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

By:

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Final Report of Project MARC – Developing **M**echanisms for **A**ssessing the **R**isk of **C**rime due to legislation and products in order to proof them against crime at an EU level

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Executive summary

This report presents the final results of the project MARC *Developing Mechanism for Assessing the Risk of Crime due to legislation and products in order to proof them against crime at EU level*, financed by the EU Commission under the Sixth European Union Framework Programme.

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.

The process has three aims:

A) to identify, if present, the unintended criminal implications/consequences of existing or forthcoming legislation;[1]

B) to determine whether there is crime risk, and if so, of what crime and of what magnitude. Calculation is made of *threat* or *probability*, which is defined as the likelihood that a crime will occur and its *impact*, defined as the harm caused by crime to society and individuals;

C) to suggest those textual changes to the legislation likely to reduce the risk (either by reducing opportunities for crime or by introducing security measures that may mitigate the risk).

It should be pointed out that:

- the MARC methodology can be applied when a legislative text is available, even if it is in draft form. A different crime risk assessment process has been developed by Transcrime for where a text is not yet available. This process is conceived as part of the general Impact Assessment carried out by the EU Commission on its proposals;

- the crime-proofing process focuses on the indirect effects of legislation, these being the unwanted consequences inadvertently produced by it;

- the crime-proofing process is not prescriptive. Its aim is to make decision-makers aware that future regulation, besides having the potential to produce negative social, economic and environmental consequences, may also produce opportunities for crime;

- the crime proofing process should be seen as dynamic .

The Crime Risk Assessment Mechanism (CRAM) is a methodology built to assess the criminal implications contained in a legislative/regulative text. The process is divided into four main steps:

Step 1 *Initial Screening*

This activity scans the piece of regulation/legislation according to established criteria. When the act matches one of these criteria the activity goes to the second step. If it does not, the exercise stops here.

Step 2 *Preliminary Crime Risk Assessment*

This is a descriptive/qualitative activity, which aims at identifying and describing which crime risks can be envisaged (if any) and for which types of crime. If the act is determined as a medium/high crime risk, it will go to the next phase. If it does not, the exercise stops here.

Step 3 *Extended Crime Risk Assessment*

This is an analytical/quantitative activity, which aims at quantifying the risk envisaged in step 2, by calculating a *Legislative Crime Risk index.* This is conceived as a function of two elements: the *threat*, i.e. the likelihood that a crime occurs because of legislation and its *seriousness*, i.e. the harm caused by a given crime on the society.

Step 4 *Conclusions and Recommendations*

Here the conclusions from Steps 2 and 3 are evaluated, resulting in recommendations on how the crime risk could be addressed and legislation proofed.

At the end of the four steps, it will be up to regulators to decide if and how legislation should be changed, having evaluated the trade-off between unintended criminal consequences and other positive and negative consequences of the legislation.

Here is a summing up of the four steps of the MARC methodology.

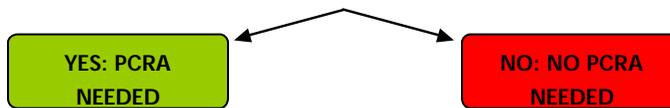[1] Respectively, crime proofing *ex post* and crime proofing *ex ante.*

STEP 1. *INITIAL SCREENING*

AIM	Selecting those acts needing to undergo a crime proofing process
EVALUATORS:	Policymakers involved in the law making process

CONTENT:

1. *INITIAL SCREENING*

Check if the act falls in any of the following *Risk Indicators*, elaborated by Jill Dando Institute and Transcrime: 1) Legislation that introduces product disposal regulations or any other new or more burdensome fee or obligation; 2) Legislation that introduces a concession on a tax or a 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 in 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 enforcement activity or in any other way impacts the intensity of law enforcement activity; 7) Legislation that provides officials with regulatory power.

YES: PCRA NEEDED   **NO: NO PCRA NEEDED**

STEP 2. *PRELIMINARY CRIME RISK ASSESSMENT*

AIM	Estimating the unintended criminal implications of those acts selected in the Initial Screening (descriptive assessment)
EVALUATORS:	Policymakers involved in the law making process

CONTENT:

1) ESTIMATING THE FORMAL ASPECTS OF THE ACT

- Does the act make more chaotic the whole legislative framework addressing the sector/market?
- Does the act contain ambiguous or unclear language?
- Is the act easily applicable and enforceable in the Member States?

2) ESTIMATING THE VULNERABILITY OF THE REGULATED SECTOR/MARKET, IN ORDER TO EXPLORE IF IT IS *PER SE* VULNERABLE TO CRIME
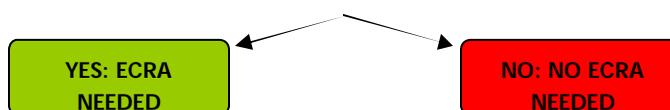
- Do legitimate operators of the sector/market have interest in committing crime?
- Is the market/sector infiltrated by external criminals (organized and not)?
- Are the unlawful behaviours identified in the sector/market a law enforcement priority?

3) ESTIMATING THE POSSIBLE CRIME RISKS ARISING FROM SPECIFIC PROVISIONS

- Does any provision produce unintended opportunities for crime?
- If so, for which crimes?
- Is it a low, medium or high crime risk?

4) DRAWING UP CONCLUSIONS FROM THE ASSESSMENT

If the act presents at least a *medium level* of crime risk, the process goes on; if not, it stops here.

YES: ECRA NEEDED   **NO: NO ECRA NEEDED**

STEP 3. *EXTENDED CRIME RISK ASSESSMENT*	
Aɪᴍ	Quantifying the crime risk produced by legislation through a *Legislative Crime Risk index*
Eᴠᴀʟᴜᴀᴛᴏʀs:	A group of experts, providing for different expertise

Cᴏɴᴛᴇɴᴛ:

> 1) Calculating a *textual deficiencies index* (TD), using a series of indicators.
>
> 2) Calculating the *Market vulnerability index*, related to a specific crime type (MV_C), using a series of indicators.
>
> 3.a) Fixing α and β values (weighting system)
>
> 3.b) Calculating the *Legislative Crime Threat index* related to a specific crime type, through the following formula :
>
> $$LCT_c = \mathbf{a} \cdot TD + \mathbf{b} \cdot MV_c$$
>
> 4) Building the final *Legislative Crime Risk index,* linking the *Legislative Crime Threat index* to the *seriousness value* related to a specific crime type:
>
> $$LCR_c = [LCT_c; S_c]$$

STEP 4. *CONCLUSIONS AND RECOMMENDATIONS*	
Aɪᴍ	Suggesting recommendations on how the crime risk could be addressed and legislation proofed
Eᴠᴀʟᴜᴀᴛᴏʀs:	A group of experts, providing for different expertise

Cᴏɴᴛᴇɴᴛ:

> This step aims at bringing together the results of the Extended CRA: the *Legislative Crime Risk index* for each crime considered and the information contained in the qualitative grids related to the single variables. Recommendations on how the crime risk should be addressed and, consequently, legislation crime-proofed will be made to policymakers, i.e. by suggesting those textual changes likely to reduce the risk (either by reducing opportunities for crime or by introducing security measures that may mitigate the risk).

The crime risk assessment mechanism, built to proof legislation against crime, could now be implemented at different levels. Even if tuned to European legislation, the mechanism could be easily applied to different types of legislation: it could take into account either soft or hard law at international, national, and local levels.

Introduction

This report presents the final results of the project MARC *Developing Mechanism for Assessing the Risk of Crime due to legislation and products in order to proof them against crime at EU level*, financed by the EU Commission under the Sixth European Union Framework Programme. It sets out, after many passages that have involved Consortium members, the final crime risk assessment mechanism/methodology for proofing EU legislation against economic and organised crime. The initial methodology was submitted to the members of the MARC Consortium Board on 16 June 2004, one month after the official start of the MARC contract. Since then, numerous changes and refinements have been made to the methodology,[2] until the final meeting was held in Paris on 27-28 October 2005. Starting from this meeting Università Cattolica and Transcrime have tested and further developed the mechanism. The final results are presented in this report, which is divided into the following sections::

1. Preliminary concepts
2. Why proof legislation against crime? Answers from the European Union and beyond
3. The *Crime Risk Assessment Mechanism (CRAM)*
4. Concluding remarks

1. Preliminary concepts

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.

The crime proofing process consists of two phases: a) assessment of the risk that a legislative measure may produce unintended criminal implications/consequences; b) action to close the loopholes in the legislation, thereby 'proofing' it against crime. The process has three aims:

A) to identify, if present, the unintended criminal implications/consequences of existing or forthcoming legislation;[3]

B) to determine whether there is crime risk, and if so, of what crime and of what magnitude. Calculation is made of *threat* or *probability*, which is defined as the

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[2] A publication of the work in progress of the project MARC is forthcoming in a thematic double issue of the "*European Journal of Criminal Policy and Research*", published by Springer.

[3] Respectively, crime proofing *ex post* and crime proofing *ex ante*.

likelihood that a crime will occur and its *impact*, defined as the harm caused by crime to society and individuals;

C) to suggest those textual changes to the legislation likely to reduce the risk (either by reducing opportunities for crime or by introducing security measures that may mitigate the risk).

It should be pointed out that:

- *the MARC methodology can be applied when a legislative text is available, even if it is in draft form*. A different crime risk assessment process has been developed by Transcrime for where a text is not yet available. This process is conceived as part of the general Impact Assessment carried out by the EU Commission on its proposals.[4]

- *the crime-proofing process focuses on the indirect effects of legislation, these being the unwanted consequences inadvertently produced by it*. The exercise does not concern criminal legislation or any other legislation dealing with crime, or its direct effects.

- *The crime-proofing process is not prescriptive*. Its aim is to make decision-makers aware that future regulation, besides having the potential to produce negative social, economic and environmental consequences, may also produce opportunities for crime. The results of a crime risk assessment may motivate regulators to change aspects of existing or forthcoming legislation likely to increase opportunities for crime.

- *The crime proofing process should be seen as dynamic*: it is refined over time and becomes more systematic as new vulnerability studies are undertaken and further data on a range of sectors become available.

2. Why proofing legislation against crime? Answers from the European Union and beyond

Money laundering, fraud, corruption, the infiltration of organised crime into legitimate economic activities and legal professions are some of the illicit activities undermining the security of EU citizens and decreasing the competitiveness and effectiveness of EU economic systems. For all these crimes, more than others, it may be assumed that criminals act rationally. It means that the more opportunities they find for committing their illegal acts, the more they will perform them. These opportunities may come from many sources and one could be legislation. A clear example of this is provided by the way in which company law is shaped. "Depending on the type of regulation, company

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[4]This methodology is part of the still ongoing project *"A Study On Crime Proofing -Evaluation of Crime Risk Implications of the European Commission's Proposals Covering a Range of Policy Areas"*. Contract no. DG JAI-D2/2004/05, awarded to Transcrime by Commission's DG JLS.

law produces greater transparency or greater opacity of a financial system, thereby influencing the other sectors of regulation". Therefore opacity produces opportunities for crime (fraud, tax evasion, criminal infiltration in the legitimate economy).

