting a particular entity (e.g. tailoring the criteria for specific individual competence of managers, setting abnormally high minimum requirements, etc.). Even if the competition turns out to be excessive, post-award amendments to the contract are often used to increase profit margins.

In selected cases, where the lowest priced offer wins, the successful tenderer will then have a number of different ways to pay off the decision-maker. In case the contractor has not been forewarned about the commission, he or she is the victim of genuine extortion by the decision-maker, who has officially accepted the tender but will only allow the successful tenderer to begin work after paying a bribe. If the successful tenderer has been forewarned, he or she will have already factored for the amount of the illegal commission into his or her tender.

2. Risks in the planning

As explained in Section I, the precise budget and planning of the public procurement is imperative both for fraud and corruption prevention during the entire cycle, as well as for the quality of the delivered goods/services. Despite the availability of regulated instruments and rules for analysis, budget estimates, administrative and technical documentation, there is much room for misappropriation of public funds. Therefore, this particular stage is a high-risk domain.

2.1. Estimating project costs

When a project is of particular value to the related stakeholders, it could easily be overvalued. The decision-maker may exhibit skills of a "good manager" – the cost having been grossly overestimated to begin with – by successfully completing the project within budget. Undervaluing a project on the other hand is done when the decision-maker must win the approval of the group for which he or she acts, and to which he or she reports (e.g. the city council). The decision-maker does so by maximising the expected benefits while minimising the cost of the investment. This raises the risk of having to ask for additional finances during project execution, believing that once the project is underway such budget increases will not be called into question. These increases, which will take the form of amendments to the initial contract, will also enable him or her to receive "commissions" from the firms to which contracts have been awarded.

2.2. Immediate misappropriation during the document preparation

After the budget estimates have been submitted, follows the preparation of the "specificities" of the proposed project and documents for the selection process – specifications, technical clauses, administrative clauses, etc. The decision-maker can have them prepared in-house, by his own staff, while at the same time commissioning identical work from an outside service-provider. Without expending much effort, the outside firm submits a report that corresponds precisely to what the decision-maker wants.

Technical studies are also prone to risk – even if done well, they can sometimes be difficult to understand and even more difficult to explain to laymen (such as city councillors, for example). It is thus perfectly reasonable to hire an organisation to make the findings understandable. Hiring a private company can however be used to mask commission payments to the decision-maker, as discussed in the previous section on minor studies.

2.3. Arranging for misappropriation in the future

By far, not all misappropriations are immediate. There are more elaborate approaches for future fraud during the preparation of the public procurement specifications.

2.3.1. Affiliated entities

Manipulation of tender procedures through the use of affiliated entities is a common approach, especially when the contracting authority employs a service-provider to prepare the tender documentation. An affiliation of this service-provider with a group that includes another subsidiary likely to submit a tender on the future project, might be tempted to favour companies in its own group by providing them with exclusive information that would enable them to get the contract, or by inserting specifications that companies in its group alone would be able to meet. This substantially increases the risk of fraud and corruption.

In case the contacting authority is not aware of such ties, it can be easily manipulated. This is often the case, as cross-shareholdings, takeovers and mergers have mushroomed in recent years to the point where decision-makers and their staff often do not know which group of companies might stand to benefit from the information and specifications. If there is an awareness of connections however, there is the high risk of the decision-maker attempting to capitalise on them by soliciting a "commission" payment – a collusion, which in this case becomes particularly difficult to prove. Another particularly high risk involves the contracting authority specifying services/criteria that only particular company(ies) can provide/meet.

2.3.2. Non-standard specification

The use of non-standard specification is a practice in which the contracting authority sets unreasonable specifications which stipulate values, highly exceeding the conventional standards. Thus, the selected entity generates large profit

margins, share of which ultimately goes to the inspectors, because this particular scheme would be impossible without the complicity of the contracting authority itself. The only scenario in which the public authority is the manipulated party is in the case of more specialised, complex contracts where a single staff member is entrusted with the specification due to his or her expertise. In such cases, the fraudulent activity could be for the benefit of the individual alone, without the knowledge of the contracting authority.

2.3.3. "Errors"

Among the most effective means of misappropriating substantial amounts of money is by making "errors" in quantities or quality specifications. In general, any estimate will contain a provision of about 5 to 10 % of the total amount of the contract to allow for unforeseen onsite incidents. For "privileged" enterprise however these "unforeseen" events may not be unknown at all. When a corrupt decision-maker or technician informs one of the firms about the actual quantities or quality specifications, the following scenarios are possible: the informed firm neglects to incorporate an especially costly requirement into its estimate and wins the contract thanks to an offer that is lower than its competitors, yet which still leaves it with a wide profit margin; or the firm submits a proposal with an attractive total price in order to win the contract and, in its price list, indicates high unit prices for work that it knows has been underestimated in terms of quantity.

2.3.4. "Omissions"

In many cases the contracting authority ends up empty handed if faced with dispute resolution, simply because the "penalties" section has been deleted from the original document. As a result, if a contractor intentionally fails to meet its commitments, no penalties can be imposed on it. However, the public authority does not in reality leave empty handed, as underneath the scheme there is collusion between decision-maker and contractor. It gives a firm a special advantage by waiving the obligations that bind its competitors, such as deadlines for project completion. It can also lead to payments of subsidies or advances with nothing in return.

2.3.5. "Imposed" maintenance

The term refers to the risk associated with public procurements for services, which require them to be maintained in the long-term either by the installer or an exclusive contractor. This practice is common for IT and office systems bided on highly competitive prices but upon the acceptance of multi-year maintenance contract for servicing the equipment, as well as the compulsory purchase of a range of specific maintenance products. These highly profitable sales enable the supplier to make steady and substantial profits, at least part of which they can return in any form to the decision-maker, who had often selected the particular firm through one of the fraudulent approaches described above.

3. Risks in relation to the selection method

The different types of procedures were discussed in Section I and generally involve either an open procedure, restricted call or negotiated procedure. All of the three were established due to their specific benefits in the context of different types of procurement contracts. And all of them have to be implemented carefully, as there are various types of associated risks.

3.1. Abuses of open calls for tenders

As discussed in section I, open procedures are all about maximum transparency, clearly defined specifications and deadlines. Therefore, a strong indicator of fraudulent activities and increased risks of corruption have to do with tempering with either the tender's documentation publicity, subjectivity of criteria, deadlines or access to documentation.

3.2. Restricted calls for tenders

As a general rule, in the restricted calls for tenders everything proceeds "smoothly" and the contracts are split among a restricted number of selected suppliers. The contracting prefers to select familiar firms because due to their track record of quality and compliance. In turn, the contractors on the list have no interest in seeing new competitors added to their group. They thus seek to retain the trust of the decision-maker by supplying suitable services and, if necessary, by occasionally offering personal gains to individual public officials.

In reality, the short-list approach of the restricted procedures often implies a group of firms, working together to "stay on the list". This could be accomplished in several different formulations, including group agreements among the members of the list, dividing contracts (on their own criteria, e.g. work planning, deadlines, etc.) without having to compete among themselves; official or secret associations to nominee the winning offer; implementation of decisions, where the selection process is only a formal procedure, as the firms have agreed that only one of them will propose a winning tender (others intentionally put forward applications with unrealistic values and deadlines), while competitors who have deliberately ruled themselves out of the contract receive kickbacks – for example, they may be actively involved in the operation as sub-contractors; or stock market manipulations in the case of large contracts, awarded through a conspiracy, where those in the know can use this information to their own advantage (e.g. purchase cheap shares in the successful company before the outcome of the call for tender has been announced).

3.3. The negotiated procedure

All negotiated contracts – when only chosen suppliers are invited to negotiate a contract – are suspect in the eyes of inspectors because direct negotiation between a decision-maker and a supplier can give rise to all sorts of manipulation leading to fraud, misappropriation of public funds and corruption. This is why use of this procedure has only been permitted in a number of specific cases (those listed in EU Directives and various national regulations).

Procedures to avoid issuing a call for tender are a separate risk of potentially fraudulent activities. Often perpetrators are making use of the set national threshold above which a full cycle of the public procurement process is initiated. The common practice is either deliberately keeping purchases of goods/services below the threshold or splitting the contract into smaller orders, which are just below the starting point of the public procurement system (PPS).

4. Risks during the management of the contract

As confirmed by the Consip's analysis,[35] discussed in Section II, the execution phase of the public procurement cycle is prone to non-compliance, corruption and fraudulent activities. Once the contract has been awarded, there are several common ways that misappropriation can occur during the execution of work, the supply of a service or the purchase of supplies.

4.1. Delivery of supplies

Misappropriation during the delivery of supplies is relatively easy to detect or uncover. It may take the form of discounts, sometimes offered directly to the buyer. The supplier can open an account in the name of the buyer. This account is credited with amounts corresponding to the discounts omitted from the invoices. The discount can also be paid by transferring the sum into an account that does not belong to the buyer's administration but to an association with a very similar name with which the buyer is linked or this process can be used to endow parallel structures (associations linked to the buyer, for example) with financial or material assets. In a third scenario, part of a deal is offered to the buyer.

Amending the order is another technique used to misappropriate funds. A product is ordered and an invoice raised but just before the product is due to be delivered, the supplier is asked to modify the order and supply a cheaper product. However, the original invoice is sent to the local authority. Since the price paid is higher than the value of the goods delivered, the supplier provides the customer with a credit voucher or a cheque to make up the difference. However, the credit voucher or cheque is made out to a similar beneficiary that resembles, but is not the same as the purchaser.

4.2. Supply of services

The supply of services may also give grounds for fraud and corruption (though to a lesser extent with regard to the latter, except for cases when bribes are involved to increase profit margins), mainly in terms of tax evasion.

Among the common risks of fraud is the modification of services. In most cases official from the contacting authority is complicit in agreeing with the contractor to downgrade the quality of a particular service, in order to increase profit, part of which goes to the official. Double payments is additional approach where a

[35] For detailed review of the analysis, undertaken by Consip S.p.A, the Italian Public Procurement Agency, on the level of integrity of public procurement at the execution phase, based on evidence from the Italian National Frame Contracts, *see Section II*.

contract is awarded for a study, which either the decision-maker or the supplier already possesses.

4.3 Carrying out the work

This is the most complex technique to detect because public works and buildings are constructed in stages, each of which may be awarded to different contractors, not necessarily linked through groups or subcontracting contracts. Misappropriation arises from the existence of many types of so-called preparatory works, which are often dealt with independently of the contract itself; additional work, regardless of the reasons for such work; and work which will not be carried out or which will not comply with the selection process specifications.

CHAPTER II

FRAUD AND CORRUPTION IN PUBLIC PROCUREMENT: INDICATORS OF PROCUREMENT RISK

Familiarising with the main guidelines and approaches for increased integrity throughout the complex system of the public procurement and the ability to understand the nature, types and structure of risks is a solid foundation for any practitioner. Chapter I achieved this objective by discussing state of the art practices in the area of public procurement. Chapter II goes deeper into the methodological aspects by reviewing risk indicators of procurement fraud and corruption.

The chapter begins with a brief overview of the general nature of fraud risk management from the perspective of the world's largest and leading professional body of management accountants – the Chartered Institute of Management Accountants (CIMA). The private sector viewpoint and extensive experience, provided by an assessment of the European Bank for Reconstruction and Development (EBRD) will give insights into the way the international financial sector is looking at the issues. A review of existing procurement fraud indicators and corruption diagnostic questions from the perspective of the United States, will further contribute to the widening of the horizon.

As a conclusion, stepping, on the one hand on the discussed in Chapter 1 methods for increasing integrity and performance during the procurement process and the identified risks, and the reviewed fraud and corruption indicators on the other, the section will review a state of the art *Methodology for assessing procurement systems (MAPS)*, jointly developed by the World Bank and the OECD Development Assistance Committee (DAC).

This chapter draws extensively on the following sources:

- The Chartered Institute of Management Accountants (CIMA). (2008). Fraud risk management A guide to good practice. Available at: http://www.cimaglobal.com/documents/importeddocuments/cid_techguide_fraud_risk_management_feb09.pdf.pdf
- European Bank for Reconstruction and Development (EBRD). (2011). *Public procurement assessment. Review of laws and practice in the EBRD region*. Available at: http://www.ebrd.com/downloads/legal/procurement/ppreport.pdf
- U.S. General Services Administration Office of Inspector General Office of Audits. (2012). *Procurement Fraud Handbook*. Available at: http://www.gsaig.gov/?LinkServID=6486B647-A5DF-C154-010A408470CAE0B8&showMeta=0

- United States Agency for International Development (USAID). (2006). *The Corruption Assessment Handbook*. Available at: http://www1.worldbank.org/publicsector/anticorrupt/USAIDCorAsmtHandbook.pdf
- Organisation for Economic Co-operation and Development (OECD.). (2009). Methodology for assessing procurement systems (MAPS). Available at: http://www.oecd.org/dac/effectiveness/45454394.pdf

I. RISK MANAGEMENT: AN OVERVIEW[36]

Broadly, risk management is defined as the process of understanding and managing risks that the entity is inevitably subject to in attempting to achieve its objectives. For an organisation, risks are potential events that could influence the achievement of the organisation's objectives. Risk management is about understanding the nature of such events and practices and, where they represent threats, making positive plans to mitigate them. Fraud is a major risk that threatens both the public and private sectors, not only in terms of financial health but also their performance and impact of operations.

Identifying risk areas is an essential part of risk management. It is essential to understand how and where risks occur, why and how they evolve in any particular process. It is important to ensure that risk is carefully defined and explained to facilitate further analysis. There are several main techniques of analysis when it comes to identifying risk:

TABLE 2: MAIN TECHNIQUES OF IDENTIFYING RISK

Main techniques of indentifying risk	workshops and interviews
	brainstorming
	questionnaires
	process mapping
	comparison with other organisations/countries
	peer discussions

Source: CIMA, 2008.

Fraud risk is one component of operational risk**.** Operational risk focuses on the risks associated with errors or events in transaction processing or other business operations. A fraud risk review considers whether these errors or events are the result of a deliberate act designed to benefit the perpetrator. As a result, fraud risk reviews should be detailed exercises conducted by teams combining in depth knowledge of the business and market with detailed knowledge and experience

[36] The Chartered Institute of Management Accountants (CIMA). (2008). *Fraud risk management A guide to good practice*. Available from: http://www.cimaglobal.com/documents/importeddocuments/cid_techguide_fraud_risk_management_feb09.pdf.pdf

of fraud. It is also important that fraud risks are assessed for each area of the process in question. Risk management should constitute for a key part in the management process.

The truth of the matter, however, is that no system is completely fraud proof. Therefore, it is wise to rely on, at least, some general indicators, which could be integrated as part of an overall risk management system. The Chartered Institute of Management Accountants (CIMA) provides examples of general indicators for procurement fraud (see Table 3 below).

TABLE 3: GENERAL INDICATORS OF PROCUREMENT FRAUD

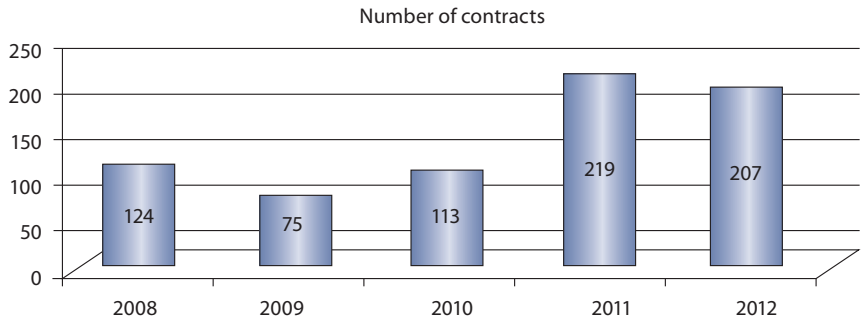
Before contract award	Disqualification of suitable tenderers
	"Short" invitation to tender list
	Unchanging list of preferred suppliers
	Consistent use of single source contracts
	Contracts specifications that do not make commercial sense
	Contracts that include special, but unnecessary specifications, that only one supplier can meet
	Personal relationships between staff and suppliers
During the contract award process	Withdrawal of a lower bidder without apparent reason and their subsequent sub-contracting to a higher bidder
	Flexible evaluation criteria
	Acceptance of late bids
	Changes in the specification after bids have been opened
	Consistently accurate estimates of tender costs
	Poor documentation of the contract award process
	Consistent favouring of one firm over others
After the award of contract	Unexplained changes in the contract after its award
	Contract awarded to a supplier with a poor performance record
	Split contracts to circumvent controls or contract conditions
	Suppliers who are awarded contracts disproportionate to their size
	Frequent increases in the limits of liability
	Frequent increases in contract specifications

Source: CIMA, 2008.

II. PERSPECTIVES FROM THE FINANCIAL SECTOR: THE EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT (EBRD)

In 2012, a total of 207 contracts worth EUR 1,276 million were signed with EBRD's financing totalling EUR 761 million. Additionally, the Bank signed 43 contracts worth EUR 72 million under the Nuclear Safety and Decommissioning Funds managed by the Nuclear Safety Department (NSD). As far as the choice of procedure is concerned, 86 % of all contracts (95 % in value) were subject to the Bank's open tendering procedure.[37]

FIGURE 4: EBRD DATA ON FIVE-YEAR DYNAMICS[38]

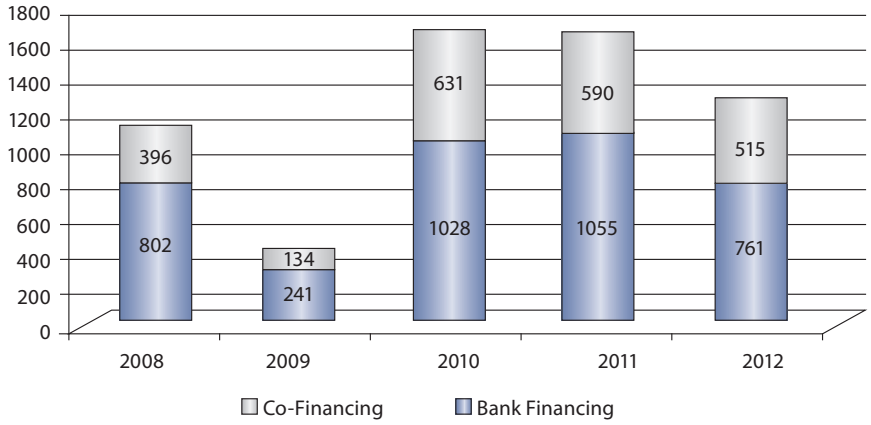


Public Sector

• Contracts	738
• Total value	EUR 6.15 billion
• EBRD financed	EUR 3.89 billion

The highest total amount of contract value (in EUR):

• Ukraine	1.05 billion
• Kazakhstan	0.72 billion
• Romania	0.69 billion
• Russian Federation	0.57 billion
• BiH	0.47 billion



[37] Presentation by Mr. Evgeny Smirnov, Senior Procurement Specialist at EBRD, during a conference *"EU's Financial Interests under Threat: New Approaches in Assessing Risks in Public Procurement"*, 01/11.2013, Sofia, Bulgaria.

[38] *Ibid.*

It is essential that corrupt practices in the procurement process are addressed from the project design stage by identifying and removing the situations and relationships which create an environment conducive to corruption.

$$C = f\left(\frac{M \times A \times I}{R \times T \times E} \pm U\right)$$

Legend:

C = Corruption
A = Authority
R = Responsibility
E = Ethical Standards
M = Monopoly
I = Influence
T = Transparency
U = Undefined factors[39]

Core Principles Benchmark and Indicators[40]

Figure 5: EBRD Core Principles for an Efficient Public Procurement Framework

Source: Public Procurement Assessment: Review of laws and practice in the EBRD region, 2011.

EBRD's public procurement assessment is founded upon eleven core principles, which were identified after a thorough review of established international procurement best practices. Key indicators monitor the degree of compliance with regard to the principles and protect the system against fraud risks.

1. Accountability of public sector spending:

- a clear chain of responsibility between management, budget and procurement official;
- a sound business case and contract profile established before the tendering process is launched;
- the technical specifications for a tender should be based on relevant quality characteristics and/or performance requirements and remain unchanged during the entire process, save for reasonable exceptions when negotiated procurement methods are employed;
- the opportunity to reject all offers if valid tenders are received in response to the terms

[39] *Ibid.*

[40] European Bank for Reconstruction and Development (EBRD). (2011). *Public procurement assessment. Review of laws and practice in the EBRD region.* Available at http://www.ebrd.com/downloads/legal/procurement/ppreport.pdf

of reference should be limited to obvious cases, requiring wholly justified reasons;
- the responsibility for paying compensation to tenderers if the tender is cancelled should lie with the contracting entity.

2. Integrity of the procurement process:

- the behaviour of management and procurement officials is consistent with the public purpose of their organisation;
- there are measures to limit the scope for undue influence;
- conflict of interest management is in place for all stages of the procurement process;
- there is broad disclosure of public investment and procurement information, provided equally to all interested parties;
- communication between the contracting entity and tenderers should be conducted by the best available means (preferably electronic) to provide a record of the content of the communication;
- there are limited opportunities for re-negotiations or amendments to final tenders, proposals and signed public contracts.

3. Adequate level of transparency:

- the law should promote the extensive use of e-Procurement as one of the methods to prevent collusion with tenderers;
- there should be effective, official and dependable publicity of procurement opportunities, through a single point of access;
- there should be real time recording of the process, preferably through electronic means, accessible to the public free of charge;
- tender documents should be published electronically, and free of charge to the public;
- contract notices and a contract award notice should be published for all public contracts finalised by the contracting entity.

4. Fair competition:

- the law should promote fair competition;
- prevent discrimination and eliminate domestic preferences;
- tenders and tenderers of equivalent status should be given equal treatment, without regard to nationality, residency or political affiliation;
- there should be clear eligibility rules and general understanding of grounds for exclusion;
- it should be possible to distinguish between the public procurement eligibility criteria, qualification and technical requirements to be met by tenderers;
- minimum tender deadlines ensure a level playing field;
- where tenderers are eliminated, a sufficient standstill period or an alternative procedure should be in place to provide for immediate protective measures;
- a competitive contract established through the tendering process, permitting both tendering and competitive negotiations, wherever appropriate, ensure a fit-for-purpose outcome;
- the selection of tender type or procedure should be based on the value of the tender, specifics of the purchase and the contract profile;

- it is necessary to stipulate reasonable technical specifications, requirements and suitable award criteria, adequate to the scope and value of the contract prior to embarking on the tendering process;
- in the case of an abnormally low tender, it should be possible to ask for clarification and either reject the tender or increase the contract security to mitigate or limit perceived risks.

5. Economy:

- formal requirements essential for transparency should be kept simple;
- participation costs should be kept low;
- there should be reasonable enforcement costs;
- it should be possible to submit an inquiry or tender electronically in a confidential manner;
- aggregation of lots should be possible;
- whole life cycle costing should be used, where appropriate.

6. Efficiency:

- there should be an accurate and unbiased assessment of the contracting entity's needs;
- sound procurement planning is essential;
- appropriate budget procedures are needed;
- methods of tender evaluation should consider both the quality and cost of purchase;
- contract terms and conditions should be fair and balanced and reflect the best available business practice;
- accurate contract management is required.

7. Value of proportionality:

- the formality of the procedure should reflect the scope and size of the public contract;
- the value and scope of the contract should be aligned with the choice of the contract type and procurement method;
- there should be cascaded (monetary and other) thresholds to instruct contracting entities how to produce an effective procurement strategy for a public contract;
- the contracting entity should allow proposals, offers or quotations to be formulated in a language customarily used in international trade except where, due to the low value of the goods, works or services to be procured, only domestic tenderers are likely to be interested.

8. Uniformity:

- the law should be unitary, comprehensive and cover all public contracts.
- clarity is needed in determining the requirements of contracting entities of a different status;
- exemptions from regulation to contracts outside the public procurement domain should be limited for evident and justified reasons.

9. Stability:

- frequent changes of the law disrupt procurement capacity building.

10. Flexibility:

- appropriate development of secondary and tertiary legislation is necessary.

11. Enforceability:

- review and remedies mechanisms should be able to assess the compliance of the contracting entities and employ corrective measures when necessary;
- dedicated national regulatory agencies should be professional, independent and provide audit and monitoring of the sector to drive up public procurement (PP) sector capability.

III. FRAUD DETECTION AND PREVENTION: THE AUDITOR'S APPROACH

Although the primary responsibility of the auditor does not account for fraud detection and prevention, the *ISA 240*[41] does call auditors to include methods for identifying potential cases of fraud when planning and conducting the audit. In particular, it requires auditors to:

- discuss the risk of fraud with management and those charged with governance;
- discuss with the audit team the susceptibility of the accounts to material misstatements due to fraud;
- consider whether one or more fraud risk factors are present;
- perform audit procedures to address the risk of management override;
- test journal entries and review accounting estimates for bias;
- understand the business rationale for transactions outside the normal course of business;
- obtain representations from management;
- bear in mind the implications for money laundering reporting (taking care not to tip off the client).[42]

The United States auditing standards provide for more detailed description on roles and responsibilities in relation to fraud. *SAS 99*[43] is more prescriptive about the role of the auditor in preventing and detecting fraud and error and was designed to create a substantial change in auditors' performance, thereby improving the potential to detect material misstatements due to fraud. The requirements do not only affect auditors. Given the nature and extent of the new procedures in both ISA 240 and SAS 99, management should plan to provide auditors with more information and open themselves up to more extensive fraud detection procedures.

41 International Standards on Auditing 240 (ISA 240) on the Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements.

42 The Chartered Institute of Management Accountants (CIMA). (2008). *Fraud risk management A guide to good practice*. Available at: http://www.cimaglobal.com/documents/importeddocuments/cid_techguide_fraud_risk_management_feb09.pdf.pdf

43 Statement on Auditing Standards No. 99: Consideration of Fraud in a Financial Statement Audit, commonly abbreviated as SAS 99, is an auditing statement issued by the Auditing Standards Board of the American Institute of Certified Public Accountants (AICPA) in October 2002.

Insights from the US Office of Inspector General (OIG) for General Services Administration (GSA)[44]

The examination-level auditing standards require that auditors "design the engagement to provide reasonable assurance of detecting fraud, illegal acts, or violations of contract provisions….that could have a material effect on the subject matter of the attestation engagement."[45]

Generally, the GSA OIG performs two types of audits. The Assistant Inspector General for Auditing (JA) performs both pre-award and post-award examinations of GSA Multiple Award Schedule (MAS) federal procurement contracts. Pre-award audits aim to determine the adequacy of pricing and disclosures for upcoming contracts and contract extensions. On the other hand, post-award audits typically examine the contractor's practices in previous time periods, examining transactions already completed. The other general type of audits concerns construction contract audits, which include the evaluation of submitted cost or pricing data relative to architecture and engineering proposals (A&Es), construction claims, change orders, and contract terminations. The objectives of these audits are to determine whether the proposed costs are allowable, allocable, and reasonable, as well as supported by appropriate accounting records. This is typically accomplished through the examination of costs and records maintained by the contractor.

The GSA OIG pursues multiple cases of criminal and civil fraud. For example, in the first half of fiscal year 2010 alone, GSA OIG was involved in a US 400 million criminal fine imposed upon US defense contractor for conspiring to defraud the United States, while during the same period GSA OIG participated in recovering nearly US14 million in contract fraud settlements. The types of audits and investigations with regard to fraudulent activities in the area of procurement rely on set of indicators, related to identified areas of fraud risk.

1. General Fraud Indicators

- Contractor intentionally delays inception of audit.
- Contractor delays in producing requested data or documents.
- Contractor documents are all photocopies rather than originals.
- Contractor files, reports, data, or invoices are "missing".
- Contractor refuses to provide access to records.
- Contractor has high turnover of management.
- Key personnel have been reassigned or terminated.
- The organizational structure is overly complex.
- Contractor has a lack of segregation of duties.
- Contractor has experienced financial difficulties/layoffs.
- Financial assertions lack support.