Several law reform projects, at international and national levels, may have an impact on these crimes. The screening of legislation for provisions that may open up or facilitate opportunities for crime might significantly assist in minimising potential crime risks.

Establishing a "crime proofing" mechanism in the decision making process and business planning will mean providing powerful instruments to prevent crime, reduce its total amount and achieve more security and opportunities for EU citizens. According to the European Commission: Crime prevention includes all activities which contribute to halting or reducing crime as a social phenomenon, both qualitatively and quantitatively, either through permanent and structured co-operation measures or through ad hoc initiatives. These activities are undertaken by all actors likely to play a preventive role: local representatives, enforcement services and judicial system, social services, education system, associations in the broad sense, industry, banks and the private sector, research workers and scientists, and the general public, supported by the media."[5]

There are at least three forms of crime prevention that can be adopted:

1) reducing the opportunities for crime, thereby making crime more difficult and riskier and reducing the profits for criminals *(situational crime prevention)*;

2) reducing the social and economic factors that encourage the development of crime *(social and economic prevention);*

3) providing information and protection for potential victims to prevent victimisation and assistance to victims (*victimisation prevention and victims protection*).

Crime proofing belongs to the first category, i.e. situational crime prevention.[6]

After the broad statements on the need to integrate crime prevention aspects into legislation made by the Tampere European Council Presidency Conclusions of 1999,[7] the urgency to find instruments for crime proofing legislation has been emphasized in several documents published by the European Union Commission. In particular, the European Commission asked for an instrument for testing legislative proposals in the Communication of 29 November 2000.[8]

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[5] Commission of the European Communities, Communication from the Commission to the European Parliament. *The Prevention of Crime in the European Union. Reflection on Common Guidelines and Proposals for Community Financial Support*, COM (2000) 786 final, Doc. 2000/0304 (CNS), Brussels, 29 November 2000.

[6] See, for instance, J. Graham, T.H. Bennett, *Crime Prevention Strategies in Europe and North America*, HEUNI Report Series, n. 28, HEUNI, Helsinki, 1995; T.H. Bennett, *Crime Prevention*, in M. Tonry, *The Handbook of Crime and Punishment*, Oxford University Press, New York, Oxford, 1998.

[7] Conclusion No. 41 of the Tampere European Council, 15-16 October 1999.

[8] Commission of the European Communities, Communication from the Commission to the European Parliament. *The Prevention of Crime in the European Union. Reflection on Common Guidelines and Proposals for Community Financial Support*, COM (2000) 786 final, Doc. 2000/0304 (CNS), Brussels, 29 November 2000.

The Joint Report from Commission services and EUROPOL of March 2001, which established the cornerstones of an European strategy to prevent organised crime, more specifically addressed the need of including preventative measures in the legislation making process: "The scanning of loopholes and crime facilitating opportunities has a particular virtue when applied to the legislation making process [...] risk assessments and diagnosis should be further developed within it".[9] Accordingly, on 28 May 2001 the Council of the European Union established a European Crime Prevention Network, whose first programme, drawn up in June 2001, puts crime proofing as one of the top priority subjects and encourages cooperation between the Commission and EUROPOL to find methods and use them in the legislation process.[10] Finally, the Commission entrusted OLAF with the establishment of a system of "fraud-proofing" in order to strengthen the preventative aspects of the protection of the financial interests of the Community.[11] OLAF has since been routinely consulted by the Commission and its expertise in economic and financial crime case studies has been highly appreciated. A specific mechanism for fraud proofing has also been proposed in this context.

Despite the proliferation of official documents and European programs directed towards the establishment of a common methodology for proofing legislation against crime, very little implementation has followed. The latest report on these subjects submitted in 2001 to the EU Commission depicts a general lack of institutionalised procedures for crime risk assessment.[12] Only Scandinavian countries (Sweden, in particular) have adopted some formal mechanisms (called "general directives") to oblige policymakers to consider crime risk assessment or to at least give reasons for not doing so, but criticism has arisen due to the generalization of the instruments.[13]

On the research side, no efforts have been made to develop protocols, indicators, or methodology to proof legislation against crime. As a report to the Commission and the most recent literature in the field put it "this area of prevention has been rather neglected as an area of research".[14] While the development of a mechanism for proofing against crime has not yet been attempted, some researchers, such as Seppo

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[9] Commission of the European Communities, Joint Report from Commission Services and EUROPOL. *Towards a European Strategy to Prevent Organised Crime*, SEC (2001) 433, Brussels, 13 March 2001, p. 28.

[10] European Crime Prevention Network, First Programme: *Setting Priorities and Objectives for the Period July 2001 – December 2002*, Stockholm, 25 June 2001, p. 4. See also Commission of the European Communities, Communication of the Commission to the Council and the European Parliament, COM (2001) 628, final, 30 October 2001, p. 37.

[11] Commission of the European Communities, *Communication concerning the Fraud Proofing of Legislation and Contract Management*, SEC (2001) 2029 final, Brussels, 7 November 2001.

[12] H.-J. Albrecht, M. Kilchling and E. Braun (eds.), *Criminal Preventive Risk Assessment in the Law-Making Procedure*, Freiburg i. Br., 2002.

[13] The most visible example of an instrument for risk assessment and crime prevention can be found in the Swedish legislative process. The "general directions to committees" consist in a revision of the pieces of legislation "when a proposal has significance for crime and crime prevention efforts" in order to analyse and describe how proposals could be expected directly or indirectly to impact on them. See H.-J. Albrecht, M. Kilchling and E. Braun (eds.*), op. cit.,* p. 266.

[14] H.-J. Albrecht, M. Kilchling, *Crime Risk Assessment, Legislation, and the Prevention of Serious Crime – Comparative Perspectives*, in European Journal of Crime, Criminal Law and Criminal Justice, Vol. 10/1, The Netherlands, 2002, p. 25.

Leppä of Heuni, have addressed this issue by looking at methodological tools developed in other fields. [15]

Therefore, despite the high demand from European Union institutions for crime proofing mechanisms that can be applied to the legislative process, there has been little implementation and almost no research in the field.

Project MARC was designed to address this gap through the development of a crime proofing methodology, to be used for assessing the unintended criminal implications of existing and forthcoming legislation.

The aim of the project was to build a crime risk assessment mechanism to proof EU legislation against (economic and organized) crime. This aim has been achieved building an initial methodology tested step by step through case studies where opportunities for economic/organised crime were pointed out. On the basis of the results of such activity, and after several refinements, a crime risk assessment mechanism has been developed. A pilot study has been run on a specific piece of legislation (EU public procurement legislation) and recommendations on how to improve the mechanism have been made. At the end a final *Crime Risk Assessment Mechanism* has been produced.

3. The Crime Risk Assessment Mechanism (CRAM)

The Crime Risk Assessment Mechanism (CRAM) is a methodology built to assess the criminal implications contained in a legislative/regulative text. Even if the CRAM is performed on forthcoming legislation (crime proofing *ex ante*) a draft text is needed.[16] Without a legislative text the methodology here presented cannot be applied, as it aims at measuring specific aspects of the normative act, by adopting a series of risk indicators.

The process is divided into four steps:

Step 1 *Initial Screening*

This activity scans the piece of regulation/legislation according to established criteria. When the act matches one of these criteria the activity goes to the second step. If it does not, the exercise stops here.

Step 2 *Preliminary Crime Risk Assessment*

This is a descriptive/qualitative activity, which aims at identifying and describing which crime risks can be envisaged (if any) and for which types of crime. If the act is

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[15] One of these studies considers the Environmental Impact Assessment (EIA), an instrument developed in environmental planning in order to assess the impact of various actions that may affect the environment. This study tries to apply a modified version of it (Crime Risk Assessment–CRA) to assess crime risks in the field of legislation. See S. Leppä, *Anticipating instead of Preventing: Using the Potential of Crime Risk Assessment in Order to Minimize the Risks of Organised and Other Types of Crime*, HEUNI Paper No. 11, Helsinki, 1999.

[16] To this purpose, see footnote 3.

determined as a medium/high crime risk, it will go to the next phase. If it does not, the exercise stops here.

Step 3 *Extended Crime Risk Assessment*

This is an analytical/quantitative activity, which aims at quantifying the risk envisaged in step 2, by calculating a *Legislative Crime Risk index.* This is conceived as a function of two elements: the *threat*, i.e. the likelihood that a crime occurs because of legislation and its *seriousness*, i.e. the harm caused by a given crime on the society.

Step 4 *Conclusions and Recommendations*

Here the conclusions from Steps 2 and 3 are evaluated, resulting in recommendations on how the crime risk could be addressed and legislation proofed.

3.1 INITIAL SCREENING

The Initial Screening is a selection process which chooses those acts (both forthcoming and existing) that should undergo a CRA process. It is a "creaming off" phase, due to the huge amount of regulations that might be assessed: only those likely to produce unintended criminal implications will go on to the CRA process.

Who carries out the Initial Screening?

This step is carried out by the officials involved in the law-making process, thus, at EU level, it would be undertaken by the Commission's Directorate Generals competent for that particular regulation.

What is the content of an Initial Screening?

The act will be categorised using the seven *Risk Indicators* developed by the Jill Dando Institute and Transcrime, listed below:[17]

1) Legislation that introduces product disposal regulations or any other new or more burdensome fee or obligation;

2) Legislation that introduces a concession on a tax or a 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 in 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;

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[17] See Jill Dando Institute of Crime Science, *Government Regulations and their Unintended Consequences for Crime: a project to Develop Risk Indicators*. Final Report to the EU Crime Proofing Steering Group. September 2003, UCL.

6) Legislation that introduces or removes a law enforcement capacity, increases or decreases funding for enforcement activity or in any other way impacts the intensity of law enforcement activity;

7) Legislation that provides officials with regulatory power.

What is the conclusion of an Initial Screening?

If the act falls into one of the above *Risk Indicators*, it will go to the next step of the process, i.e. the Preliminary CRA. If not, the crime proofing process stops here.
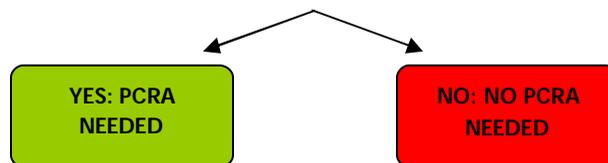
Summing up the *INITIAL SCREENING*

AIM	Selecting those acts needing to undergo a crime proofing process
EVALUATORS:	Policymakers involved in the law making process

CONTENT:

1. *INITIAL SCREENING*

Check if the act falls in any of the following *Risk Indicators*, elaborated by Jill Dando Institute and Transcrime:

1) Legislation that introduces product disposal regulations or any other new or more burdensome fee or obligation;

2) Legislation that introduces a concession on a tax or a 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 in 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 enforcement activity or in any other way impacts the intensity of law enforcement activity;

7) Legislation that provides officials with regulatory power.