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[44] The Office of Inspector General (OIG) is an independent unit established by law which is responsible for promoting economy, efficiency, and effectiveness and detecting and preventing fraud, waste, and mismanagement in the General Services Administration's (GSA) programs and operations.

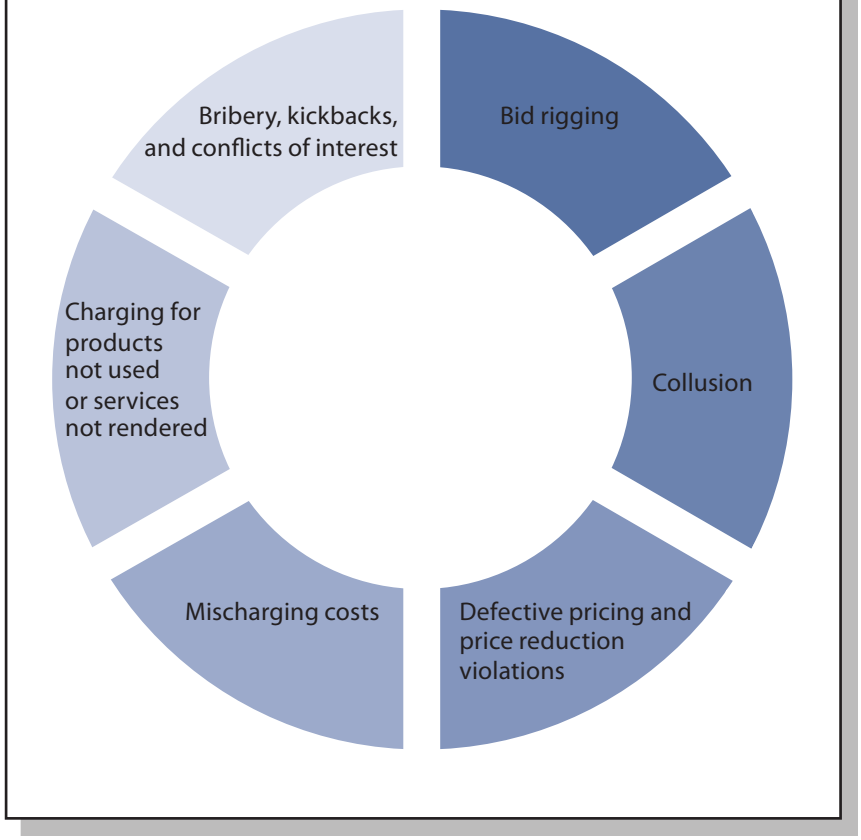
[45] U.S. General Services Administration Office of Inspector General Office of Audits. (2012). *Procurement Fraud Handbook*. Available at: http://www.gsaig.gov/?LinkServID=6486B647-A5DF-C154-010A408470CAE0B8&showMeta=0

- Unusual variances between estimates and actual assertions.
- Documents have been altered.
- Attorney involvement relative to routine audit matters and access to records.

2. Areas and indicators of fraud risk

2.1. Associated indicators

FIGURE 6: AREAS OF FRAUD RISK



Source: Procurement Fraud Handbook, GSA IOG, Office of Audits, 2012.

2.1.1. Bid rigging

- Companies submit bids with identical individual line items or lump sums.
- Bids greatly exceed the agency's estimate of contract value or exceed comparable bids by the same companies in other areas similar in demographics.
- Winning bidder awards subcontracts to one or more of the losing bidders.
- There is an indication of last minute alteration of bids.
- A large gap exists between the winner's proposed pricing and losing bidders' pricing.
- All bids are very close in price (indicates that competitors may be communicating and sharing bidding information).
- All bids are consistently high.
- Multiple bids have relatively the same increment in pricing.
- A company gives different bids for the same line item on different contracts that are close in time.
- Evidence indicates that multiple bids may have come from the same individual (such as same spelling or mathematical errors, same handwriting, same address, same fax or phone numbers, or bids appear poorly prepared).
- Qualified bidders inexplicably withdraw valid bids, especially if multiple bids are withdrawn in the same time frame.
- Qualified bidders do not submit bids.
- Prices inexplicably drop when a new bidder (most likely uninvolved in the scheme) enters the bid.
- Competitors seem to interact and communicate with each other frequently when bids are due.

- A pattern in behaviour exist, such as a certain contractor always or never wins a bid, or all contractors win an equal volume of business/contracts over time.
- Patterns exist in which contractors seem to win most contracts in specific geographical area;
- Same bidders always bid against each other or never bid against each other.
- Different bidders appear to specialize in government jobs exclusively.
- Contractors bid as joint ventures when either contractor had the capability of performing the job individually.

2.1.2. Collusion[46]

- Market characteristics such as a concentrated market dominated by a few major players and high barriers to entry.
- Markets involve standardized products or common product substitution.
- Competitors announce price increases at the same time, for the same amount, or have staggered price increases with some common pattern, such as appearing to take turns going first.
- Competitors all offer the same discount and refuse to negotiate lower discounting;
- Competitors have same pricing for line items.
- All suppliers' prices appear uniform and suppliers refuse to negotiate those prices.

2.1.3. Defective Pricing or Price Reduction Violations

- Reoccurring or standard discounts or concessions are found that were not disclosed.
- There were delays in releasing data to the government.
- Contractor failed to update pricing data.
- Contractor failed to disclose favourable customer agreements, including rebates.
- Better pricing is available on the open market for comparable products or services.
- Data for the period examined does not tie to financial statement information without viable explanation of deviation.

2.1.4. Mischarging Costs

- Costs billed greatly exceed estimates.
- Incurred costs fall considerably below estimates.
- Proposed costs do not seem directly related to the contract under which they were submitted (may relate to one of the other contracts).
- Proposal documentation uses old, outdated prices for support.
- Vague terms used to bid materials based solely on management judgment or rough estimates.

[46] Note: Many of the indicators for bid rigging may also be applicable to collusive activity.

- Material specified in the contract exceeds that which is required for the job.
- Delivery documents show addresses different from the specified job site.
- Documents (such as purchase orders and timecards) appear to be altered.
- Supporting documentation is poor quality or illegible.
- Approval signatures on purchase orders or timecards are missing.
- Contractor employees rarely charge leave or vacation.
- Increase in labour hours with no corresponding increase in materials used or shipped.
- Actual hours and dollars consistently at or close to budgeted amount.
- There are discrepancies in handwriting on purchase orders or timecards.
- Labour time and charges seem inconsistent with project progress.
- Time cards are made out by the supervisor and not by the individual employees.

2.1.5. Charging for Products Not Used or Services Not Rendered

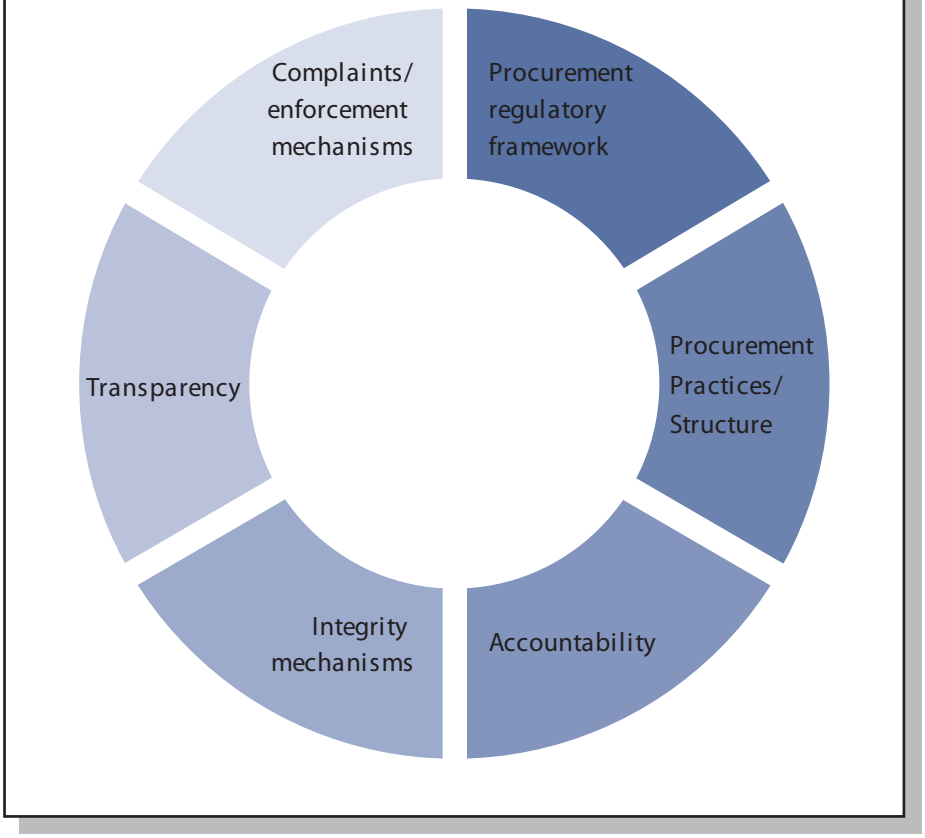
- Costs greatly exceed estimates.
- Duplicate billings for the same products or services.
- Inexplicable delays.
- Goods purchased are in excess of needs.
- Delivery location is not the office, plant, or job site.
- Contractor cannot explain why certain amount of materials was required for the job.
- Equipment on job site appears to be inoperable.
- Timecards are not signed by respective employees.
- Timecards are not approved by employees' supervisors but rather a member of management not typically responsible for such work.
- Employees bill at multiple distant job sites on same day.
- Employees bill for more hours than typically worked in a work day.

2.1.6. Bribery, Kickbacks, or Conflicts of Interest

- Overly friendly relationship between government employees and contractors.
- Socialising outside of the work environment.
- Employees living beyond their means.
- Employment of family members by a contractor.
- Unexplained increases of business with one contractor or subcontractor.
- Many change orders.
- Change orders with a high percent of original costs.
- Indications of unreported poor performance of contractor.
- Defining statements of work and specifications to fit the products or capabilities of a single contractor.
- Government personnel or their families acquiring stock or a financial interest in a contractor or subcontractor.
- Government personnel discussing possible employment with a contractor or subcontractor for themselves or a family member.
- Improperly disqualifying the bids or proposals of qualified contractors.

IV. CORRUPTION DIAGNOSTIC QUESTIONS IN PUBLIC PROCUREMENT

FIGURE 7: CORRUPTION DIAGNOSTIC AREAS IN PUBLIC PROCUREMENT



Source: The Corruption Assessment Handbook, Draft Final Report, 2006.

Provision of corruption diagnostic questions is another approach aiding the conduct of in-depth analyses of major government sectors and functions, helping practitioners target major sources of corruption vulnerability and outline strategies and concrete actions, likely of reducing opportunities for corrupt practices. *The Corruption Assessment Handbook*[47] is a state of the art, comprehensive guide, intended to provide the United States Agency for International Development (USAID), its Missions and their implementing partners, with an integrated approach and set of practical tools to conduct tailored corruption assessments efficiently, but at a level detailed enough to produce targeted and prioritised recommendations for programming.[48]

The Handbook conducts in-depth examination of multiple sectors, also suggesting a set of questions to examine major aspects of public procurement policies and practices that can be prone to corruption. The Guide groups the questions in six diagnostic areas.

[47] The Corruption Assessment Handbook is prepared by Bertram I. Spector, Michael Johnston, and Svetlana Winbourne, Management Systems International (MSI).

[48] United States Agency for International Development (USAID). (2006). *The Corruption Assessment Handbook*. Available at: http://www1.worldbank.org/publicsector/anticorrupt/USAIDCorAsmtHandbook.pdf

Table 4: Sample Corruption Diagnostic Questions in the Area of Public Procurement

Procurement regulatory framework
Does the law require criteria concerning the modification of awarded/ongoing contracts? Are these criteria followed in practice?
Is there formal operational independence of the public contracting system? Is the public contracting system independent in practice?
What kind of tender board is in place? Are the tender board members selected on a merit basis?
Is it mandatory to subject contracting processes to the budget and plans of government? Is this done?
Does the law on public contracting include oversight mechanisms (via congress/parliament) to monitor public contracting?
Procurement Practices/Structure
Is there an e-procurement system operating in the country? If yes, what areas does it cover?
Are procurement responsibilities distributed differently in the cases of privatization processes?
Is parliamentary lobbying for the inclusion/exclusion of projects in plans, programs and budgets legally regulated? Is it regulated in practice?
Are technical specifications clear and non-discriminatory between suppliers?
Do instructions to bidders include all the information necessary to prepare responsive bids, such as eligibility requirements, basis of bid, language and currency of bid, the source and date of the exchange rate to be used?
Accountability
If there is a central procurement agency, does it report to legislature?
Is there an institution that is responsible for supervising adherence to procurement regulations? What powers does it have and how effective is it in practice?
Integrity mechanisms
Are there any formal restrictions or criteria for acceptance of gifts by public officials? Are these restrictions/criteria followed in practice?
Are public employees who participate in procurement processes prevented from contracting afterwards with the individuals/companies that participate in such processes? If yes, is this rule followed?
Are there regulations and mechanisms in place that prevent high-level public officials to have an influence over the scope and magnitude of public investment projects?
Transparency
Are all relevant contracting process documents accessible to the public?
Does the procurement law require the publication of decisions on changes and adjustments of contracts in execution? Are these decisions published?
Does the procurement law require the publication of the contract implementation monitoring results? Are these results published?
Complaints/enforcement mechanisms
Are there provisions for whistleblowing on misconduct in contracting procedures? Have these provisions proved effective?
Are actions detrimental to public resources in public contracting qualified as criminal offences? Are there actual cases of prosecution?
Does the law consider civil or social control mechanisms to monitor the control processes of public contracting? What happens in practice?
How successfully has corruption been targeted by the contracting system, as an internal problem? An external problem?

Source: The Corruption Assessment Handbook, Draft Final Report, 2006.

V. METHODOLOGY FOR ASSESSING PROCUREMENT SYSTEMS (MAPS)[49]

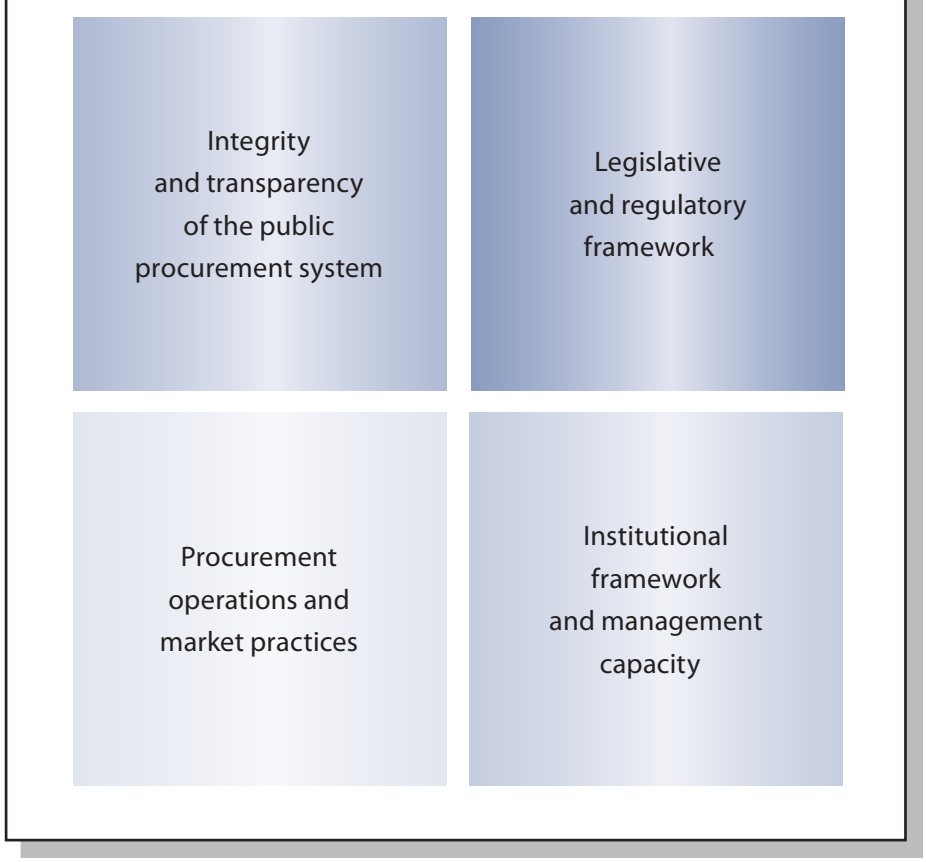
The reviewed so far in Chapter II various indicators of procurement risks, presented from the different perspectives of auditors and practitioners, as well as the approach of the financial sector to an efficient public procurement framework, strived to equip relevant stakeholders with state of the art instruments to protect the procurement cycle from fraudulent and corrupt activities. The effectiveness of these tools, as also mentioned in Chapter I in relation to the approaches of enhancing integrity at each stage of the public procurement cycle, highly depends on the soundness of entire procurement system (that is its institutional architecture, legal framework, operations, control and oversight mechanisms, integrity, etc.) there are (to be) integrated in. Therefore the current chapter concludes with review of the comprehensive *Methodology for assessing procurement systems (MAPS)*, jointly developed by the World Bank and the OECD Development Assistance Committee (DAC). The MAPS's Base-Line Indicators (BLIs) and the Compliance/Performance Indicators (CPIs) set the international standards for assessing the quality and performance of national public procurement systems.

A. Base-Line Indicators (BLIs)

The baseline indicators present a "snapshot" comparison of the actual system against the international standards that the BLIs represent. Though the indicators alone cannot give a full picture of the complex procurement system, the BLIs represent a unique tool used for identifying strengths and weaknesses of the system. All baseline indicators contain sub-indicators which are numerically assessed. The **scoring** ranges from 3 to 0 for each baseline sub-indicator. A score of "**3**" indicates full achievement of the stated standard. A score of "**2**" is given when the system exhibits less than full achievement and needs some improvements in the area being assessed, and a score of "**1**" is for those areas where substantive work is needed for the system to meet the standard. A rating of "**0"** is the residual, indicating a failure to meet the proposed standard. The application of the BLIs is based on a review of the existing regulatory framework and the institutional and operational arrangements. Depending on the desired level of detailness of the system's strengths and weaknesses, the aggregation of the scores may be performed on indicator level or pillar level.

[49] OECD. (2009). Methodology for assessing procurement systems (MAPS). Available at: http://www.oecd.org/dac/effectiveness/45454394.pdf

FIGURE 8: MAIN PILLARS ADDRESSED BY THE BLIS



Source: MAPS, 2006.

Pillar I. Legislative and Regulatory Framework

Indicator 1: *Public procurement legislative and regulatory framework achieves the agreed standards and complies with applicable obligations.* The indicator assesses the legal and regulatory instruments in any given public procurement system (PPS). The eight sub-indicators examine the entire spectrum of the legal framework – from the highest level (national law, act, regulation, decree, etc.) down to detailed regulation, procedures and bidding documents formally in use.

The eight sub-indicators look at:

a. scope of application and coverage of the legislative and regulatory framework;
b. procurement methods;
c. advertising rules and time limits;
d. rules on participation;
e. tender documentation and technical specifications;
f. tender evaluation and award criteria;
g. submission, receipt and opening of tenders;
h. complaints.

Indicator 2: *Existence of Implementing Regulations and Documentation*. This indicator verifies the existence, availability and quality of implementing regulations, operational procedures, handbooks, model tender documentation, and standard conditions of contract. Six sub-indicators look at:

a. implementing regulation that provide defined processes and procedures not included in higher-level legislation;
b. model tender documents for goods, works, and services;
c. procedures for pre-qualification;
d. procedures suitable for contracting for services or other requirements in which technical capacity is a key criterion;
e. user's guide or manual for contracting entities, covering the existence of a user's guide or manual for contracting entities – *availability of such information is a simple tool, which however could help in detecting many types of the risks, which were discussed so far in Chapters I and II*;
f. General Conditions of Contracts (GCC) for public sector contracts covering goods, works and services consistent with national requirements and, when applicable, international requirements.

Pillar II. Institutional Framework and Management Capacity

Indicator 3: *The public procurement system is mainstreamed and well integrated into the public sector governance system*. This indicator looks at the architecture of the procurement system to determine its suitability to discharge the obligations prescribed in the law without gaps or overlaps. In essence, though its four sub-indicators, the approach examines the degree of integration of the procurement system with other parts of government and particularly with the financial management system. The four sub-indicators make sure that (a) procurement planning and associated expenditures are part of the budget formulation process and contribute to multiyear planning; (b) budget law and financial procedures support timely procurement, contract execution, and payment; (c) there is no initiation of procurement actions without existing budget appropriations; and (d) systematic completion reports are prepared for certification of budget execution and for reconciliation of delivery with budget programming.

Indicator 4: *The country has a functional normative/regulatory body*. Although this indicator refers to a normative/regulatory body, what matters most is not the existence of a body but the existence of the functions within the public sector and the proper discharge and coordination of them. The assessment of the indicator is based on four sub-indicators, ensuring whether:

a. the status and basis for the normative/regulatory body is covered in the legislative and regulatory framework;
b. the body has a defined set of responsibilities including but limited to providing advice to contracting entities; drafting amendments to the legislative and regulatory framework and implementing regulations; monitoring public procurement; providing procurement information; managing statistical databases; reporting on procurement to other parts of government; developing and supporting implementation of initiatives for improvements of the PPS; and providing implementation tools and documents to support training and capacity development of implementing staff;

c. the body's organisation, funding, staffing, and level of independence and authority (formal power) to exercise its duties is sufficient and consistent with the responsibilities;
d. the responsibilities provide for separation and clarity so as to avoid conflict of interest and direct involvement in the execution of procurement transactions.

Indicator 5: *Existence of institutional development capacity*. The objective of this indicator is to assess the extent to which the country or agency has systems to support and monitor the performance of the entire system, and to formulate and implement improvement plans. Four sub-indicators check whether:

a. the country has a system for collecting and disseminating procurement information, including tender invitations, requests for proposals, and contract award information;
b. the country has systems and procedures for collecting and monitoring national procurement statistics;
c. a sustainable strategy and training capacity exists to provide training, advice and assistance to develop the capacity of government and private sector participants to understand the rules and regulations and how they should be implemented;
d. quality control standards are disseminated and used to evaluate staff performance and address capacity development issues.

Pillar III. Procurement Operations and Market Practices

Pillar III differs from Pillars I and II in a sense that it is not looking at the legal/regulatory or institutional systems in a country but more at how they operate.

Indicator 6: The country's procurement operations and practices are efficient. The variable looks at the efficiency of the operations and operational practices as implemented by the procuring agencies. Four sub-indicators check whether:

a. the level of procurement competence among government officials within the entity is consistent with their procurement responsibilities;
b. the procurement training and information programs for government officials and for private sector participants are consistent with demand;
c. there are established norms for the safekeeping of records and documents related to transactions and contract management;
d. there are provisions for delegating authority to others who have the capacity to exercise responsibilities;

Indicator 7: *Functionality of the public procurement market*. The aim is to assess the market response to public procurement solicitations. This response may be influenced by many factors such as the general economic climate, the private sector development environment and policies, the existence of strong financial institutions, the attractiveness of the public system as a good reliable client, the kind of goods or services being demanded, etc. There are three sub-indicators checking whether (a) there are effective mechanisms for partnerships between the public and private sector; (b) private sector institutions are well organized and able to facilitate access to the market; (c) there are no major systemic

constraints inhibiting the private sector's capacity to access the procurement market.

Indicator 8: *Existence of contract administration and dispute resolution provisions.* The objective is to assess the quality of contract administration practices which begin after contract award and continue to acceptance and final payments. As discussed in *Chapter I,* by reviewing Consip S.p.A's analysis[50], this is an area that many procurement systems fail to consider. The indicator covers three sub-indicators, examining whether:

a. procedures are clearly defined for undertaking contract administration responsibilities that include inspection and acceptance procedures, quality control procedures, and methods to review and issue contract amendments in a timely manner;
b. contracts include dispute resolution procedures that provide for an efficient and fair process to resolve disputes arising during the performance of the contract;
c. procedures exist to enforce the outcome of the dispute resolution process.

Pillar IV. Integrity and Transparency of the Public Procurement System

Pillar IV covers four indicators that are considered necessary to provide for a system that operates with integrity, has appropriate controls that support the implementation of the system in accordance with the legal and regulatory framework and has appropriate measures in place to address the potential for corruption in the system. In the context of the present compendium, this pillar is the most relevant of the MAPS, as it seeks to ensure that all aspects of the PPS are defined and structured to contribute to integrity and transparency, and to protect from risks of fraud and corruption.

Indicator 9: *The country has effective control and audit systems.* The objective is to determine the quality, reliability and timeliness of the internal and external controls preferably based on risk assessment and mitigation. The indicator encompasses five sub-indicators to be confirming whether:

a. a legal framework, organization, policy, and procedures for internal and external control and audit of public procurement operations are in place to provide a functioning control framework;
b. enforcement and follow-up on findings and recommendations of the control framework provide an environment that fosters compliance;
c. the internal control system provides timely information on compliance to enable management action;
d. the internal control systems are sufficiently defined to allow performance audits to be conducted;
e. auditors are sufficiently informed about procurement requirements and control systems to conduct quality audits that contribute to compliance.

Indicator 10: *Efficiency of appeals mechanism.* The appeals mechanism is further assessed under this indicator for a range of specific issues regarding efficiency in

[50] For detailed review of the analysis, undertaken by Consip S.p.A, the Italian Public Procurement Agency, on the level of integrity of public procurement at the execution phase, based on evidence from the Italian National Frame Contracts, *see Chapter I, section II*

contributing to the compliance environment in the country and the integrity of the public procurement system. These issues are group in five sub-indicators assessing whether and to what degree:

a. decisions are deliberated on the basis of available information, and the final decision can be reviewed and ruled upon by a body (or authority) with enforcement capacity under the law;
b. the complaint review system has the capacity to handle complaints efficiently and a means to enforce the remedy imposed;
c. the system operates in a fair manner, with outcomes of decisions balanced and justified on the basis of available information;
d. decisions are published and made available to all interested parties and to the public
e. the system ensures that the complaint review body has full authority and independence for resolution of complaints.

Indicator 11: *Degree of access to information*. This indicator deals with the quality, relevance, ease of access and comprehensiveness of information on the public procurement system, by means of one sub-indicator, which checks whether the information is published and distributed through available media with support from information technology when feasible.

Indicator 12: *The country has ethics and anticorruption measures in place*. This indicator assesses the nature and scope of the anticorruption provisions in the procurement system. The importance of the variable is confirmed by its seven sub-indicators, reviewing whether:

a. the legal and regulatory framework for procurement, including tender and contract documents, includes provisions addressing corruption, fraud, conflict of interest, and unethical behaviour and sets out (either directly or by reference to other laws) the actions that can be taken with regard to such behaviour;
b. the legal system defines responsibilities, accountabilities, and penalties for individuals and firms found to have engaged in fraudulent or corrupt practices. This indicator assesses the existence of legal provisions, defining fraudulent and corrupt practices and setting out the responsibilities and sanctions for individuals or firms indulging in such practices.
c. Evidence of enforcement of rulings and penalties exists. The enforcement of the law and the ability to demonstrate this by actions taken is the highlighted aspect of this sub-variable.
d. Special measures exist to prevent and detect fraud and corruption in public procurement. This sub indicator looks to verify the existence of an anticorruption program and its extent and nature or other special measures which can help prevent and/or detect fraud and corruption specifically associated with public procurement.
e. Stakeholders (private sector, civil society, and ultimate beneficiaries of procurement/end-users) support the creation of a procurement market known for its integrity and ethical behaviours;
f. the country has in place a secure mechanism for reporting fraudulent, corrupt, or unethical behaviour;
g. existence of Codes of Conduct/Codes of Ethics for participants that are involved in aspects of the public financial management systems that also provide for disclosure for those in decision making positions.