YES: PCRA NEEDED	NO: NO PCRA NEEDED

3.2 PRELIMINARY CRIME RISK ASSESSMENT (PCRA)

The Preliminary Crime Risk Assessment (PCRA) is a descriptive/qualitative assessment of those normative acts selected in the Initial Screening. It aims at identifying the unintended criminal implications/consequences of (existing or forthcoming) legislation.

Who carries out the PCRA?

As for the Initial Screening, the PCRA is carried out by the officials involved in the law making process, thus at EU level it would be undertaken by the Commission's Directorate General competent for that particular regulation.

What is the content of a PCRA?

The assessment is carried out by undertaking the following activities:

a.   *Assessing the formal aspects of legislation.*

This section assesses the formal aspects of the act in question, from an external and internal point of view, in order to identify possible textual deficiencies likely to be exploited for illicit purposes. The internal and external consistency of the act, its comprehensiveness and its enforceability will be considered as criteria to estimate the formal quality of the legislation.

The assessment is carried out by answering to the following questions:

- *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?*

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

This section assesses the vulnerability of the sector/market affected by the selected act, i.e. it can be assumed that the more a sector/market is vulnerable to crime, the more likely it is that the legislation will produce unintended criminal implications.

Estimating the vulnerability of a sector/market entails considering its attractiveness and accessibility to criminals, taking into account production factors (raw material, labour, and capital), product and market structure (competitive, monopolistic or oligopolistic).

The assessment is carried out by answering to the following questions:

- *Do legitimate operators of the sector/market have interest in committing crime?*
- *Is the market/sector infiltrated by external criminals (organized and not)?*
- *Are the unlawful behaviours identified in the sector/market a law enforcement priority?*

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

This section assesses possible crime risks inadvertently produced by specific provisions of the selected act and, when so, identifies for which crimes these risks can be envisaged.[18] The Extended CRA, when recommended, will focus <u>only on the crimes here identified</u>.

The assessment is carried out by answering to the following questions:

- *Does any provision produce unintended opportunities for crime?*

- *If so, for which crimes?*

- *Are the crime risks envisaged estimated at low, medium or high level risks?*

After evaluating the above aspects, conclusions are drawn up in terms of crime risk. If the act is characterized by a medium or high level of crime risk, it will go to the next step (ECRA); if not, the crime proofing process stops here.

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[18] The concept of crime refers to two different interpretations: 1) from a legal point of view, the strict definition contained within national criminal codes and 2) from a criminological point of view, behaviour likely to produce unlawful effects (generally recognized, at least at EU level). To the purpose of this project, the second broader interpretation has been preferred, as the legal definitions for a given crime change depending on the law system considered. This also implies to assume as "crimes" some activities, such as tax evasion or antitrust abuses, which may be considered as administrative violations in certain countries.

Summing up the *PRELIMINARY CRIME RISK ASSESSMENT*

AIM	Estimating the unintended criminal implications of those acts selected in the Initial Screening (descriptive assessment)
EVALUATORS:	Policymakers involved in the law making process

CONTENT:

1) ESTIMATING THE FORMAL ASPECTS OF THE ACT

- *Does the act make more chaotic the whole legislative framework addressing the sector/market?*

- *Does the act contain ambiguous or unclear language?*

- *Is the act easily applicable and enforceable in the Member States?*

2) ESTIMATING THE VULNERABILITY OF THE REGULATED SECTOR/MARKET, IN ORDER TO EXPLORE IF IT IS *PER SE* VULNERABLE TO CRIME

- *Do legitimate operators of the sector/market have interest in committing crime?*

- *Is the market/sector infiltrated by external criminals (organized and not)?*

- *Are the unlawful behaviours identified in the sector/market a law enforcement priority?*

3) ESTIMATING THE POSSIBLE CRIME RISKS ARISING FROM SPECIFIC PROVISIONS

- *Does any provision produce unintended opportunities for crime?*

- *If so, for which crimes?*

- *Is it a low, medium or high crime risk?*

4) DRAWING UP CONCLUSIONS FROM THE ASSESSMENT

If the act presents at least a *medium level* of crime risk, the process goes on; if not, it stops here.

YES: ECRA NEEDED	NO: NO ECRA NEEDED

3.3 EXTENDED CRIME RISK ASSESSMENT (ECRA)

The Extended Crime Risk Assessment (ECRA) is an analytical/quantitative assessment of the unintended criminal implications envisaged in the Preliminary CRA. It aims at measuring the level of crime risk created by legislation through a *Legislative Crime Risk index.* It should be noted that the methodology for the ECRA has been translated into an electronic model (an excel sheet) which aids evaluators in carrying out the assessment, by performing all the calculations and displaying the outcomes automatically (see Annex II).

Who carries out the ECRA?

The ECRA is carried out by a group of experts who will analyse each crime risk's component. The group of experts will reflect the multidisciplinary approach adopted in the crime proofing process, as explained below.

What is the content of an ECRA?

The ECRA is carried out by evaluating the *threat*, which means the likelihood that a crime will occur because of legislation and the *seriousness*, meaning the harm caused by a certain crime on society. *Threat* and *seriousness* combine to produce the *Legislative Crime Risk index*, which expresses the level of crime risk (magnitude) arising from (existing or forthcoming) legislation.

It is conceived as a <u>numerical vector</u>, which is a variable resolved into two components: LCT_c and S_c (*threat* and *seriousness*), whose values are kept separate.

$$LCR_c = [LCT_c; S_c]$$

Where:

- LCR_c is the *Legislative Crime Risk* index related to a single crime type.
- LCT_c is the *Legislative Crime Threat* index related to a single crime type
- S_c is the crime *Seriousness* index related to a single crime type

This formula has the following characteristics:

- It reflects the general function RISK = f (THREAT, HARM), where LCT_c expresses the *threat*, while S_c is the *harm*.
- It is conceived as a *numerical vector* composed by two separate elements: LCT_c and S_c.
- It assumes that the final LCR index and its components are related to a given *crime type* (c).[19] This implies that a crime risk assessment will produce several LCR indexes, depending on how many crime types are affected by the considered

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[19] The concept of 'crime type" refers to broad notions of crime, which bypass the asymmetries among the strict legal definitions of the European countries. See the previous footnote.

normative act.[20] This choice identifies not only which criminal opportunities are inadvertently created by legislation, but also specifies different levels of risk for different crimes. The project MARC has developed crime risk indicators related to four crime types:

- smuggling/illegal trafficking of goods,
- fraud against public authorities,
- money laundering,
- corruption.

However, future applications could examine other crime types, not yet foreseen by the actual mechanism.[21]

The above crime types should be exclusive: particular offences cannot be included in more than one type at the same time. This is an important rule for having independent objects of analysis: if an offence was included in more than one type there would be overlaps, causing repetitive outcomes.

3.3.1 The first component of crime risk: the Legislative Crime Threat index (LCTc)

The *Legislative Crime Threat* index (LCT_c) is the first component of LCR_c. It expresses the probability of a certain crime occuring, because of the opportunities inadvertently created by legislation. It assesses whether existing or forthcoming legislation is likely to produce new opportunities for crime.

LCT_c is a function of two components, which refer to the formal quality of legislation and to the vulnerability of the sector/market as affected by the legislation. These components have been translated into the following variables:

- *The Textual Deficiencies index (TD)*
- *The Market Vulnerability index (MV)*

a. The *Textual Deficiencies index (TD)*

The development of a Textual Deficiencies index (TD) lies on the assumption that the formal aspects of legislation/regulation are relevant for producing crime opportunities: an incoherent, ambiguous, flawed legislation may by exploited for criminal purposes. In order to measure it, the concept of *textual deficiencies* has to be operationalized through a series of indicators called "TD indicators", which refer to specific aspects of the text.

It should be noted that TD, unlike the *Market Vulnerability* index, does not vary according to the different crime types identified, as textual deficiencies of legislation

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[20] The specific crimes affected by the normative act are those envisaged in the Preliminary CRA.

[21] E.g. counterfeiting, terrorism or environmental crimes. For these crime types specific indicators should be developed.

are not linked to a specific crime. Thus, for each legislation/regulation to be assessed there will be a unique TD value.

Furthermore, TD will be assessed only for binding acts, as they stipulate provisions. Other types of acts, i.e. policy documents such as Communications, do not present prescriptive content; thus, we assume that their textual deficiencies are of no relevance for possible crime risks. Consequently, at EU level TD assessment will only be made for Regulations, Directives and Decisions.

TD indicators

As explained above, TD indicators have been identified, relating to specific aspects of a legislative text, as follows:

1) EXTERNAL CONSISTENCY

It concerns the impact of the normative act on the **existing legislative framework**. A too large volume of laws addressing the same field makes the whole legislative framework complex and chaotic, producing risk of overlaps and of law's misuse.

2) INTERNAL CONSISTENCY

It concerns the **internal organization** of the normative act. The assumption is that a legislative act should have a logical and consistent structure, to avoid internal overlaps and to make the regulation clear.

3) CLARITY OF CONTENT

It concerns the **language** used in the text. The assumption is that generic terms, too broad concepts or ambiguous norms may lead to misinterpretation. This produces the risk of asymmetries in the application, exploitable for illicit purposes.

4) ENFORCEABILITY

It concerns the **capability of the normative act to be effective, by providing for enforcement and implementation mechanisms.** This means that a law should establish the consequences of possible non-compliant behaviours, as well as mechanisms to guarantee an effective implementation by Member States.

To carry out the TD assessment, each indicator has been divided into a sub-indicator and each sub-indicator has been translated into a question. Each question is linked to a set of possible answers: *YES / NO / NOT APPLICABLE (NA).*

The YES answer identifies the situation that concurs to increase the total TD index, i.e. the situation that presents crime risks in regard to textual deficiencies.

The NO answer identifies the situation that does not present any crime risk with reference to textual deficiencies.

The NOT APPLICABLE answer should occur when the single question is of no relevance for the legislation/regulation to be assessed, i.e. when the act does not address at all one (or more) of the TD indicators as it is not necessary to its purpose.

E.g. Indicator n. 1 (volume of law): the assumption is that the higher the number of law regulating a given sector, the more fragmented and chaotic the legislative framework will be. However, it may be necessary to enact a new legislation without replacing any previous act (thus increasing the number of law); for example, when the new law is more specific than the existing ones and addresses only a segment of the regulated market. In such cases the answer to the question should be *NOT APPLICABLE*. Answering *YES* would distort the final result.

The list of questions, with their main assumptions and the related answers/options, is presented below:

EXTERNAL CONSISTENCY

1) VOLUME OF LAW.

The assumption is that too many acts addressing the same field make the regulation fragmented and chaotic. This is likely to reduce the comprehensibility of the legislative framework and may consequently encourage misuse of the law.

Does the regulation add new acts to the legislative framework (instead of unifying or repealing already-existing acts)?   YES / NO / NA

2) CONTRADICTIONS IN THE LEGISLATIVE FRAMEWORK.

The assumption is that contradictions and conflicts among different acts addressing the same field may be exploited for illicit purposes, in that particular provisions can be circumvented without formal violations.

Does the regulation conflict with or contradict other laws regulating the same field? YES / NO / NA

INTERNAL CONSISTENCY

3) INTERNAL ORGANIZATION.

The assumption is that a consistent internal structure makes the regulation clear and prevents misunderstandings. For example, the preamble is a non-binding section, but it contributes to correct interpretation of the provisions. It should therefore be distinguished from the prescriptive section.

Does the regulation have an unclear and inconsistent structure (e.g. unclear partitions, chaotic organization, not organized from general to particular, overly long sections etc.)? YES / NO / NA

4) CONSISTENCY AMONG THE PROVISIONS.

The assumption is that contradictions and conflicts among a law's provisions may be exploited for illicit purposes, in that they can be circumvented without formal violations.

Do the provisions conflict with one another?   YES / NO / NA

5) CLARITY OF OBJECTIVES.

The assumption is that ambiguous objectives may increase non-compliant behaviour if they are open to different interpretations.

Are the objectives of the regulation unclear and ambiguous? YES / NO / NA

6) RISK OF MISINTERPRETATION.

The assumption is that generic language makes the requisite behaviour unclear. This may give rise to misinterpretation and consequently encourage illicit conduct.

Does the regulation contain generic terms/provisions which may be interpreted in different ways by different readers? YES / NO / NA

7) DEFINITIONS.

The assumption is similar to that of the previous indicator: technical terms and keywords should be provided with clear definitions in order to prevent different interpretations and asymmetries among the Member States. Asymmetries in implementing legislation increase opportunities for criminal behaviour.

Does the regulation lack definitions of technical concepts and keywords? YES / NO / NA

ENFORCEABILITY

8) ENFORCEMENT MECHANISMS.

The assumption is that a duty or an obligation should be linked to a specific enforcement mechanism so that its violations are prevented. If a law does not state the consequences of non-compliant behaviour and does not provide for legal redress, its provisions will not be efficacious.

Does the regulation lack enforcement mechanisms ensuring the fulfilment of obligations?

YES / NO / NA

9) APPLICABILITY.

The assumption is that a law should provide adequate mechanisms that ensure its effective implementation by avoiding excessively burdensome application by Member States, by setting feasible plans of action (in terms of time, costs, provisional dispositions), and by establishing proper control mechanisms. Otherwise, belated or incomplete application may be exploited for the purpose of illicit conduct.

Does the regulation lack mechanisms and structures with which to control/guarantee its implementation by Member States (e.g. authorities, provisional dispositions, adequate deadlines)? YES / NO / NA

TD indicators are assessed by a law expert. The expert carries out the assessment through an electronic questionnaire in the form of an Excel sheet (see below, Annex II). Answering all the questions allows the final TD index to be calculated. Therefore, the outcome of this exercise consists of:

- a **qualitative grid** presenting the relevant information on each TD indicator.

It provides the answers arising from the electronic questionnaire. Keeping the information separate means that the significant TD indicators can be more easily discerned, i.e. which of them are likely to produce unintended criminal implications.

– The **synthetic TD index.**

TD is a numerical variable obtained from the single TD indicators. It is defined as the relative frequency of the indicators whose answer is YES (i.e. those identifying a textual deficiency). This means counting the "YES" answers and dividing them by the number of applicable indicators (i.e. the total number of indicators _minus_ those whose answer is NOT APPLICABLE).[22]

TD index varies on a scale of possible values between 0 and 1, where 0 means no significant textual deficiencies in the legislative act and 1 means the highest level of textual deficiencies corresponding to a very low structural quality of the legislative act.

Additional information will focus on the **reliability of a TD index**. It should be pointed out that for calculating TD, only applicable indicators are used. For this reason the number of applicable indicators offers significant information on the reliability of a TD assessment. Indeed, it may occur that two laws have the same TD index, but calculated on a different number of indicators.

The assumption is: _the fewer TD indicators used to calculate the TD index, the less reliable the assessment._

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[22] The mathematical form to express TD index is the following:

$$TD = \frac{{}_{TP}f(YES)}{{}_{TP}N - {}_{TP}f(NA)} \quad where \ TD \in [0;1]$$

Where:

f(YES) = frequency of YES answers

N = total number of indicators

f(NA) = frequency of NOT APPLICABLE indicators

Example of *TD assessment*

TD INDICATORS	QUESTIONS	ADVICE
EXTERNAL CONSISTENCY	1) VOLUME OF LAW. *Does the regulation add new acts to the legislative framework (instead of unifying or repealing already-existing acts)?*	NOT APPLICABLE
	2) CONTRADICTIONS IN THE LEGISLATIVE FRAMEWORK. *Does the regulation conflict with or contradict other laws regulating the same field?*	NO
INTERNAL CONSISTENCY	3) INTERNAL ORGANIZATION. *Has the regulation an unclear and inconsistent structure (e.g. unclear partitions, chaotic organization, not from general to particular, too long sections etc.)?*	YES
	4) CONFLICTS AMONG THE PROVISIONS. *Do the provisions conflict with one another?*	NO
CLARITY OF CONTENT	5) CLARITY OF OBJECTIVES. *Are the objectives of the regulation unclear and ambiguous?*	NO
	6) RISK OF MISINTERPRETATION. *Does the regulation contain generic terms/provisions which may be interpreted in different ways by different readers?*	NO
	7) DEFINITIONS. *Does the regulation lack definitions of technical concepts and keywords?*	YES
ENFORCEABILITY	8) ENFORCEMENT MECHANISMS. *Does the regulation lack enforcement mechanisms ensuring the fulfilment of obligations?*	YES
	9) APPLICABILITY. *Does the regulation lack mechanisms and structures to control/guarantee its implementation by Member States (e.g. authorities, provisional dispositions, adequate deadlines)?*	NO

THE SYNTHETIC INDEX

TD INDEX	0,3
NUMBER OF APPLICABLE INDICATORS	8 / 9

b.   The *Market Vulnerability index (MV)*

Within the framework of legislative crime proofing, the existing/forthcoming legislation drives the vulnerability study as it selects the type of market that should be regulated (whose vulnerability should be analysed), the actors operating (whose behaviours should be regulated/re-regulated, de-regulated), and all the other features of the market addressed by the regulation. The vulnerability study should also take into account the indirect effects produced by regulation, such as side effects, that could be relevant to increasing or reducing opportunities for crime.

Market vulnerability expresses the risk that a legitimate market or its segments, in the process of being regulated/re-regulated/deregulated, could produce opportunities for crime due to the existing/forthcoming regulation.

A market is the place where demand and supply meet. The product is the result of the organisation of three factors: capital, raw material, labour. The price of the product depends on its structure: monopolistic/competitive.

Vulnerability in this perspective means the likelihood that factors, product and structure of a given market could be exploited to produce opportunities for crime and infiltration by criminals, because of legislation/regulation.

To assess this likelihood a *Market Vulnerability* index (MV) has been built. It measures the impact of an existing/forthcoming piece of legislation on the vulnerability of the market to crime. The assumption is that the content of a law may influence, positively or negatively, the level of vulnerability. As legislation can create different opportunities for different types of crime, <u>the general concept of market vulnerability will be split into several MV_c indexes</u>, each related to a certain crime type.

MV_c indicators

The concept of market vulnerability has to be operationalized through a series of indicators called "MV_c indicators", which measure the vulnerability of a given market as affected by (existing or forthcoming) legislation.

It can be assumed that the vulnerability of a given market depends on its *attractiveness* to crime and its *accessibility* to criminals. Accordingly, the following indicators have been developed:

A) ATTRACTIVENESS

The concept of attractiveness can be expressed as the profitability of a market for criminals *minus* the risk for criminals of being detected and, consequently, punished.

Attractiveness = profitability – risk of detection

A.1) *PROFITABILITY.* This concerns the gain or the benefit that a criminal could obtain by undertaking criminal activity in a certain market. The main assumption is that the more profitable a criminal activity is, the more vulnerable the market will be to crime.
A.2) *RISK OF DETECTION.* This concerns the risk to criminals of being detected and consequently punished. The main assumption is that the greater the likelihood that a criminal will be detected, the less willing he/she will be to commit the crime. Therefore a high risk of detection reduces a given market's vulnerability to crime.

B) Accessibility

This concerns the capacity of criminals to infiltrate a given market and takes account of the obstacles and barriers raised by legislation against illicit behaviour. The main assumption is that the more the obstacles raised against entry into the market, the less it will be vulnerable to criminals.

The above indicators have been divided into sub-indicators according to the selected crime types (smuggling/illegal trafficking of goods, fraud against public authorities, money laundering and corruption).

As for TD assessment, each MV_c sub-indicator has been translated into a question and each question has been linked to the following possible answers: *YES, NO, NOT APPLICABLE (NA)*.

The YES answer identifies the situation to be one that increases the total MV_c index, i.e. likely to be exploited for illicit purposes.

The NO answer identifies the situation as one that does not render the market more vulnerable to crime.

The NOT APPLICABLE answer should occur when the single question is of no relevance for the legislation/regulation being assessed, i.e. when the act addresses none of the MV_c indicators as it is not necessary to its purpose.

E.g. Indicator no. 1 (volume of law): the assumption is that the greater the number of laws regulating a given sector, the more fragmented and chaotic the legislative framework will be. However, it may be necessary to enact new legislation without replacing any previous act (thus increasing the number of laws); for example, when the new law is more specific than the existing ones and addresses only a segment of the regulated market. In such cases the reply to the question should be NOT APPLICABLE. Answering YES would distort the final result.

The list of questions, with their main assumptions and the related answers/options, is presented below:

SMUGGLING/ILLEGAL TRAFFICKING OF GOODS.

A.1 PROFITABILITY

1) DUTIES ON LEGAL GOODS.

The assumption is that new duties on legal goods increase the profitability of a parallel black market. On the supply side, when the market's legitimate operators are bound by law to bear greater costs (e.g. through a tax on importation), criminals may become more competitive on the market (e.g. because they can obtain the same factor by smuggling it into the country).

Does the regulation introduce duties on legal goods?   YES / NO / NA

2) PRODUCTION/DISTRIBUTION OF GOODS.

The assumption is that the more the production/distribution of goods is restricted (e.g. cigarettes, drugs), the greater the gains for possible smugglers.

Does the regulation restrict the production/distribution of a product or a service?

YES / NO / NA

3) ACCESS TO PRODUCTION FACTORS.

The assumption is similar to that of the previous indicator: the more difficult access to production factors becomes, the greater the gains for possible smugglers, who are able bypass lawful channels to obtain those factors.

Does the regulation impede access to production factors (raw materials, labour, capital)?

YES / NO / NA

A.2 RISK OF DETECTION

4) IDENTIFICATION OF NATURAL AND LEGAL PERSONS.

The assumption is that the less a market is transparent, the more difficult it becomes to identify smugglers. Furthermore, it is not sufficient to detect criminal activities when the natural persons involved are able to remain unknown. A law providing mechanisms and systems to identify legal and natural persons operating in the market increases the risk of detection for criminals.