B. Compliance/Performance Indicators (CPIs)

The compliance/performance indicators help identify those areas where compliance or performance is weak, and when a more in-depth review of deficiencies and their likely causes might be necessary. CPIs are intended to provide information based on extensive data analysis, interviews and surveys. The compliance/performance indicators are crossed to base-line indicators and strive to provide quantitative data, which would additionally aid (confirming or disregarding) the findings of the BLIs.

TABLE 5: EXAMPLES OF CPIS CORRELATION WITH BLIS

Compliance or Performance Indicator	Related Baseline Indicator/Sub indicator
1. Public procurement legislative and regulatory framework	
% of open tender documents that include provisions limiting participating for reasons other than qualifications or acceptable exclusions	1 d)
2. Implementing Regulations and Documentation	
% of tenders that use model tender documents or clauses.	2 b)
3. Integration of the public procurement system into the public sector governance	
(a) % of major contracts without completion reports. (b) Average time after contract completion for completion reports to be prepared.	3 f)
4. Normative and regulatory functions	
% of those surveyed that perceive the regulatory function to be free of conflict.	4 d)
5. Institutional development capacity	
(a) Number of staff involved in procurement in the central government that receives formal training in the year. (b) Average waiting time to get in a formal training event.	5 c)
6. Efficiency of procurement operations and practices	
% of contracts found with incomplete records being retained.	6 c)
7. Functionality of the public procurement market	
Average number of tenders submitted in each process	7 b)
8. Existence of contract administration and dispute resolution provisions	
% of contracts containing such provisions	8 a)
9. Effectiveness of control and audit systems	
Number of recommendations pending after one year.	9 b)
10. Efficiency of appeals mechanism	
(a) % of complaints processed within the time limits in the legal framework. (b) % of decisions taken that are enforced.	10 b)
11. Anticorruption Measures	
% of cases that result in sanctions or penalties.	12 c)
% of favorable opinions by the public on the effectiveness of the anticorruption measures.	12 d)

Source: Methodology for assessment of national procurement systems, version 4, July 2006.

CHAPTER III

MEASURING FRAUD AND CORRUPTION IN PUBLIC PROCUREMENT: SELECTED STATE OF THE ART EUROPEAN PRACTICES

Chapters I and II laid a comprehensive foundation for understanding the nature and implications of corruption and fraud in the public procurement system. The examined state of the art techniques, reflected through the lens of practitioners with different areas of expertise, identified sections/stages/elements of the public procurement process, particularly vulnerable to fraudulent and corrupt activities. The discussion of approaches to identifying risk areas, the review of cutting-edge indicators across the entire spectrum of the procurement process and the selected guidelines for establishing a sound public procurement system, resilient to fraud and corruption, constructed a strong set of tools for limiting the misuse of public funds. Theoretically, when integrated into a procurement system, found upon sufficient legal and institutional framework, the implementation of the reviewed techniques should contribute to limiting the fraudulent and corrupt practices and the respective amount of monetary public loss. Therefore, countries should be able to assess the effect of these instruments upon the procurement process by measuring the extent of fraud and corruption.

Chapter III turns to the European experience of measuring fraud and corruption in the public procurement sector by reviewing the approach of two state of the art innovative methodologies. As per request from the European Anti-Fraud Office (OLAF), on behalf of the European Commission (EC), PricewaterhouseCoopers (PwC), Ecorys and the University of Utrecht performed a study on *Identifying and Reducing Corruption in Public Procurement in the EU*. The completely innovative, mainly econometric, approach of the comprehensive methodology is based on four-stage model, where the pillars build on each other to ultimately provide an estimate of the direct costs of corruption in five economic sectors in a sample of eight Member States studied.

The other selected best practice is the *Annual Fraud Indicator (AFI)* methodology, developed by the UK National Fraud Authority (NFA), aiming to highlight potential fraud losses, with a view to encourage the establishment of greater resilience amongst business, charities, the public sector and by individuals. The Annual Fraud Indicator is unique instrument in its focus on raising awareness among the UK population of the problem of fraud, which is prevalent throughout the entire economic spectrum. AFI is neither a tool of crime statistics, nor a statistical or econometric model but rather a best estimate of the possible size of the problem.

This chapter draws extensively on the following sources:

- PwC, Ecorys, with support of Utrecht University. (2013). *Identifying and Reducing Corruption in Public Procurement in the EU*. Available at: http://ec.europa.eu/anti_fraud/documents/anti-fraud-policy/research-and-studies/identifying_reducing_corruption_in_public_procurement_en.pdf
- National Fraud Authority. (2012/ 2013). *Annual Fraud Indicator 2012* and *Annual Fraud Indicator 2013*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/118530/annual-fraud-indicator-2012.pdf_and__https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206552/nfa-annual-fraud-indicator-2013.pdf

I. A STUDY ON IDENTIFYING AND REDUCING THE COSTS OF CORRUPTION IN PUBLIC PROCUREMENT INVOLVING EU FUNDS[51]

The study *Identifying and Reducing Corruption in Public Procurement in the EU*, conducted by (PwC), Ecorys and the University of Utrecht, is the most recent and innovative research effort in the field of measuring the costs of corruption.[52] The overall objective of this study on identifying and reducing the costs of corruption in public procurement involving EU Funds is to provide information, methodologies and tools for the European Commission and Member States' authorities for the implementation of the EU anticorruption policies. Before this study, no empirically founded methodology was available to estimate the (changes in the) level of corruption in public procurement. The primary objective of this project was to present a methodology to estimate the costs of corruption in public procurement in sectors of the economy where EU Funds are spent. As a secondary objective, the study provided information and tools which may feed into the EU Anti-Corruption Report in order to improve the (application of) public procurement rules and practices, as well as promoted the implementation of the Commission's Anti-Fraud Strategy in the Member States.

1. Methodology

1.1. Definitions

Corruption in this study is defined as the abuse of power for private gain. In public procurement, abuse of power can lead to a secret vertical relationship between one or more bidders and the procurement official that materialises into a conflict of interest, bribery or kickback. Another dimension of abuse of power for private gain is a secret horizontal relationship between bidders, especially with the involvement of a corrupt inside official (collusion, bid rigging). Both corruption and collusion are taken into account in the methodology, since the two frequently occur in tandem and have ultimately the same effect of distorting the principles of fair competition and maximum value for public money. The **study's focus is only on the direct material costs of corruption**, more specifically the immediate monetary consequences for the national (including regional, local and, when EU Funds are involved, European)

[51] PwC, Ecorys, with support of Utrecht University. (2013). Available at: http://ec.europa.eu/anti_fraud/documents/anti-fraud-policy/research-and-studies/identifying_reducing_corruption_in_public_procurement_en.pdf

[52] The study was conducted between March 2012 and May 2013, as per request from the European Anti-Fraud Office (OLAF), on behalf of the European Commission (EC).

budget – the focus is **not on private gain**. The public loss investigated is the estimated monetary amount lost to corruption when a public procurement case turns out to be corrupt.

1.2. Indicators (identified red flags of corruption)

At the most fundamental level, all those involved in corruption seek to hide their behaviour. The comprehensive methodology builds on the specific assumption that some aspects of corruption can be detected, even though the full picture of corruption is unknown. The measurable appearances or representations of corrupt activities would be detected between the corrupt cases and "clean" cases.[53] These characteristics can be measured using indicators of corruption – the so called "red flags". In the context of the particular methodology, a red flag provides information on the chance of corruption being present (i.e. more red flags indicate a higher chance of corruption). The red flags have been structured along the lines of the public procurement process and defined in such a way that assessment of data on procurement cases against these indicators is possible.

Attention should also be paid to the notions of public loss, performance and costs. "Corrupt" and "clean" cases differ in terms of performance, due to ineffectiveness and/or inefficiency. It is therefore assumed that for the same product, service or work procured, the performance of a corrupt case will be lower than of a "clean" case.

The assumptions to public loss, performance and costs, on the one hand, and to the use of red flags, on the other, lead to the following approach: when an average difference in performance between corrupt and "clean" cases in a certain sector or product group can be estimated, and the overall probability of corruption in the same sector or product group can be distilled, based on the match of significant indicators with data on the procurement cases, then the two can be combined to an overall estimate of the costs of corruption in public procurement in this sector or product group.

[53] For the differences between the categories of clean, grey and corrupt cases, see section 1.3 below

TABLE 6: OVERVIEW OF RED FLAGS IDENTIFIED*

1	Strong inertia in composition of evaluation team	16	**Substantial changes in project scope/costs after award**
2	**Conflict of interest for members of evaluation team**	17	**Connections between bidders undermines competition**
3	Multiple contact points	18	**All bids higher than projected overall costs**
4	Contact office not subordinated to tender provider	19	Not all/no bidders informed of the award and its reasons
5	Contact person not employed by tender provider	20	**Award contract and selection documents public**
6	**Preferred supplier indications**	21	**Inconsistencies in reported turnover/number of staff**
7	Shortened time span for bidding process	22	Winning company not listed in Chamber of Commerce
8	**Accelerated tender**	23	**% of EU funding (= 0)**
9	**Tender exceptionally large**	24	% of public funding from MS
10	**Time-to-bid not conform the law**	25	**Awarding authority not filled in all fields in TED/CAN**
11	Bids after the deadline accepted	26	Audit certificates by auditor without credentials
12	**Number of offers**	27	**Negative media coverage**
13	**Artificial bids**	-	**Amount of missing information**
14	Complaints from non-winning bidders		
15	**Award contract has new bid specifications**		

Source: A study on Identifying and Reducing the Costs of Corruption in Public Procurement involving EU Funds, 2013.

**The values indicated in bold point to determined significant statistical correlations with a corrupt/grey status. Note that one extra indicator has been added: the amount of missing information. This is simply the number of red flag questions that could not be answered for each case. This red flag has been added on the basis of the above assumption, that more missing information may point to a higher chance that a case is corrupt.*

1.3. Data type

The data requirements for the development and application of the comprehensive methodology are substantial, and exceed in terms of volume and complexity any available specific data source on corruption. **Three** main **types of data** are required in terms of (a) a **sample of "corrupt/grey" and "clean"** procurement **cases**; (b) a representative sample of **procurement cases with unknown levels of corruption**; and (c) comprehensive (national and/or EU) **procurement database**(s).

a. A sample of corrupt/grey and clean cases. The first step in the development of a comprehensive methodology to estimate the costs of corruption in public procurement was to identify known "corrupt" and "clean" cases and assess these for the 27 red flags. Four categories of cases in public procurement are distinguished in the context of corruption:

Category 1: *Corrupt cases*: cases where in a final ruling a procurement case was defined as corrupt, and cases where a validated confession of one of the parties involved could be presented.

Category 2: *Cases with strong indications of being* "corrupt": cases where, based on many reliable and verified sources (but no verdict from the highest court nor confession) could be concluded that these are likely to be corrupt cases (e.g. certain settlements, verdicts from lower courts).

Category 3: *Cases with weaker indications of being corrupt* – for which no explicit evidence is presented from the opposite – are considered as being "grey" cases. These grey cases are taken into account, since cases of the two categories "corrupt cases" were not available in sufficient amounts.

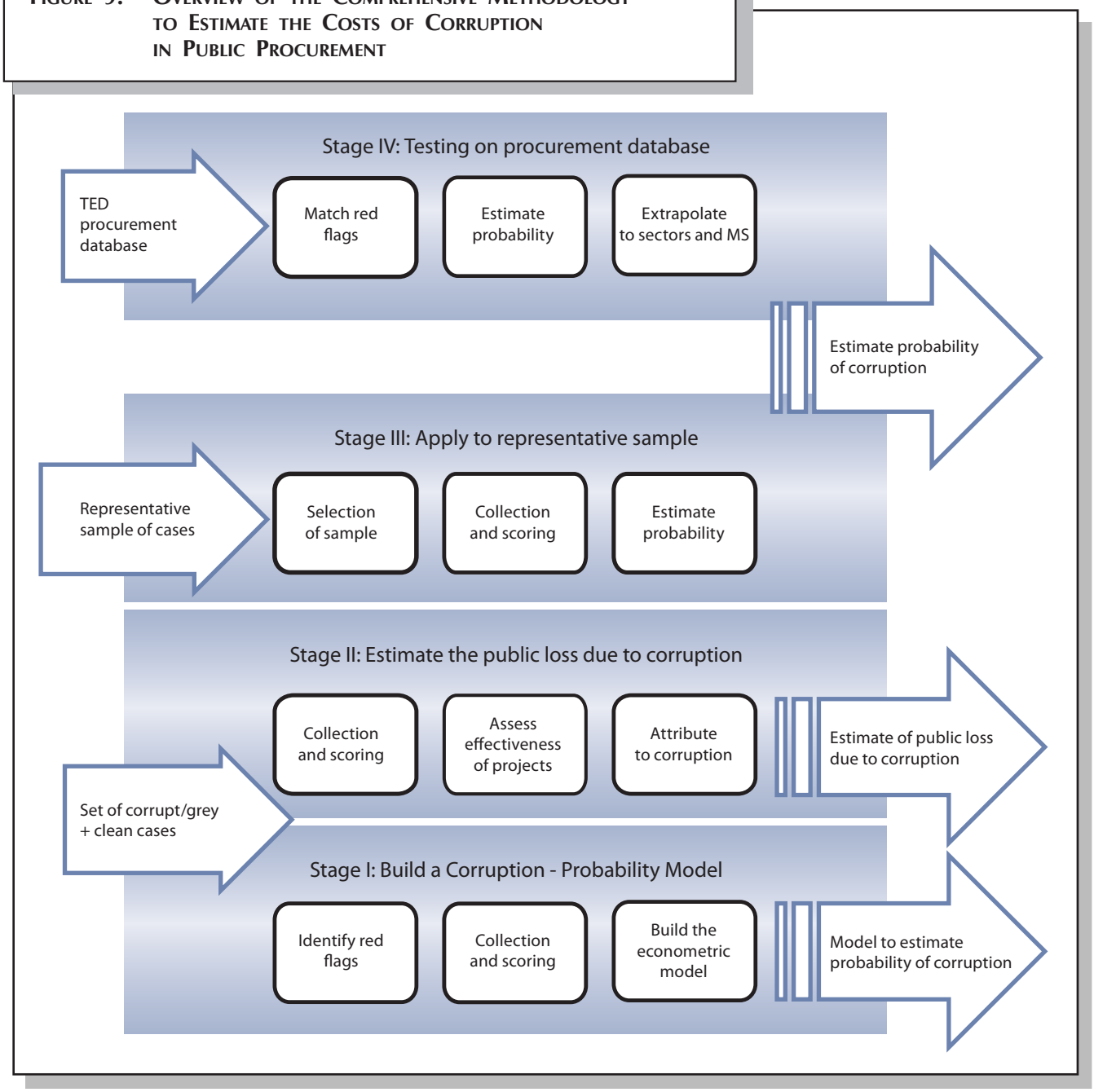
Category 4: *Cases with no (reliable) indications of being a "corrupt" case*. These cases are treated as "clean" cases.

Data have been collected for a set of 96 corrupt/grey and 96 clean cases in 8 EU Member States, in five sectors of the economy where EU Funds are spent (and thus not necessarily public procurement cases involving EU Funds). The eight selected Member States are France, Hungary, Italy, Lithuania, the Netherlands, Poland, Romania and Spain. The five specific sector**s** include Road/rail construction (Infrastructure construction); Water/waste (Civil construction); Urban/utility construction (Civil construction); Training (Social employment); and R&D/High tech/Medical products (Health).

b. A representative sample of procurement cases for which corruption is unknown. A representative sample of 183 cases procured within the period 2006-2010, for which corruption is not known was collected in the second phase.

c. EU and national procurement databases. An inventory and analysis was made of appropriate national procurement databases, however these proved to have only little or no value added compared to the EU TED procurement database – which records since 2006 all procurements in accordance with EU public procurement rules.

FIGURE 9: OVERVIEW OF THE COMPREHENSIVE METHODOLOGY TO ESTIMATE THE COSTS OF CORRUPTION IN PUBLIC PROCUREMENT



Source: A study on Identifying and Reducing the Costs of Corruption in Public Procurement involving EU Funds, 2013.

1.4. Stages

Stage I: Build a Corruption-Probability Model

The data and indicators, discussed above, are the foundation for the construction of an innovative corruption-probability model. The (27) red flags are identified and subsequently scored by applying them to the set of 96 corrupt or grey and 96 clean cases in 5 sectors and 8 Member States. The clean cases are used as a control group, allowing for a comparison with a set of corrupt/grey cases. The

collection and scoring of data allows for an assessment of the power of individual red flags. A Probit model[54] enables an assessment of the explanatory power of the red flags, not only individually but also in their relationship.

Stage II: Estimate the public loss due to corruption

For both categories of cases, an estimate is made of the performance of the cases in terms of (in-) effectiveness and (in-) efficiency loss – which are together considered the direct cost or direct public loss. This direct public loss takes into account cost overruns, delays and quality considerations. The difference between the direct public loss of corrupt/grey and clean cases is attributed to corruption.

Stage III: Apply to representative sample

The stage provides first estimate of the probability of corruption within public procurement. A different, representative sample has thereto been drawn from public procurements in 6 specific product groups (defined within the above 5 sectors) and within the 8 Member States studied. Data on these procurement cases has been collected, and scored on the same list of (27) red flags. The findings feed into the above-constructed *Probit* model and provide an estimate of the probability of corruption within the product groups selected.

Stage IV: Testing on procurement database

As the representative sample provides only information about a limited number of product groups, a further testing has taken place at the level of sectors through the TED procurement database. This testing is based on the operationalisation of a limited number of red flags only – namely those for which data are available in the TED procurement database.

The four stages, reviewed above allow for the extrapolation of direct costs of corruption within the sectors, product groups and Member States selected. This extrapolation takes into account the overall volumes of procured through EU tendering procedures, direct cost estimates from Stage II, and the probability estimates from both Stage III and IV.

2. Results of the application of the methodology

The state of the art methodology, based on the collected sample and within different bandwidths of inaccuracy, **estimated the probability of corruption**. The estimated probability in road (11-21 %) and rail (9-18 %) show a high level of accuracy due to the high number of cases studied. Furthermore, the two product groups selected appear to be typical for the broader sector. The estimated probability of corruption in waste water treatment plants is higher, with 26-41 %. The estimates for radiotherapy, mechanotherapy, electrotherapy and physical

[54] A Probit model is a type of regression where a variable (corrupt or clean case) is to be explained by a set of other variables. The name comes from probability and unit.

therapy devices suffer from a limited number of cases in the sample (10-32 %). The limited number of procurement cases for staff development services (training) was the reason that no meaningful probabilities could be determined.

Taken together, **the overall direct costs of corruption in public procurement** in 2010 for the five sectors studied in the 8 Member States **constituted between 2.9 % to 4.4 % of the overall value of procurements** in the sector published in the Official Journal[55]. The monetary value of this percentage range is **between EUR 1 470 million and EUR 2 247 million.**

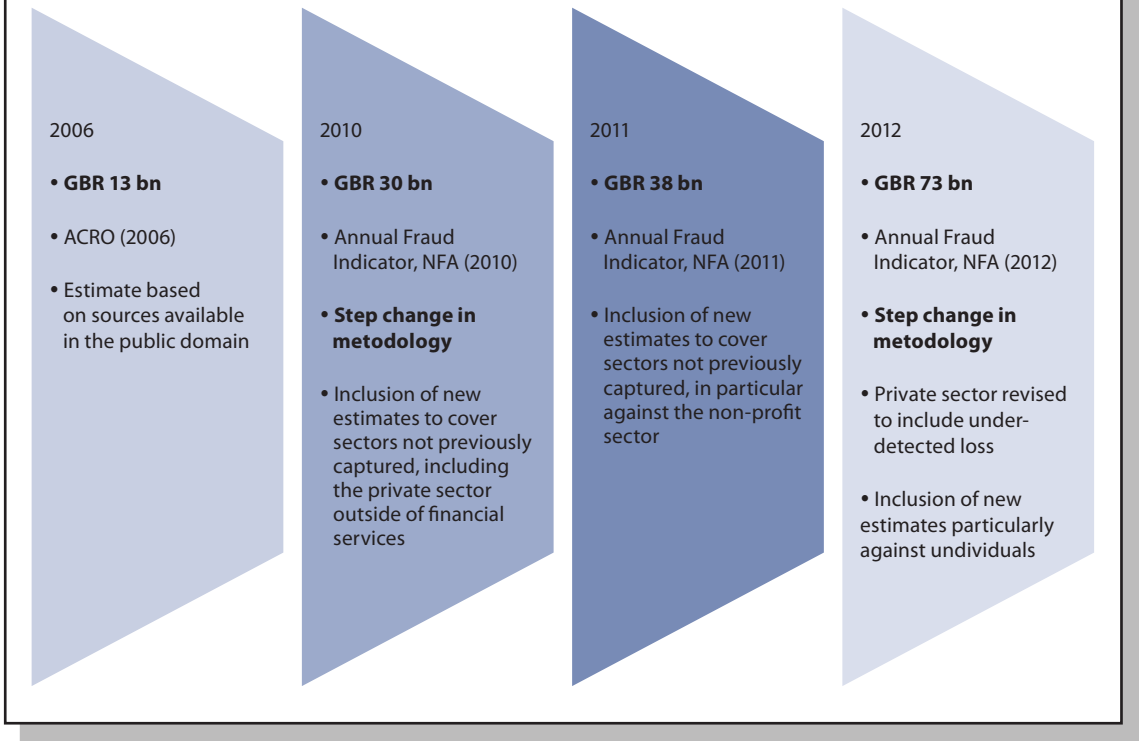
[55] It should be noted that the estimated value of tenders published in the TED in 2010, as percentage of the total value of public expenditure on works, goods and services in the 8 selected EU Member States, is 19.1 %, but it is not known what this percentage is for the individual sectors of the economy studied.

II. THE UK ANNUAL FRAUD INDICATOR (AFI)

Through the *Annual Fraud Indicator (AFI)* methodology, the UK National Fraud Authority (NFA) aims to highlight potential fraud losses, with a view to encourage the establishment of greater resilience amongst business, charities, the public sector and by individuals. The AFI is a compendium of fraud loss indicators drawn together to illustrate tentatively the possible scale, prevalence and cost of fraud. AFI covers fraud against all types of victims in the UK, including estimates of fraud loss in the sector of public procurement.

The Annual Fraud Indicator's approach is unique in a sense that it could be described as a "learning" methodology. It is heavily reliant on the data collected and held by the NFA's partners and AFI stakeholders. The NFA strives to reveal this hidden fraud by working with stakeholders across all sectors, collating and analysing secondary sources and conducting primary research in the form of

FIGURE 10: IMPROVING THE ESTIMATE OF FRAUD LOSS AGAINST THE UK



Source: AFI, 2012.

surveys. Therefore, as part of this "learning process", over recent years there have been a number of step changes in the research methodology applied to produce estimates in areas not previously quantified which have resulted in large revisions to the estimate of the scale of fraud loss to the UK. Each iteration of the total estimate of loss is therefore an improvement which replaces the previous figure, and thus cannot be used to trend or draw conclusions on the growth of fraud.

In addition, the composite estimate of the total cost of fraud to the UK is built upon the NFA assessment of fraud by victim group. Due to overlaps and gaps when considering fraud by enabler, or fraud by type the other figures cannot be summed to produce the same total. The estimates are calculated in different ways and they are therefore not necessarily comparable.

The Annual Fraud Indicator is also unique in its focus on **raising awareness** among the UK population of the problem of fraud, which is prevalent throughout the entire economic spectrum. AFI is neither a tool of crime statistics, nor a statistical or econometric model but rather a best estimate of the possible size of the problem. Its purpose is to raise awareness and reveal the bigger hidden picture of loss to victims.[56]

The Annual Fraud Indicator 2013[57]

According to the NFA, the 2013 AFI addresses some limitations to the approach of using surveys to estimate areas of unknown fraud loss, including potential bias of organisations self-selecting to participate; the level of response rates; issues of representativeness within the samples; and findings that are based on opinion rather than facts. The effort for mitigating these limitations is concentrated in several aspects:

- designing out potential errors and bias through stronger sampling strategies;
- increasing samples sizes where necessary to enhance confidence levels;
- increasing the cognitive understanding of the questions by respondents through better question specification and more robust analysis.

To help public understand better the relative confidence that the NFA has in the figures described, each estimate is assigned a *BRAG status* – black, red, amber or green.

[56] National Fraud Authority. (2012). *Annual Fraud Indicator 2012*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/118530/annual-fraud-indicator-2012.pdf

[57] National Fraud Authority. (2013). *Annual Fraud Indicator 2013*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206552/nfa-annual-fraud-indicator-2013.pdf

TABLE 7: COLOUR CODING OF THE LEVEL OF CONFIDENCE

BRAG	Level of confidence
black	Poor
red	Average
amber	Good
green	Excellent

Source: AFI, 2013.

Procurement fraud in the UK, according to the 2013 edition of AFI

The NFA's current estimate of procurement fraud replicates the methodology used in the AFI 2012 to estimate the extent of procurement fraud suffered by the public sector. Using an analysis of COINS data, undertaken by the HM Treasury, and a 1 per cent "at risk' figure used by the Ministry of Defence Police to estimate procurement fraud within their defence budget, has provided an estimated **procurement fraud loss of GBR 2.3 billion (GBR 1.4 billion for central government, GBR 876 million for local government).**[58]

TABLE 8: CONFIDENCE AND SCOPE OF THE ESTIMATE FOR PROCUREMENT FRAUD

Confidence in estimate	Scope of estimate
GOOD	Identified and hidden

Source: AFI, 2013.

[58] *Ibid.*

CHAPTER IV

IDENTIFYING CORRUPTION RISKS IN THE ENERGY SECTOR: EVIDENCE FROM BULGARIA

Chapter IV takes a brief detour from the in-depth review of the nature and methodological aspects of fraud and corruption in the public procurement process, to illustrate specific implications and impact of corrupt and fraudulent procurement practices in a country- and sector-specific context. This is achieved through a case study of the Bulgarian energy sector, which is of key strategic importance for the development of the country's economy. At the same time, public procurement is the most crucial instrument of energy policy, both at the national and international levels. Therefore, it is imperative that the energy contracts (in cases valued at EUR billions) are managed by a sound public procurement system, founded upon integrity and effective check and balance mechanisms, ensuring public benefit is prioritised during each stage of the procurement process. The absence of such strong PPS in Bulgaria significantly increases corruption risks in the award and performance of public procurement contracts in the energy sector.

The presented below case study is based on a comprehensive analysis[59], conducted by the Center for the Study of Democracy, a private, independent Bulgarian think tank pioneering in several sensitive areas, traditionally perceived as the inviolable public property, such as anticorruption, institutional reform, and national security.

This chapter draws extensively on the following sources:

Center for the Study of Democracy. (2011). *Anti-Corruption in Public Procurement: Balancing the Policies,* available at http://www.csd.bg/artShow.php?id=15622

[59] The analysis, on which the following case study is based, was prepared by the Center for the Study of Democracy as part of the publication "*Energy and Good Governance in Bulgaria Trends and Policy Options*", 2011. Available at: http://www.csd.bg/artShow.php?id=15499

1. Public procurement realities in the Bulgarian energy sector[60]

The energy sector is the lifeblood of any economy: oil, natural gas, and electric power are crucial to maintaining sustainable economic growth. The safe, affordable, and reliable energy supply to any point along the value added chain is indispensable for the economic and social welfare and development of any state. Bulgaria's energy sector is of key importance for the development of the country's economy and public procurement is the most crucial instrument of energy policy, both at the national and international levels. In Bulgaria, over the past ten years, energy exports and imports accounted for 13 and 21 %, respectively, of the value of the total outgoing and incoming trade flows.[61] One in four public procurement contracts relates to the energy sector, which renders it one of the biggest spenders of taxpayer money.