Does the regulation lack mechanisms/systems with which to identify legal and natural persons operating in the market?   YES / NO / NA

5) DISCRETIONARY POWER OF GUARDIANS/OFFICIALS.

The main assumption is that if an unlimited and discretionary power is wrongly exercised, it may facilitate criminal behaviour because decisions can be taken without motivation, and therefore without the risk of being detected.

Does the regulation allow public authorities to take discretionary decisions or actions?

YES /NO/ NA

6) PROFESSIONALISM AND EXPERIENCE.

The assumption is that the greater the professionalism and experience of guardians/officials, the higher the risk to criminals of being detected. Professional requirements and experience ensure the proper functioning of a given market and thus raises the level of vigilance. This makes infiltration by criminals more difficult.

Does the regulation fail to stipulate the professional qualifications and experience required of guardians/officials? YES / NO / NA

B. ACCESSIBILITY:

7) REQUIREMENTS FOR MARKET ENTRY.

The assumption is that the more administrative requirements are stipulated for entry into the market, the less the latter is accessible to criminals. Accessibility to a market can be regulated by rules which establish specific requirements for the purpose of ensuring entry by reliable operators (i.e. administrative fulfilments or the duty to comply with certain standards). A piece of legislation that does not stipulate such requirements makes the market accessible to criminals.

Does the regulation fail to stipulate administrative requirements for entry into the market (quality certificates, permits, authorizations etc.)?   YES / NO / NA

8) BACKGROUND CHECKS.

The assumption is similar to that of the previous indicator: the presence of background checks prevents criminals from entering the market and ensures the reliability and honesty of operators.

Does the regulation lack provisions on background checks to be made prior to market entry?

YES / NO / NA

FRAUD AGAINST PUBLIC AUTHORITIES.

A.1 PROFITABILITY:

1) TAX CONCESSIONS.

The assumption is that tax relief may stimulate fraudulent behaviour because it encourages the use of deception to fulfil the criteria for the concession.

Does the regulation provide for tax allowances and/or exemptions? YES / NO / NA

2) REQUIREMENTS FOR MARKET ENTRY.

The assumption is that the administrative constraints on operation in the market (i.e. administrative fulfilments or the obligation to comply with certain standards) may stimulate fraud to circumvent the obligation, e.g. through the forgery of documents, false pretences, etc.

Does the regulation impose administrative requirements (quality certificates, permits, authorizations, etc.)?   YES / NO / NA

3) BENEFITS FOR THE OPERATORS.

The assumption is similar to that of the previous indicator: introducing benefits for operators may increase the risk of fraudulent behaviour to obtain them.

Does the regulation introduce grants, subsidies, compensation schemes?   YES / NO / NA

4) SPECIAL REGIMES.

The assumption is similar to that of the previous indicator: the introduction of special regimes for operators carries the risk that deception will be used to fulfil the criteria to obtain them.

Does the regulation envisage special regimes (waivers, exemptions, concessions on fees or obligations etc.) for particular categories and/or in particular cases?   YES / NO / NA

A.2 RISK OF DETECTION:

5) IDENTIFICATION OF NATURAL AND LEGAL PERSONS.

The assumption is that the less a market is transparent, the more difficult it is to identify possible criminals. Furthermore, it is not sufficient to detect criminal activities when the natural persons involved are able to remain unknown. A law providing mechanisms and systems to identify legal and natural persons operating in the market increases the risk to criminals of being detected.

Does the regulation lack mechanisms/systems for identification of legal and natural persons operating in the market? YES / NO / NA

6) DISCRETIONARY POWER OF GUARDIANS/OFFICIALS.

The main assumption is that if unlimited and discretionary power is abused, it may facilitate criminal behaviour because decisions can be taken without motivation, and therefore without the risk of being detected.

Does the regulation allow public authorities to take discretionary decisions or actions?

YES / NO / NA

7) PROFESSIONALISM AND EXPERIENCE.

The assumption is that the greater the professionalism and experience of guardians/officials, the higher the risk to criminals of being detected. Professional requirements and experience ensure the proper functioning of a given market and thereby raises the level of vigilance. This makes infiltration by criminals more difficult.

Does the regulation lack stipulation of the professional qualifications and experience required of guardians/officials? YES / NO / NA

8) CONFLICT OF INTERESTS.

The assumption is that the likelihood of conflict of interests increases the risk of fraudulent behaviour, because the public interest may be compromised if private purposes are in conflict with it. Imposing rules to prevent conflict of interest is crucial to prevent abuses and the distortion of duties in pursuit of personal interests.

Does the regulation favour possible conflicts of interest (e.g. it does not state which circumstances and relationships are to be considered unacceptable conflict-of-interest situations; the rules for managing conflicts of interest are unclear or lacking etc.)?

YES / NO / NA

B. ACCESSIBILITY:

9) ECONOMIC THRESHOLD.

The assumption is that a high economic threshold may prevent weaker criminals from entering a market and may strengthen operator reliability. Obviously, the evaluation must be made in light of the market's characteristics and structure, and above all of the kind of criminals potentially involved (a powerful criminal organization may be able to overcome this barrier if it can deploy appropriate resources).

Does the regulation fail to establish an economic threshold for entry into the market?

YES / NO / NA

10) BACKGROUND CHECKS.

The assumption is similar to that of the previous indicator: the presence of background checks prevents criminals from entering the market and ensures the reliability and honesty of operators.

Does the regulation lack provisions on background checks to be made prior to market entry?

YES / NO / NA

MONEY LAUNDERING.

A PROFITABILITY/ RISK OF DETECTION:[23]

1) IDENTIFICATION OF NATURAL AND LEGAL PERSONS.

The assumption is that the less a market is transparent, the more difficult it is to identify possible criminals. Furthermore, it is not sufficient to detect criminal activities when the natural persons involved are able to remain unknown. A law providing mechanisms and systems to identify legal and natural persons operating in the market increases the risk to criminals of being detected.

Does the regulation lack mechanisms/systems for identification of legal and natural persons operating in the market? YES / NO / NA

2) TIME TAKEN TO PERFORM A TRANSACTION.

The assumption is that rapid transactions are difficult to trace and consequently enable the concealment of criminal activity. Opacity in the market reduces the risk to money launderers of being detected.

Does the regulation allow rapid transactions to be performed?   YES/ NO / NA

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[23] In this case profitability tallies with risk of detection, because it lies in sector/market's opacity, thus in a low risk to criminals of being detected.

3) TRACEABILITY OF TRANSACTIONS.

The assumption is that the more a market/sector is transparent, thus mechanisms are in place for following the transactions, the less it will be vulnerable to money laundering because this requires opaque channels to be feasible.

Does the regulation lack provisions on systems/mechanisms with which to trace transactions in the market?   YES / NO / NA

4) DISCRETIONARY POWER OF GUARDIANS/OFFICIALS.

The main assumption is that if unlimited and discretionary power is abused, it may facilitate criminal behaviour because decisions can be taken without motivation, and therefore without the risk of being detected.

Does the regulation allow public authorities to take discretionary decisions or actions?

YES / NO / NA

5) PROFESSIONALISM AND EXPERIENCE.

The assumption is that the greater the professionalism and experience of guardians/officials, the higher the risk to criminals of being detected. Professional requirements and experience ensure the proper functioning of a given market, thus raising the level of vigilance. This makes infiltration by criminals more difficult.

Does the regulation lack stipulation of the professional qualifications and experience required of guardians/officials? YES / NO / NA

B. ACCESSIBILITY:

6) REQUIREMENTS FOR MARKET ENTRY.

The assumption is that the more administrative requirements are stipulated for entry to the market, the less the latter is accessible to criminals. Accessibility to a market can be regulated by rules which establish specific requirements for the purpose of ensuring entry by reliable operators (i.e. administrative fulfilments or the duty to comply with certain standards). A piece of legislation that does not stipulate such requirements makes the market accessible to criminals.

Does the regulation fail to stipulate administrative requirements for market entry (quality certificates, permits, authorizations, etc.)?   YES / NO / NA

7) BACKGROUND CHECKS.

The assumption is similar to that of the previous indicator: the purpose of background checks is to prevent criminals from entering the market and to ensure the reliability and honesty of operators.

Does the regulation lack provisions on background checks to be made prior to market entry?

YES / NO / NA

CORRUPTION.

A.1 PROFITABILITY:

1) REGULATORY POWER.

The assumption is that the amount of regulatory power affects the amount of corruption in the same sector. Therefore, new regulatory systems may produce new opportunities for the bribing of officials/authorities.

Does the regulation invest authorities with the power to enact regulations, to implement measures, and/or to take decisions?   YES / NO / NA

B.2 RISK OF DETECTION:

2) IDENTIFICATION OF NATURAL AND LEGAL PERSONS.

The assumption is that the less a market is transparent, the more difficult it is to identify possible criminals. Furthermore, it is not sufficient to detect criminal activities when the natural persons involved are able to remain unknown. A law providing mechanisms and systems to identify legal and natural persons operating in the market increases the risk to criminals of being detected.

Does the regulation lack mechanisms/systems for identification of legal and natural persons operating in the market? YES / NO / NA

3) TRACEABILITY OF TRANSACTIONS.

The assumption is that the more a market/sector is transparent, thus mechanisms are in place for following the transactions, the more easily bribes can be identified.

Does the regulation lack provisions on systems/mechanisms with which to trace transactions in the market?   YES / NO / NA

4) DISCRETIONARY POWER OF GUARDIANS/OFFICIALS.

The main assumption is that if unlimited and discretionary power is abused, it may facilitate corruption because decisions can be taken without motivation, and therefore without the risk of being detected.[24]

Does the regulation allow public authorities to take discretionary decisions or actions?

YES / NO / NA

5) PROFESSIONALISM AND EXPERIENCE.

The assumption is that the greater the professionalism and experience of guardians/officials, the higher the risk to criminals of being detected. Professional requirements and experience ensure the proper functioning of a given market, thereby raising the level of vigilance. This makes corruption easier to detect.

Does the regulation lack stipulation of the professional qualifications and experience required of guardians/officials? YES / NO / NA

B. ACCESSIBILITY:

6) BACKGROUND CHECKS.

The assumption is that the presence of background checks prevents criminals from entering the market and ensures the reliability and honesty of operators.

Does the regulation lack provisions on background checks to be made prior to market entry?

YES / NO / NA

7) TURNOVER OF OFFICIALS/GUARDIANS

Turnover guarantees the independence of officials/guardians from the point of view of their corruptibility, the risk of which may increase when office tenure is too lengthy. It therefore renders the

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[24] To be noted is the difference between the sub-indicator "regulatory power" (no. 1) and the sub-indicator "discretionary power" (no. 4). The former concerns the profitability of corruptive behaviour: more regulatory power means more opportunities for corruption. The latter concerns the risk to the perpetrators of being detected: more discretionary power means fewer controls and less risk of detection.

market/sector less accessible to corruptive practices. To be noted is that fixing a term of office is not enough to abate the risk of bribery if turnover is not required by law.

Does the proposal fail to ensure the turnover of guardians/officials (e.g. it does not set limits on an office's renewability)?   YES / NO / NA

8) CONFLICT OF INTEREST.

The assumption is that the likelihood of conflict of interests increases the risk of corruption because it encourages officials to act in their own interest rather that attending to their official duties. Imposing rules to prevent conflicts of interest is crucial to prevent abuses and the distortion of duties in pursuit of personal interests.

Does the regulation favour possible conflicts of interest (e.g. it does not state which circumstances and relationships are to be considered unacceptable conflict-of-interest situations; the rules for managing conflict of interest are unclear or lacking etc.)?

YES / NO / NA

Assessing the vulnerability of an area/market to crime requires different forms of expertise. MV_c should therefore be evaluated by a panel of experts with a composition that reflects a multidisciplinary approach. Each indicator, and consequently the final MV_c assessment, will be assessed by a single judgment reached on consensus among the experts.

The panel of experts may change according to the market's nature and features. A standard panel may consist of the following:

1   a criminologist,
2   an economist,
3   **a legal expert on the specific sector/market.**

The MV_c assessment will result in two outcomes:

– a **qualitative grid** presenting the relevant information on each MV_c indicator.

It provides the distinct answers arising from the electronic questionnaire. Keeping the information separate means that the significant MV_c indicators can be more easily discerned, i.e. which of them are likely to produce unintended criminal implications.

– The **synthetic MV_c index,** together with additional information on its reliability.

The synthetic MV_c index is calculated using the final figure of each indicator. It is the relative frequency of the applicable indicators whose answer is YES. This means counting the "YES" answers and dividing them by the number of <u>applicable indicators</u> (i.e. the total number of indicators *minus* those whose answer is NOT APPLICABLE).[25]

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[25] The mathematical form to express MV_c index is the following:

$$MV = \frac{_{MV_C}f(YES)}{_{MV_C}N - _{MV_C}f(NA)} \ where \ MV_C \in [0;1]$$

Where:
f(YES) = frequency of YES answers
N = total number of indicators
f(NA) = frequency of NOT APPLICABLE indicators.

MV_c **varies on a scale of possible values between 0 and 1,** where 0 means an absent or very low level of market vulnerability due to legislation and 1 means the highest level of market vulnerability.

As for TD, additional information will focus on the **reliability of a MV_c index**, which depends on the number of applicable indicators. It should be noted that for calculating MV_c only applicable indicators are used, thus they offer significant information on the reliability of a MV_c assessment. Indeed, it may occur that two laws have the same MV_c index, but calculated on a different number of indicators.

The assumption is: *the fewer MV_c indicators used to calculate the MV_c index, the less reliable the assessment.*

Example of *MV assessment for smuggling/illegal trafficking of goods*

MV_c INDICATORS	QUESTIONS	ADVICE
ATTRACTIVENESS– PROFITABILITY	1) DUTIES ON LEGAL GOODS. *Does the regulation introduce duties on legal goods?*	YES
	2) PRODUCTION/DISTRIBUTION OF GOODS. *Does the regulation restrict the production/distribution of a product or a service?*	YES
	3) ACCESS TO PRODUCTION FACTORS. *Does the regulation impede access to production factors (raw materials, labour, capital)?*	NO
ATTRACTIVENESS–RISK TO BE DETECTED	4) IDENTIFICATION OF NATURAL AND LEGAL PERSONS. *Does the regulation lack mechanisms/systems for the identification of legal and natural persons operating in the market?*	NA
	5) DISCRETIONARY POWER OF GUARDIANS/OFFICIALS. *Does the regulation allow public authorities to take discretionary decisions or actions?*	YES
	6) PROFESSIONALISM AND EXPERIENCE. *Does the regulation lack provisions on the professional qualifications and experience required of guardians/officials?*	NA
ACCESSIBILITY	7) REQUIREMENTS FOR OPERATING IN THE MARKET. *Does the regulation fail to stipulate administrative requirements for market entry (quality certificates, permits, authorizations, etc.)?*	YES
	8) BACKGROUND CHECKS. *Does the regulation lack provisions on background checks to be made prior to market entry?*	NO

THE SYNTHETIC INDEX

MV_c INDEX	0,5
NUMBER OF APPLICABLE INDICATORS	6/8

Measuring threat: how to calculate LCT$_c$ from TD and MV$_C$?

After assessing textual deficiencies and market vulnerability, the *Legislative Crime Threat index* (the likelihood that a crime occurs because of legislation) has to be calculated, as a function of TD and MV$_c$. <u>The sum</u> is the simplest and most intuitive function as it expresses a linear relation between the independent variables (TD and MV$_c$) and the dependent one (LCT$_c$):[26]

LCT$_c$ = TD + MV$_c$

However, TD and MV$_C$ do not have the same weight in assessing the *threat.* Empirical evidence suggests that high market vulnerability is much more significant than high textual deficiencies for possible criminal implications. Content is more important than form. Consequently, a high value of MV$_C$ is likely to create criminal opportunities far more than an equal value of TD.

To this purpose, in the LCT$_c$ formula TD and MV$_C$ will be weighted differently, as follows:

$$LCT_c = \mathbf{a} \cdot TD + \mathbf{b} \cdot MV_c.$$

This is a **weighted arithmetic mean**. Variables α e β constitute the weighting system, where α represents TD's weight and β MV$_c$'s weight.

On the basis of tests carried out to fix α and β values, the following have been set:

A$_{CT}$	**a** (TD WEIGHT)	**b** (MV$_C$ WEIGHT)
Regulation	0,3	0,7
Decision	0,3	0,7
Directive	0,25	0,75
Framework Directive	0,2	0,8

This set of values presents the following characteristics:

- **a < b**.

  This characteristic reflects the initial assumption: MV$_c$ plays a more significant role than TD in assessment of the crime risk due to legislation. This implies that TD weights less than MV$_c$ in the formula, whichever act is considered.

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[26] Actually, the multiplication had been proposed as alternative option. However, after having tested both the solutions, the sum has been deemed simpler than the multiplication, which expresses a non linear relation between the variables.

- $\mathbf{a}_{\text{Regulation}} = \mathbf{a}_{\text{Decision}} > \mathbf{a}_{\text{Directive}}$ [27] $> \mathbf{a}_{\text{Framework Directive}}$ [28]

  The assumption is that α varies according to the legal nature of the legislative act: the more binding the act, the more textual deficiencies may induce crime risk. Consequently, the more legally binding the act, the higher the value of α will be: for example, a Regulation should have a greater weight than a framework Directive. This mechanism allows the creation of a more flexible formula depending on the type of legislation actually subject to crime risk assessment.

- $\mathbf{a} + \mathbf{b} = 1$

  This property has been introduced for practical reasons: when the sum of the two weighting coefficients is <u>always 1</u> the consequence is that LCT_c range between 0 and 1, like TD and MV_c. Having the same range (0-1) for all the variables facilitates interpretation of the outcomes.

Examples of LCT_c calculation

A_{CT}	TD	MV_c	$LCT_c = \mathbf{a} \cdot TD + \mathbf{b} \cdot MV_c$
Regulation or Decision ($\mathbf{a}$=0,3)	0,2	0,8	0,62
	0,5	0,5	0,5
	0, 8	0,2	0,38
Directive ($\mathbf{a}$=0,25)	0,2	0,8	0,65
	0,5	0,5	0,5
	0, 8	0,2	0,35
Framework directive ($\mathbf{a}$=0,2)	0,2	0,8	0,68
	0,5	0,5	0,5
	0, 8	0,2	0,32

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[27] However, some Directives are so detailed that they are considered self-executing (i.e. they are enforceable without needing a national implementing act). In such cases they could be weighted as Regulations.

[28] Framework Directives are Directives aiming at setting general principles, without providing a detailed regulation of the field, which is left to Member States. This type of Directive is more general than a "standard" Directive, thus it has a limited prescriptive content.

3.3.2 The second component of crime risk: the Seriousness index (Sc)

The second element of the *Legislative Crime Risk index* is the *seriousness* (S_c) of a certain crime type. In the LCR index, whilst LCT_c assesses the crime threat implied by a certain legislative proposal, S_c measures the harm caused by the crimes which are likely to occur in the sector/market to be regulated.

Evaluation of the harm caused by certain crimes is a difficult undertaking, and it may require enormous resources of time and money. It is consequently necessary to simplify the analysis. The penalties and sanctions inflicted in Member States' legislations for a certain crime type can be taken as indicative of the seriousness of crimes. The main advantage of this system is the ease of gathering data, which are readily available from national legislative texts.

Penalties and sanctions are prescribed by national legislators with the purpose of deterring illicit behaviour; moreover, they are largely proportional to the seriousness of the offence. Hence the judgement on the seriousness of such behaviour has already been made by national legislators. This implies that a certain sanction is (or should be) calculated to counterbalance the commission of a certain illicit behaviour.

However, the elaboration of S_c requires further simplifications in order to deal with the extreme complexity of national criminal systems:

- *Only imprisonment is taken into account*. Imprisonment is the most common of the penalties that the Member States provide for a certain crime. Other types of penalty (e.g. fines or disqualification from public office) are not prescribed in all the Member States for the same crimes and therefore cannot represent a homogeneous criterion.

- *Only the maximum penalty/sanction is applied*. In general, penalties and sanctions can be decided by courts within a discretionary range set by the law. However, the value that best reflects the seriousness of a given crime is the maximum penalty/sanction. Indeed, the maximum sentence is a better parameter with which to assess the harm caused by potential criminal threats because it should reflect the maximum harm that a crime may cause (from the legislator's point of view).[29]

- *Only few crimes are analysed*. A Member State may include many different offences within a single crime category.

  E.g. the Italian criminal law code envisages various forms of corruptive behaviour: exaction (art. 317 c.p.), bribery of a public official to act in accordance with his/her duty (art. 318 c.p.), bribery of a public official to act contrary to his/his duties (art. 319 c.p.), bribery in the course of a trial (art. 319-ter c.p.), bribery of a public service provider (art. 320 c.p.). International sources (e.g. the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions of 1997, and the EC Treaty) add further crimes to this list.

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[29] The minimum value cannot be used. In some cases the minimum sentence is not prescribed because the penalty range is structured with the "up to" technique.

- *Among these various crimes, only the most general offences within a given crime category are used.* In this way it is possible to exclude overly specific offences, the penalties for which may vary significantly compared to the most general types of offence. The synthetic seriousness value for each crime category is the simple arithmetic mean of the maximum penalties inflicted for the relevant crimes.

- *Only a selected number of Member States are analysed.* The 25 EU Member States have different criminal law systems; however, they share a common core of criminal principles. Moreover, some Member States have criminal law systems which derive from the same legal tradition/family and display considerable similarities. Those features allow the creation of a restricted sample of Member States. These may be France, Germany, Italy, Poland, Sweden, United Kingdom, which have been selected because their legal systems, with particular regard to criminal law, are representative at EU level.