Public procurement plays a substantial role in a number of activities related to energy – from building new power stations worth billions of euros and purchasing materials and consumables to awarding consultancy and financial services.[62] Awarding public procurement is also a means of redistributing national income. A total of 15,431 public procurement contracts were awarded in 2009 for a total of BGN 10.3 billion[63] (EUR 5.3 billion). In comparison, in 2010 there was a substantial decrease in public procurement contracts: 14,017 contracts totalling BGN 3.6 billion (EUR 1.8 billion) were awarded in 2010.[64]

The Center for the Study of Democracy discussed various issues related to public procurement in the energy sector in 2006/2007.[65] The high concentration of public funds in this particular instrument generates a persistent risk of corruption, fraud and abuse of public financial resources. The major problems analysed then keep reoccurring and are even being exacerbated. Most big energy projects (e.g. Belene NPP, Tsankov Kamak HPP and the rehabilitation of facilities) can serve as examples of the misuse of public procurement mechanisms. **The major factors contributing to heightened corruption risks in the energy sector can be summarized as follows:**

- insufficiently detailed legal regulation regarding the status and functions of the specialised anticorruption unit at the Ministry of Economy, Energy and Tourism (MEET);

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60 Center for the Study of Democracy. (2011). *Anti-Corruption in Public Procurement: Balancing the Policies*. Available at http://www.csd.bg/artShow.php?id=15622

61 According to Bularian National Bank data on exports (FOB) and imports (CIF) by end use.

62 For a detailed review of public procurement in the field of energy in Europe in general, and Norway and Bulgaria in particular, see Andvig, J., Public Procurement: Corruption and Cartelization Issues, Center for the Study of Democracy and Norwegian Institute of International Affairs.

63 The overall number of contracts in the Public Procurement Agency database is actually higher. Only those listed under a particular type of public procurement (e.g. public works, supply and service) have been considered here. The public procurement contracts over the reporting period were awarded in four different currencies: BGN, EUR, USD and GBP. The BGN equivalent of contracts awarded in foreign currency was calculated using the fixed BGN/EUR rate and the average monthly and daily rate of the Bulgarian National Bank for the other currencies.

64 Data of the Public Procurement Agency as of the end of November 2010.

65 Corruption in Public Procurement: Risks and Reform Policies, Center for the Study of Democracy, 2007; Crime without Punishment: Countering Corruption and Organized Crime in Bulgaria, Center for the Study of Democracy, 2009.

- considerable economic interests at stake and substantial financial resources involved in the energy sector;
- privatisation of electric distribution companies;
- lack of genuine competition and strong monopolization of individual segments in the energy sector;
- large investment projects in terms of both number and value;
- high volume of energy exported via intermediaries;
- lack of transparency, public awareness and independent expert assessment; restricted access to information on national security grounds;
- the technical complexity of the energy sector;
- the pressing need to strengthen the inspectorates' capacity;
- the need to introduce anticorruption training of personnel;
- the need to elaborate policy for increasing remuneration as means of reducing corruption risk.

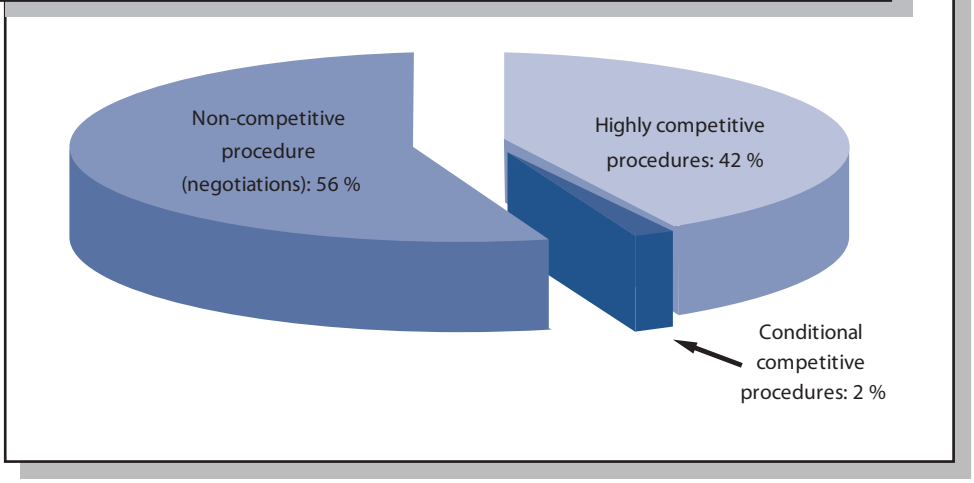
2. Types of public procurement procedures in the Bulgarian Energy Sector

Generally, there are three types of public procurement procedures. **Highly competitive procedures** characterise by the fact, that all interested parties may submit a tender. Open procedures under the Law on Public Procurement (LPP), open contests under the Regulation on Small-Scale Public Procurement (RSSPP), commodity exchange transactions and to some extent design contests fall under this category. **Partly-competitive procedures** are those, where a limited number of interested parties may submit a tender.

Non-competitive procedures include a limited number of interested parties submitting a tender, followed by negotiations. This category includes the negotiated procedure with and without publication of a contract notice under the LPP, the competitive dialogue, and the negotiated procedure following an invitation, as well as the selection among three submitted tenders, both under the RSSPP fall under this category. As discussed in Chapter I, non-competitive procedures are generally considered an instrument particularly exposed to fraud and corruption. At the same time, approximately 56 % of all procedures for the awarding of public procurement contracts in the energy sector are non-competitive, encompassing the various negotiated procedures with or without the publication of a contract notice under the LPP, and negotiated procedures following an invitation under the RSSPP. If the contracts awarded without a public procurement procedure are added to this number, it becomes apparent that avoiding market competition is the rule rather than the exception in the Bulgarian energy sector.[66]

[66] For instance, in the 2008 – 2009 period a single public tender under the RSSPP was announced.

Figure 11: Favoured Public Procurement Procedures in the Energy Sector



Source: Bulgarian Public Procurement Agency, 2010.

3. Major types of violations and proposed indicators of corruption risks

Major types of violations include:

- initiating an inexpedient (not in line with the public needs) public procurement procedure with a view to spending out available funds or to someone's personal benefit;
- selecting a non-qualified team and/or opting for negotiations where there is a possibility for choosing a more competitive procedure;
- deliberately manipulating procedures and related documentation, for example by making them excessively complex or riddled with ambiguities;
- deliberately manipulating eligibility criteria for candidates, for example by establishing inadequate qualifications and certification criteria and technical requirements;
- exerting administrative or political pressure, for example with a view to hiring a particular subcontractor or influencing the contracting authority's decision making;
- exerting pressure over a supplier, contractor or service provider of the public procurement by manipulating payment schedules;
- deliberately creating unequal treatment or prerequisites for inequality or unfair competition among the bidders;
- breaching of trust and undue disclosure of information.

Even where some public procurement procedures formally comply with the letter of the law, they carry alongside risks for substantial damages that are ultimately compensated through raising the fees for the provision of the respective services to consumers and end users. The analysis of 13 inspections[67] of energy enterprises

[67] Reports of the Public Financial Inspection Agency for the period 2006 – 2009 obtained pursuant to the *Law on Access to Public Information*.

carried out by the Public Financial Inspection Agency over a period of four years shows that **39 violations were found in 41 cases**. Several conclusions can therefore be made: (1) the number of inspections is relatively small compared to the large volume of public procurements in the sector; (2) the share of violations is quite high and is indicative of a systemic problem; (3) inspections should be carried out without delay to prevent statute of limitations expirations, and (4) a detailed review of the financial control system for state-owned energy companies is necessary.

The above analysis[68] clearly shows that introducing mechanisms of public monitoring of public procurements in the energy sector is very much needed. Such mechanisms would on the one hand enhance consumer confidence in the soundness of energy policy, and on the other would reduce losses in the sector incurred by means of inflated or unnecessary procurements. To this end, a **system of indicators of corruption risks in the award and performance of public procurement contracts** should be elaborated, and a permanent mechanism of public monitoring of the way public funds in the energy sector are spent should be introduced. The following could initially serve as such indicators in public procurement in the energy sector:

- unwarranted increases in company costs of energy producers and energy distribution companies over a certain period of time. Additional indicators for nuclear energy enterprises could be the higher exploitations costs compared to rates in similar NPPs operating in countries with open energy markets;
- Unwarranted decreases in company profits accompanied by increased profitability of outsourcing or partners who have contractual relationships with these companies;
- changes in management teams following parliamentary elections without publicly stated and clearly defined arguments;
- repetitive launching of public procurement procedures for the award of identical services/supplies/construction works;
- unwarranted termination of procedures for the award of public procurements;
- resorting to identical consultants operating in different capacities in the consultancy services market;
- persistent avoidance of commodity exchange transactions;
- interrelatedness of companies, where one company is the consultant in an investment project, another company is the buyer or the consultant in a privatization procedure, while a third company is the contract partner of the energy producer or distribution company.

[68] The analysis was prepared by the Center for the Study of Democracy and included in the publication "*Energy and Good Governance in Bulgaria Trends and Policy Options*", 2011. Available at: http://www.csd.bg/artShow.php?id=15499

CHAPTER V

COUNTERING FRAUD IN THE EU

After the comprehensive foundation for understanding the nature and implications of corruption and fraud in the public procurement system, laid by Chapters I and II, and the review of two European experiences of measuring fraud and corruption in the public procurement sector, the compendium concludes with a discussion of state of the art methodology for crime proofing of European legislation. The *Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime,* developed by Transcrime, a Joint Research Centre on Transnational Crime of the Università Cattolica del Sacro Cuore of Milan and the University of Trento, identifies and addresses unintended criminal implications or consequences, arising due to textual deficiencies in EU legislative texts.

This chapter draws extensively on the following sources:

- Ernesto Savona (2006). *The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime*. Available at: http://transcrime.cs.unitn.it/tc/fso/pubblicazioni/AP/MARC_Legislative_CRAM_Finale_report.pdf

I. THE CRIME RISK ASSESSMENT MECHANISM (CRAM) FOR PROOFING EU AND NATIONAL LEGISLATION AGAINST CRIME

Author: Ernesto U. Savona, Professor of Criminology at Università Cattolica del Sacro Cuore, (Milan) and Director of Transcrime, a Joint Research Centre on Transnational Crime (Università Cattolica, Milan/University of Trento)

"Crime proofing of legislation is a particular form of crime risk assessment and management that measures existing (crime proofing *ex post*) or future (crime proofing *ex ante*) opportunities for crime due to legislation and highlights related interventions aimed at proofing it against crime."[69] Despite the fact that the concept of crime proofing is not a new trend in the European Union,[70] there has been a lack of comprehensive and effective implementation in practice. A thorough research, undertaken by Transcrime, a Joint Research Centre on Transnational Crime of the Università Cattolica del Sacro Cuore of Milan and the University of Trento,[71] worked in this direction to produce a state of the art scientific approach for *Crime Risk Assessment Mechanism (CRAM)*. CRAM is a four-step process aiming to improve existing legislative texts[72] in terms of identifying whether criminal implications exist in a particular legislation; determining whether there is a crime risk; and proposing changes likely to aid the reduction of the magnitude and extent of the identified risk(s).

1. Initial screening

The four-stage process begins with initial screening (IS), performed by the public officials involved in the drafting of the particular legislation. As it is impossible to apply the CRAM methodology to each and every piece of legislation, the public authority decides which texts are to be selected – usually those likely to produce unintended criminal implications. When legislation is to be assessed, its provisions are reviewed against *7 risk indicators* to determine whether or not it will go into the second phase.

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69 Ernesto Savona, 2006, *The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime*, final report of project MARC – Developing Mechanisms for Assessing the Risk of Crime due to legislation and products in order to proof them against crime at an EU level – financed by DG Research of the European Commission under the Sixth Framework Programme. Available at: http://transcrime.cs.unitn.it/tc/fso/pubblicazioni/AP/MARC_Legislative_CRAM_Finale_report.pdf

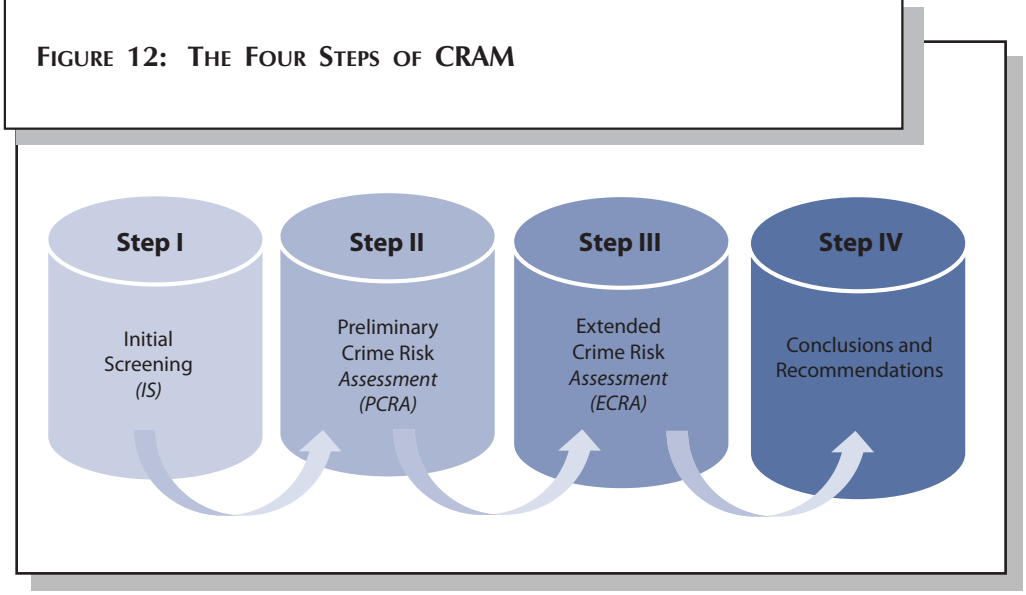
70 In 2001, the Council of the European Union established a European Crime Prevention Network, which first programme highlights crime proofing among the priority issues.