The synthetic seriousness value for each crime type is the simple arithmetic mean of the relevant crimes in the sample of Member States. It does not change according to the proposed legislation assessed.[30]

Example of S assessment, related to CORRUPTION[31]

OFFENCES UNDER "CORRUPTION"	IMPRISONMENT'S YEARS
FRANCE	
Passive corruption and trafficking in influence by persons holding public office (art. 432-11)	10
Unlawful taking of interest (art. 432-12)	5
Active corruption and trafficking in influence by private persons (art. 433-1/2)	10

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[30] The S_c formula is: $S_c = \dfrac{1}{n} \cdot \sum\limits_{i=1}^{n} \left(\dfrac{\sum\limits_{r=1}^{m_c} P_{max\ r_c}}{m_c} \right)_i$

Where:

P_{max} = Maximum penalty

r_c = Single relevant offence (r) within a crime type (c).

m_c = Number of relevant offences (m) within a crime type (c) .

i = Sample Member States (i.e. France, Germany, Italy, Poland, Sweden, United Kingdom)

n = Number of sample Member States (i.e. 6).

[31] The S assessment is here presented only for corruption as an example. The same assessment should be made for all the other crimes which are likely to occur in the sector/market to be regulated by the legislation to be crime proofed.

Arithmetic mean	**8.3**
GERMANY	
Acceptance of a benefit (Section 331, para. 1):[32]	3
Taking a bribe (Section 332, para. 1):[33]	3
Granting a benefit (Section 333):	3
Offering a bribe (Section 334):	5
Especially serious cases of taking or offering bribes (Section 335)	10
Arithmetic mean	**4.8**
ITALY	
Bribery of a public official to act in exercise of his/her duties (art. 318)	3
Bribery of a public official to act contrary to his/her duties (art. 319)	5
Arithmetic mean	**4**
POLAND	
Acceptance of a material or personal benefit or a promise thereof or demand for such a benefit in connection with the performance of a public function (art. 228)	8
Handing or promise of a material or personal benefit to a person performing public functions (art. 229)	5
Arithmetic mean	**6.5**
SWEDEN	
Bribery (Chapter 17, section 7)	2
Taking a bribe (Chapter 20, section 2)	2-6
Arithmetic mean	**3**
UNITED KINGDOM[34]	
Receiving or offering any undue reward by or to any person whatsoever, in a public office, in order to influence his behaviour in office and incline him to act contrary to the known rules of honesty and integrity	**7**
SERIOUSNESS INDEX	**5.6**

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[32] Section 331 covers the *Acceptance of a benefit* by a "public official or a person with special public service obligations" (para. 1) and by "a judge or arbitrator" (para. 2). We have selected only the first case because it is the most general one.

[33] See previous footnote.

[34] The existing UK legislation on corruption can be found in a variety of acts, from the *Public Bodies Corrupt Practices* of 1889, to the *Prevention of Corruption Acts* of 1906 and 1916, to the *London Local Authorities Act* of 1995. There is also the common law offence of bribery, consisting of many overlapping offences, broadly described in the general statement reported in this paper. See *Russell on Crime,* 12th edn, 1964, p. 381. As regards the duration of imprisonment, reported here is the penalty fixed by the *Public Bodies Corrupt Practices,* which is still in force. It should be noted that a Corruption Bill is currently being examined by a Joint Committee on the Draft Corruption Bill, to reform the matter.

Summing up the *EXTENDED CRIME RISK ASSESSMENT*

AIM	Quantifying the crime risk produced by legislation through a *Legislative Crime Risk index*
EVALUATORS:	A group of experts, providing for different expertise

CONTENT:

1) Calculating a *textual deficiencies index* (TD), using a series of indicators.

2) Calculating the *Market vulnerability index*, related to a specific crime type (MV_C), using a series of indicators.

3.a) Fixing α and β values (weighting system)

3.b) Calculating the *Legislative Crime Threat index* related to a specific crime type, through the following formula :

$$LCT_c = \mathbf{a} \cdot TD + \mathbf{b} \cdot MV_c$$

4) Building the final *Legislative Crime Risk index*, linking the *Legislative Crime Threat index* to the *seriousness value* related to a specific crime type:

$$LCR_c = [LCT_c;\ S_c]$$

This step aims at bringing together the results of the Extended CRA: the *Legislative Crime Risk index* for each crime considered and the information contained in the qualitative grids related to the single variables.

Recommendations on how the crime risk should be addressed and, consequently, legislation crime-proofed will be made to policymakers/regulators, i.e. by suggesting those textual changes likely to reduce the risk (either by reducing opportunities for crime or by introducing security measures that may mitigate the risk). It should be noted that the crime proofing process is not prescriptive: the experts advise policymakers/regulators on the unintended consequences for crime implied by the normative act and suggest to them actions to be taken in order to reduce them.

Here the process of legislative crime proofing stops and its results are given to policymakers/regulators. Relevant decisions on if and how legislation should be changed will be then made by policymakers/regulators, taking into account possible trade-offs among crime risk and other positive and negative impacts. In order to take a decision, policymakers/regulators – besides taking into consideration the results of the crime risk assessment – should perform the following activities:

a) to analyse horizontally whether the consequences for crime do not have repercussions on other economic, social or environmental factors;

b) to flag the consequences that may ensue;

c) to point out, when possible, the trade-off between the pros and cons of each consequence;

d) to decide what provisions should be modified and what security mechanisms should be introduced or strengthened.

Summing up the *CONCLUSIONS AND RECOMMENDATIONS* STEP

AIM	Suggesting recommendations on how the crime risk could be addressed and legislation proofed
EVALUATORS:	A group of experts, providing for different expertise

CONTENT:

> This step aims at bringing together the results of the Extended CRA: the *Legislative Crime Risk index* for each crime considered and the information contained in the qualitative grids related to the single variables. Recommendations on how the crime risk should be addressed and, consequently, legislation crime-proofed will be made to policymakers, i.e. by suggesting those textual changes likely to reduce the risk (either by reducing opportunities for crime or by introducing security measures that may mitigate the risk).

4. Final remarks

The crime risk assessment mechanism, built to proof legislation against crime, could now be implemented at different levels.

Even if tuned to European legislation, the mechanism could be easily applied to different types of legislation: it could take into account either soft or hard law at international, national, and local levels. It could also be extended to larger typologies of crime than those considered in this paper.

Some parts of the mechanism deserve further research. Indicators should be tuned and extended. The Seriousness index, built in this paper on a simplified indicator (the criminal sanctions provided for the related crimes), could be developed through harm indexes.

As regards the implementation, it is necessary that regulators further develop the impact assessment procedures paying more attention to the implications on crime. Their experience in combination with further research could improve the quality of the mechanism and the information provided.

ANNEX I

Summarising tables of TD and MV indicators

TABLE 1 – THE TEXTUAL DEFICIENCIES INDICATORS

INDICATORS	SUB-INDICATORS/RELATED QUESTIONS	ANSWERS
EXTERNAL CONSISTENCY	1) VOLUME OF LAW *Does the regulation add new acts to the legislative framework (instead of unifying or repealing already-existing acts)?*	YES NO NOT APPLICABLE
	2. CONTRADICTIONS IN THE LEGISLATIVE FRAMEWORK *Does the regulation conflict with or contradict other laws regulating the same field?*	YES NO NOT APPLICABLE
INTERNAL CONSISTENCY	3. INTERNAL ORGANIZATION *Does the regulation have an unclear and inconsistent structure (e.g. unclear partitions, chaotic organization, not organized from general to particular, overly long sections etc.)?*	YES NO NOT APPLICABLE
	4. CONSISTENCY AMONG THE PROVISIONS *Do the provisions conflict with one another?*	YES NO NOT APPLICABLE
CLARITY OF CONTENT	5. CLARITY OF OBJECTIVES *Are the objectives of the regulation unclear and ambiguous?*	YES NO NOT APPLICABLE
	6. RISK OF MISINTERPRETATION *Does the regulation contain generic terms/provisions which may be interpreted in different ways by different readers?*	YES NO NOT APPLICABLE
	7. DEFINITIONS *Does the regulation lack definitions of technical concepts and keywords?*	YES NO NOT APPLICABLE
ENFORCEABILITY	8. ENFORCEMENT MECHANISMS *Does the regulation lack enforcement mechanisms ensuring the fulfilment of obligations?*	YES NO NOT APPLICABLE
	9. APPLICABILITY *Does the regulation lack mechanisms and structures with which to control/guarantee its implementation by Member States (e.g. authorities, provisional dispositions, adequate deadlines)?*	YES NO NOT APPLICABLE
TD INDEX		FROM **0** TO **1**
NUMBER OF APPLICABLE INDICATORS		x/9

TABLE 2 – MARKET VULNERABILITY INDICATORS

SMUGGLING/ILLEGAL TRAFFICKING OF GOODS		
INDICATORS	SUB-INDICATORS/QUESTIONS	RESPONSES
PROFITABILITY	1. DUTIES ON LEGAL GOODS *Does the regulation introduce duties on legal goods?*	YES NO NOT APPLICABLE
	2. PRODUCTION/DISTRIBUTION OF PRODUCTS *Does the regulation restrict the production/distribution of a product or a service?*	YES NO NOT APPLICABLE
	3. ACCESS TO PRODUCTION FACTORS *Does the regulation impede access to production factors (raw materials, labour, capital)?*	YES NO NOT APPLICABLE
RISK OF DETECTION	4. IDENTIFICATION OF NATURAL AND LEGAL PERSONS *Does the regulation lack mechanisms/systems with which to identify legal and natural persons operating in the market?*	YES NO NOT APPLICABLE
	5. DISCRETIONARY POWER OF OFFICIALS *Does the regulation allow public authorities to take discretionary decisions or actions?*	YES NO NOT APPLICABLE
	6. PROFESSIONALISM AND EXPERIENCE *Does the regulation fail to stipulate the professional qualifications and experience required of guardians/officials?*	YES NO NOT APPLICABLE
ACCESSIBILITY	7. REQUIREMENTS FOR MARKET ENTRY *Does the regulation fail to stipulate administrative requirements for entry into the market (quality certificates, permits, authorizations etc.)?*	YES NO NOT APPLICABLE
	8. BACKGROUND CHECKS *Does the regulation lack provisions on background checks to be made prior to market entry?*	YES NO NOT APPLICABLE
MV INDEX		FROM **0** TO **1**
NUMBER OF APPLICABLE INDICATORS		x/8