71 The Centre, directed by Ernesto U. Savona, Professor of Criminology at the Università Cattolica del Sacro Cuore in Milan, represents the multi-year union between experience and innovation in the field of criminological research.

72 In addition, Transcrime has developed a separate crime assessment mechanism to be applied where legislation is yet existing

1. Legislation that introduces product disposal regulation or any other new or more burdensome fee or obligation.
2. Legislation that introduces a concession on a tax or concession on any other fee or obligation.
3. Legislation that introduces a grant, subsidy, or compensation scheme or any other scheme that provides a benefit.
4. Legislation that introduces or increases the tax on legal goods or any other way increases the costs of legal goods.
5. Legislation that prohibits or restricts a demanded product or service or in any other way decreases the availability of demanded goods or services.
6. Legislation that introduces or removes a law enforcement capacity, increases or decreases funding for law enforcement activity or in any other way impacts the intensity of law enforcement activity.
7. Legislation that provides officials with regulatory power.

FIGURE 12: THE FOUR STEPS OF CRAM



Source: The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime, 2006

2. Preliminary crime risk assessment (PCRA)

If legislation falls within one of the above-listed indicators, it will be qualitatively assessed in the preliminary crime risk assessment. The PCRA has the objective of identifying the embedded unintended criminal implications or consequences. As in the IS, it is usually undertaken by the public officials, involved in the drafting of the legislation. The PCRA covers several activities, which purpose is to answer a specific set of questions.

a. Assessing the formal aspects of legislation.

Initially, the PCRA starts with a formal assessment of the act, both internally and externally. The objective is to identify textual deficiencies, which could allow for

illicit conduct, such as consistency of the legislation, its comprehensiveness and enforceability.

b. Estimating the vulnerability of the regulated sector/market at EU level.

After looking at the legislation itself, the methodology goes on to assess the vulnerability to crime of the respective market/sector. This is accomplished by looking at the market's structure, production factors, as well as its attractiveness and accessibility from the criminals' perspective.

c. Estimating the crime risks/types arising from legislation.

The third PCRA activity assesses crime risks, which were inadvertently produced by the legislation's provisions and decides the types of crimes these risks can be associated with. This stage is particularly important because only the crimes, identified in the PCRA will be examined in detail during the next phase of the CRAM methodology – the extended crime risk assessment.

Table 9: Set of Questions to be Answered at Each Stage of the PCRA

Area of activity	Questions to be answered
Assessing the formal aspects of legislation	Does the act make the whole legislative framework addressing the sector/market more chaotic?
	Does the act contain ambiguous or unclear language?
	Is the act easily applicable and enforceable in the Member States?
Estimating the vulnerability of the regulated sector/market at EU level	Do legitimate operators in the sector/market have interest in committing crime?
	Is the market/sector infiltrated by external criminals (organised or not)?
	Are the unlawful behaviours identified in the sector/market a law enforcement priority?
Estimating the crime risks/types arising from legislation	Does any provision procedure produce unintended opportunities for crime?
	Is so, for which crimes?
	Are the crime risks envisaged estimated at low, medium or high level risks?

Source: The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime, 2006.

3. Extended crime risk assessment (ECRA)

The extended crime risk assessment is an analytical and quantitative approach to examining the criminal implications identified by the PCRA. The assessment is done by group of experts analysing the components of each crime. The ECRA estimates the *threat* and *seriousness* caused by a certain crime on society, by producing the *Legislative Crime Risk Index* (LCR_C), which produces a numerical estimate on the level of crime risk arising from legislation. The LCR_C is composed of two indices – the *Legislative Crime Threat Index* (LCT_C) and the *Seriousness Index* (S_C):[73]

$$LCR_C = (LCT_C; S_C)$$

3.1 Legislative Crime Threat Index (LCT_C)

The LCT_C is the first component of the LCR_C and determines whether existing or forthcoming legislation is likely to produce crime opportunities. It is further down broken into two separate variables – the Textual Deficiency Index (TD) and Market Vulnerability Index (MV) – which are consequentially weighted[74] to elaborate the LCT_C.

The TD is assessed through the use of pre-determined indicators, related to specific aspects of the legislation, which do not vary according to the type of crime. The identified four main indicators (external consistency, internal consistency, clarity of content, and enforceability) are divided into sub-indicators in the form of questions. Each question is to be answered with either "yes", "no", or "not applicable", where "yes" increases the TD value, "no" decreases it, while "not applicable" renders the specific question of no relevance for the legislation to be assessed.

Similarly, the MV relies on set of main indicators and sub-indicators, which however, vary according to the type of crime.[75] These include attractiveness, profitability, rules of detection, and accessibility.

3.2 Seriousness Index (S_C)

S_C measures the harm (impact) caused by the crimes, likely to occur in the (to be) regulated sector/market. **The elaboration of the index requires certain simplifications to be made in order to deal with the complex national criminal systems** – only imprisonment is taken into account; only the maximum penalty/sanction is applied; only few crimes are analysed; among these various crimes, only the most general offences within a given crime category are used; and only a selected number of Member States are analysed.

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[73] The indices are always related to a single crime type, as some of the indicators are elaborated for the different crime types.

[74] It should be noted that the MV is valued higher than the TD, based on empirical evidence suggesting that high market vulnerability is much more likely to create criminal opportunities.

[75] The MARC project developed indicators for smuggling/illegal trafficking of goods; fraud against public authorities; money laundering; and corruption, but additional could be elaborated for other types of criminal activities.

Table 10: Example of Part* of TD Qualitative Grid and the Synthetic Index**

Qualitative Grid		
TD indicators	**Questions (sub-indicators)**	**Advice**
External Consistency	*Volume of law*. Does the regulation add new acts to the legislative framework?	Not Applicable
	Contradictions in the legislative framework. Does the regulation conflict with or contradict other laws regulating the same field?	NO
Enforceability	*Enforcement mechanisms*. Does the regulation lack enforcement mechanisms ensuring the fulfilment of obligations?	YES
	Applicability. Does the regulation lack mechanisms and structures to control/guarantee its implementation by MSs?	NO
The Synthetic Index		
TD Index		**0.3**
Number of Applicable Indicators		**8/9**

** The calculation of the TD index above is based on the full TD qualitative grid, listing all indicators and sub-indicators (9 in total). As this is only a part of the qualitative grid, the provided numerical value does not correspond to it.*

*** TD numerical value is defined as the relative frequency of the "YES" indicators, which mean counting the number of "YES"-s and dividing them by the number of the applicable indicators (i.e. the total number of indicators minus those which answer was "Not Applicable). The TD varies from "0" to "1", where "1" is the highest level of textual deficiencies.*

Source: The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime, 2006.

4. Conclusions and recommendations

The results of the ECRA – the elaborated Legislative Crime Risk Index for each identified crime, including the information contained in the qualitative grids – are discussed in the fourth and final step of the CRAM methodology. Set of recommendations for crime-proofing the legislation, are provided to decision-makers. The latter, also considering other external factors and possible trade-offs, are the ones ultimately face with the decision of whether or not the specific act will be altered.

II. CONCLUSION

Countering crime is a daunting task. This is especially true for the complex multi-layered process of public procurement. Given the fact that public procurement involves many stakeholders and that it is a multi-billion-euro worth market, it could be identified as the government activity most vulnerable to corruption and fraudulent activities. Both developed and developing countries are facing potentially fraudulent environment with regard to public procurement.

In this context, the present compendium of selected best practices addressed the threat of fraud and corruption from multiple perspectives, with the underlying purpose of providing practitioners from Romania and Greece with a set of state of the art approaches for addressing the threat of fraud and corruption in the complex multi-layered national public procurement systems. The only feasible way to achieve this is to gradually plunge into the complex environment of the public procurement system.

Therefore, the publication undertook a step-by-step approach, initially focusing on methods for increased integrity throughout the entire the public procurement cycle, while highlighting and strengthening the ability to understand the nature, types and structure of associated risks. The later examined state of the art techniques, reflected through the lens of practitioners with different areas of expertise, identified sections/stages/elements of the public procurement process, particularly vulnerable to fraudulent and corrupt activities. The discussion of approaches to identifying risk areas, the review of cutting-edge indicators across the entire spectrum of the procurement process and the selected guidelines for establishing a sound public procurement system, resilient to fraud and corruption, constructed a comprehensive set of tools, which practitioners could adopt with the purpose of limiting the misuse of public funds.

Theoretically, when integrated into a procurement system, found upon sufficient legal and institutional framework, the implementation of the reviewed techniques should contribute to limiting the fraudulent and corrupt practices and the respective amount of monetary public loss. Therefore, countries should be able to assess the effect of these instruments upon the procurement process by measuring the extent of fraud and corruption. Thus, having laid this comprehensive foundation for understanding the nature and implications of corruption and fraud in the public procurement system, the paper turned to the European experience of measuring fraud and corruption in the public procurement sector by reviewing the approach of two state of the art innovative methodologies. The selected methodologies have a significant added value, presenting on the one hand, a four-stage econometric model to provide an estimate of the direct costs of corruption in specific economic sectors across European Member States and, on the other, contributing to the general awareness rising among the UK population

of the problem of fraud, which is prevalent throughout the entire economic spectrum.

The reviewed methods for measuring corruption and fraud in the public procurement sector were able to show estimated numerical values of public loss. To better illustrate the specific implications and impact of corrupt and fraudulent procurement practices in a country- and sector-specific context, the compendium reviewed a selected case study of the Bulgarian energy sector. The discussed analysis clearly demonstrated the impact (both economic and social) and consequences of high corruption risks in the award and performance of public procurement contracts in the strategically-essential energy sector.

As a conclusion, the publication reviewed a state of the art methodology for crime-proofing of European legislations. The Crime Risk Assessment Mechanism is a unique, preventive four-step process aiming to improve existing legislative texts in terms of identifying whether criminal implications exist in a particular legislation; determining whether there is a crime risk; and proposing changes likely to aid the reduction of the magnitude and extent of the identified risk(s). The last section comes as the natural conclusion for countering the existing substantial threat of fraud and corruption in the public procurement process – a daunting task, which however can be effectively addressed in each element of the complex national procurement systems in Europe.

Disclaimer

The publication is based on ideas, presented during the international seminar "EU Financial Interests under Threat: New Approaches in Assessing the Risks from Public Procurement and EU Funds Fraud", held between 31 October and 1 November, 2013 in Sofia, Bulgaria as part of project "Training seminar: EU`s financial interests under threat: New approaches in assessing the risks from fraud and corruption". The compendium is prepared mainly for practitioners, working in national revenue agencies, anticorruption bodies, and magistrates from Romania and Greece. Representatives from these and similar institutions attended the international seminar, held in Sofia, Bulgaria.

Each chapter/section of the present compendium draws extensively on several main sources of information, listed below:

Chapter I – Enhancing Integrity and Understanding the Nature of Fraud and Corruption Risks in the Public Procurement Cycle: Implementation Instruments

- Organisation for Economic Co-operation and Development (OECD). (2009). OECD Principles for Integrity in Public Procurement. Available at: http://www.oecd.org/gov/ethics/48994520.pdf
- United Nations Office on Drugs and Crime (UNODC). (2013). Guidebook on anti-corruption in public procurement and the management of public finances. Good practices in ensuring compliance with article 9 of the United Nations Convention against Corruption. Available at: https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf
- Dr Gian Luigi, Head of R&D, Consip S.p.A; Dr Roberto Zampino, Economist at the R&D Unit, Consip S.p.A. (2012). Strengthening the Level of Integrity of Public Procurement at the Execution Phase: Evidence from the Italian National Frame Contracts. Forthcoming in G. Piga and S. Treumer (Eds.), Symposium of the Law and Economics of Public Contracts, 2012

Chapter II – Fraud and Corruption in Public Procurement: Indicators of Procurement Risk

- The Chartered Institute of Management Accountants (CIMA). (2008). Fraud risk management A guide to good practice. Available at: http://www.cimaglobal.com/documents/importeddocuments/cid_techguide_fraud_risk_management_feb09.pdf.pdf
- European Bank for Reconstruction and Development (EBRD). (2011). Public procurement assessment. Review of laws and practice in the EBRD region. Available at http://www.ebrd.com/downloads/legal/procurement/ppreport.pdf
- U.S. General Services Administration Office of Inspector General Office of Audits. (2012). Procurement Fraud Handbook. Available at:http://www.gsaig.gov/?LinkServID=6486B647-A5DF-C154-010A408470CAE0B8&showMeta=0
- United States Agency for International Development (USAID). (2006). The Corruption Assessment Handbook. Available at: http://www1.worldbank.org/publicsector/anticorrupt/USAIDCorAsmtHandbook.pdf
- Organisation for Economic Co-operation and Development (OECD. (2009). Methodology for assessing procurement systems (MAPS). Available at: http://www.oecd.org/dac/effectiveness/45454394.pdf

Chapter III – Measuring Fraud and Corruption in Public Procurement: Selected State of the Art European Practices

- PwC, Ecorys, with support of Utrecht University. (2013). Identifying and Reducing Corruption in Public Procurement in the EU. Available at: http://ec.europa.eu/anti_fraud/documents/anti-fraud-policy/research-and-studies/identifying_reducing_corruption_in_public_procurement_en.pdf
- National Fraud Authority. (2012/ 2013). Annual Fraud Indicator 2012 and Annual Fraud Indicator 2013. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/118530/annual-fraud-indicator-2012.pdf and https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206552/nfa-annual-fraud-indicator-2013.pdf

Chapter IV – Identifying Corruption Risks in the Energy Sector: Evidence from Bulgaria (Case Study)

- Center for the Study of Democracy. (2011). Anti-Corruption in Public Procurement: Balancing the Policies, available at http://www.csd.bg/artShow.php?id=15622

Chapter V – Countering Fraud in the EU: Conclusion

- Ernesto Savona (2006). The Crime Risk Assessment Mechanism (CRAM) for Proofing EU and National Legislation against Crime. Available ay: http://transcrime.cs.unitn.it/tc/fso/pubblicazioni/AP/MARC_Legislative_CRAM_Finale_report.pdf