FRAUD AGAINST PUBLIC AUTORITIES		
INDICATORS	SUB-INDICATORS/QUESTIONS	RESPONSES
PROFITABILITY	1. TAX CONCESSIONS. *Does the regulation provide for tax allowances and/or exemptions?*	YES NO NOT APPLICABLE
	2. REQUIREMENTS FOR MARKET ENTRY. *Does the regulation impose administrative requirements (quality certificates, permits, authorizations, etc.)?*	YES NO NOT APPLICABLE
	3. BENEFITS FOR THE OPERATORS. *Does the regulation introduce grants, subsidies, compensation schemes?*	YES NO NOT APPLICABLE
	4. SPECIAL REGIMES. *Does the regulation envisage special regimes (waivers, exemptions, concessions on fees or obligations etc.) for particular categories and/or in particular cases?*	YES NO NOT APPLICABLE
RISK OF DETECTION	5. IDENTIFICATION OF NATURAL AND LEGAL PERSONS. *Does the regulation lack mechanisms/systems for identification of legal and natural persons operating in the market?*	YES NO NOT APPLICABLE
	6. DISCRETIONARY POWER OF GUARDIANS/OFFICIALS. *Does the regulation allow public authorities to take discretionary decisions or actions?*	YES NO NOT APPLICABLE
	7. PROFESSIONALISM AND EXPERIENCE. *Does the regulation lack stipulation of the professional qualifications and experience required of guardians/officials?*	YES NO NOT APPLICABLE
	8. CONFLICT OF INTERESTS. *Does the regulation favour possible conflicts of interest (e.g. it does not state which circumstances and relationships are to be considered unacceptable conflict-of-interest situations; the rules for managing conflicts of interest are unclear or lacking etc.)?*	YES NO NOT APPLICABLE
ACCESSIBILITY	9. ECONOMIC THRESHOLD. *Does the regulation fail to establish an economic threshold for entry into the market?*	YES NO NOT APPLICABLE
	10. BACKGROUND CHECKS. *Does the regulation lack provisions on background checks to be made prior to market entry?*	YES NO NOT APPLICABLE
MV INDEX		FROM **0** TO **1**
NUMBER OF APPLICABLE INDICATORS		x/10

MONEY LAUNDERING		
INDICATORS	SUB-INDICATORS/QUESTIONS	RESPONSES
PROFITABILITY/ RISK OF DETECTION	1. IDENTIFICATION OF NATURAL AND LEGAL PERSONS. *Does the regulation lack mechanisms/systems for identification of legal and natural persons operating in the market?*	YES NO NOT APPLICABLE
	2. TIME TAKEN TO PERFORM A TRANSACTION. *Does the regulation allow rapid transactions to be performed?*	YES NO NOT APPLICABLE
	3. TRACEABILITY OF TRANSACTIONS. *Does the regulation lack provisions on systems/mechanisms with which to trace transactions in the market?*	YES NO NOT APPLICABLE
	4. DISCRETIONARY POWER OF GUARDIANS/OFFICIALS. *Does the regulation allow public authorities to take discretionary decisions or actions?*	YES NO NOT APPLICABLE
	5. PROFESSIONALISM AND EXPERIENCE. *Does the regulation lack stipulation of the professional qualifications and experience required of guardians/officials?*	YES NO NOT APPLICABLE
ACCESSIBILITY	6. REQUIREMENTS FOR MARKET ENTRY. *Does the regulation fail to stipulate administrative requirements for market entry (quality certificates, permits, authorizations, etc.)?*	YES NO NOT APPLICABLE
	7. BACKGROUND CHECKS. *Does the regulation lack provisions on background checks to be made prior to market entry?*	YES NO NOT APPLICABLE
MV INDEX		FROM **0** TO **1**
NUMBER OF APPLICABLE INDICATORS		x/7

CORRUPTION		
INDICATORS	SUB-INDICATORS/QUESTIONS	RESPONSES
PROFITABILITY	1. REGULATORY POWER. *Does the regulation invest authorities with the power to enact regulations, to implement measures, and/or to take decisions?*	YES NO NOT APPLICABLE
RISK OF DETECTION	2. IDENTIFICATION OF NATURAL AND LEGAL PERSONS *Does the regulation lack mechanisms/systems with which to identify legal and natural persons operating in the market?*	YES NO NOT APPLICABLE
	3. TRACEABILITY OF TRANSACTIONS. *Does the regulation lack provisions on systems/mechanisms with which to trace transactions in the market?*	YES NO NOT APPLICABLE
	4. DISCRETIONARY POWER OF GUARDIANS/OFFICIALS *Does the regulation allow public authorities to take discretionary decisions or actions?*	YES NO NOT APPLICABLE
	5. PROFESSIONALISM AND EXPERIENCE *Does the regulation fail to stipulate the professional qualifications and experience required of guardians/officials?*	YES NO NOT APPLICABLE
ACCESSIBILITY	6. BACKGROUND CHECKS *Does the regulation lack provisions on background checks to be made prior to market entry?*	YES NO NOT APPLICABLE
	7. TURNOVER OF GUARDIANS/OFFICIALS *Does the proposal fail to ensure the turnover of guardians/officials (e.g. it does not set limits on an office's renewability)?*	YES NO NOT APPLICABLE
	8. CONFLICT OF INTERESTS. *Does the regulation favour possible conflicts of interest (e.g. it does not state which circumstances and relationships are to be considered unacceptable conflict-of-interest situations; the rules for managing conflicts of interest are unclear or lacking etc.)?*	YES NO NOT APPLICABLE
MV INDEX		FROM **0** TO **1**
NUMBER OF APPLICABLE INDICATORS		x/8

ANNEX II

The excel sheet

The electronic model here presented is a user-friendly tool which enables regulators to perform the **extended crime risk assessment** process and obtain the crime risk. The model is divided into many sheets. Each sheet corresponds to a phase of extended crime risk assessment process

Its working is shown below, taking as an example a Regulation for which the PCRA has envisaged a crime risk in relation to corruption:

1° PHASE: The weighting system. In this sheet, the different weights of TD and MV are fixed, according to the criteria explained above (p. 29). When the type of act to be assessed has been selected from the menu the related α and β values will be displayed in the box. These will be used to calculate the *legislative Crime Threat* index.

THESE ARE THE SCHEDULES OF THE EXCEL SHEET, CORRESPONDING TO THE DIFFERENT STEPS OF THE CRAM

2° PHASE: the TD assessment. To assess the *textual deficiencies* of the Regulation, the law expert has to evaluate each TD indicator, by answering the questionnaire. The expert will select a response from the menu for each indicator (YES, NO or NOT APPLICABLE). The red boxes will automatically display the final TD index and the number of applicable indicators (which furnish information on the reliability of the TD assessment).

IMPORTANT! → *TD does not vary depending on the crime type considered.*

N. indicator	Questions	Responses		Textual Deficiencies	
1. Volume of law	Does the regulation add new acts to the legislative framework (instead of unifying o repealing pre-existing acts)?	**Not applicable**		**TD**	**0,50**
2. Contradictions in the legislative framework	Does the regulation enter into conflict or contradict other laws regulating the same field?	**Yes**		**Reliability**	
3. Internal organization	Has the regulation an unclear and inconsistent structure (e.g. unclear partitions, chaotic organization, not organized from general to particular, overly long sections etc.)?	**No**		**N. applicable indicators**	**8** of **9**
4. Consistency among the provisions	Do the provisions conflict with one another?	**No**			
5. Clarity of objectives	Are the objectives of the regulation unclear and ambiguous?	**No**			
6. Risk of misinterpretation	Does the regulation contain generic terms/provisions which may be interpreted in different ways by different readers?	**Yes**			
7. Definitions	Does the regulation lack definitions of technical concepts and keywords?	**Yes**			
8. Enforcement mechanisms	Does the regulation lack enforcement mechanisms ensuring the fulfilment of obligations?	**Yes**			
9. Applicability	Does the regulation lack mechanisms and structures with which to control/guarantee its implementation by Member States (e.g. authorities, provisional dispositions, adequate deadlines)?	**No**			

Instructions

Yes
No
Not applicable

Instructions / α and β / **TD** / MV smuggling / MV fraud / MV money laud. / MV corruption / LCR(results)

3° PHASE: the MV$_C$ assessment. To assess the *market vulnerability* induced by the Regulation, the group of experts has to evaluate each MV indicator, by answering the questionnaire. As explained above, the MV assessment will be performed only for those crimes envisaged by the PCRA. MV indicators related to corruption are presented here as an example. The experts will select their response from the menu for each indicator (YES, NO or NOT APPLICABLE). The red boxes will automatically display the final MV$_c$ index and the number of applicable indicators (which furnishes information on the reliability of the MV assessment).

N. indicator	Questions	Responses
1. Regulatory power	Does the regulation invest authorities of the power to enact regulations, to implement measures and/or to take decisions?	Yes
2. Identification of natural and legal persons	Does the regulation lack mechanisms/systems with which to identify legal and natural persons operating in the market?	Not applicable
3. Traceability of transactions	Does the regulation lack provisions on systems/mechanisms with which to trace transactions in the market?	Not applicable
4. Discretionary power of officials	Does the regulation allow public authorities to take discretionary decisions or actions?	Yes
5. Professionalism and experience	Does the regulation fail to stipulate the professional qualifications and experience required of guardians/officials?	Yes
6. Background checks	Does the regulation lack provisions on background checks to be made prior to market entry?	Yes
7. Turn-over of guardians/officials	Does the proposal fail to ensure the turnover of guardians/officials (e.g. it does not set limits on an office's renewability)?	No
8. Conflict of interests	Does the regulation favour possible conflicts of interest (e.g. it does not state which circumstances and relationships are to be considered unacceptable conflict-of-interest situations; the rules for managing conflicts of interest are unclear or lacking etc.)?	Yes

Market Vulnerability to corruption

MV corruption — 0,83

Reliability

N. applicable indicators — 6 of 8

Yes
No
Not applicable

Instructions

Instructions / α and β / TD / MV smuggling / MV fraud / MV money laud. / **MV corruption** / LCR(results)

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4° PHASE: the Legislative Crime Risk index (LCR). At the end of the process, the last sheet will display the final outcome of the crime risk assessment, i.e. the *Legislative Crime Risk* index, which is a vector composed of two indexes: the *Legislative Crime Threat* index (LCT) and the *Seriousness* index (S). The former comes out from TD and MV_C assessment, as weighted at the beginning of the exercise (step 1). The latter is the arithmetic mean of the penalties provided for each crime type by the sample of Member States (see above, § 3.3.2). As the picture shows, the final outcome will change depending on the crime type taken into account. In this example, only corruption has been assumed as relevant, thus the outcome will be a *Legislative Crime Risk* index related to corruption ($LCR_{corruption}$).

THE MODEL ALSO DISPLAYS THE OTHER LCT VALUES, EVEN IF MV HAS NOT BEEN ASSESSED. IT TAKES INTO ACCOUNT ONLY TD, WHICH IS A UNIQUE VALUE, NOT CHANGING DEPENDING ON THE CRIME TYPE.

Crime types	LCT	S
Smuggling of goods	0,15	
Fraud against public authorities	0,15	
Money laundering	0,15	
Corruption	0,73	5,60

Instructions

Instructions / α and β / TD / MV smuggling / MV fraud / MV money laud. / MV corruption \ LCR(results)

HERE S HAS BEEN CALCULATED ONLY FOR CORRUPTION. S CHANGES ACCORDING TO THE TYPE OF CRIME

LCT IS A VARIABLE RANGING BETWEEN 0 AND 1. 0,73 CAN BE INTERPRETED AS A MEDIUM/HIGH LEVEL OF CRIME RISK

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