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TOWARDS A FRAMEWORK TO MEASURE AND MONITOR ORGANIZED CRIME, ILLEGAL ECONOMY AND ILLICIT FINANCIAL FLOWS AT COUNTRY LEVEL

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1. Introduction

Organized crime (OC), illegal economy (IE) and illicit financial flows (IFFs) are sometimes considered as faces of the same three-side coin while they have in reality a very complex relationship. For example, organized criminal groups are one among a number of actors of the illegal economy – including corrupt public officials or contractors with specialised expertise – and illicit financial flows can be generated by both legal and illegal activities.

When analysing the links between OC, IE and IFFs, the first challenge is the very definition of these phenomena: as will be shown, important progress has been made in the last years in conceptualising and defining these issues (especially on the definition of illegal economy) but challenges remain; secondly, the lack of reliable quantitative measurements makes very difficult the development of analytical models to explore the actual links between OC, IE and IFFs.

In the stream of research activities to develop solid methodological approaches to measure organized crime, illegal economy and illicit financial flows, this paper attempts first to clarify the possible connections between the three phenomena and then to explore possible venues that might bring to better metrics in the near future.

2. Organized crime, illegal economy and illicit financial flows at the forefront of international political agenda

The approval of the Sustainable Development Goals (SDGs) is to be considered an historical landmark in the global awareness that criminal activities are not only detrimental to their direct victims but they represent a serious threat to countries, communities and their legitimate governments (United Nations 2015). Goal 16 of the SDGs indicates that serious crime, both violent and non-violent, needs to be addressed as it threatens peace, security, justice and the rule of law at large. This awareness has been supported by a broad corpus of research that has shown the negative impact of criminal activities on sustainable development. This is more evident in contexts where crime is violent and, because of its nature, it has a direct and somewhat measurable impact on personal security and rule of law: experiences of recent decades in a number of countries in Latin America, Africa and Asia, have indicated that violent crime is closely associated with weak rule of law, thus causing a negative impact on economic and development performance of countries and communities (World Bank 2011; UNODC 2011b; UNODC 2014; UNDP 2013).

But crime can be very detrimental to economic and social development also when it does not become violent. Especially organized crime, in its manifold facets, can pose very serious threats to the correct functioning of societies, economies and institutions. However, it is very difficult to assess the economic dimension of illegal activities and their impact. For different reasons, both in developing and developed countries, interest has grown to understand the size and the impact of illegal economy, i.e. the economic output of criminal activities, and of financial flows of illicit nature. This interest derives from a number of political drives:
- identify and combat laundering of criminal proceeds of OCGs
- assess and reduce impact of organized crime on security, economy and the rule of law
- reduce illicit financial outflows from developing countries, especially in relation with corruption, stolen assets and other criminal proceeds
- identify and combat channel of financing of terrorism
- interest of developed countries' to curb tax evasion

Such converging interests were consolidated in Goal 16 of the Sustainable Development Goals, where a number of targets focussed on the reduction of various forms of illicit trafficking, corruption and on the strengthening of the rule of law.

3. Defining the concepts, a review

Organized crime

Despite several decades of academic and operational research, the concept of organized crime can still assume varying meanings and it is frequently used in reference to very different phenomena, ranging from mafia-type organizations to criminal enterprises perpetrating financial crimes (Varese 2010). In literature, a remarkable number of definitions of organized crime have been proposed. A recent count has identified more than 180 different definitions proposed by scholars (von Lampe 2015). As the term suggests, the concept of organized crime is not defined in itself – i.e. in terms of criminal offences with specific characteristics - but rather in terms of the type of offender that is perpetrating it. Thus OC is defined in terms of Organized Criminal Groups (OCGs) to distinguish ´opportunistic individual´ crimes from those perpetrated by structured groups, which represent a more serious threat to social order, rule of law and the economy.

Several and diverse requirements have been considered in literature as being necessary to qualify a certain criminal enterprise as an OCG. Building on analyses accomplished by a number of scholars (Hagan 2006; Albanese 2008; Finckenauer 2005), three main criteria have typically been considered to label a group of coordinated offenders as an organized criminal group:

1. structural characteristics of the group: elements such as organizational model of the group (hierarchical or network based, for example) and/or the affiliation background or, in other terms, the common features of OCG members, as their ethnic/geographical background, are considered as relevant to define the nature of a criminal group. Continuity of the group, i.e. existence of the group beyond individual members, is also considered as an important feature of OCGs.

2. OCGs are seen as different from other groups for the fact they adopt specific modus operandi. In origin, OCGs were mainly characterised by large use of violence or intimidation, which eventually evolved to more sophisticated or/and they facilitate their activities through corruption of public or even private officials (Maltz 1994). Notably, through their modus operandi, OCGs also define their relationship with the geographical territory where they operate, whose extremes range from forms of social, political and economic control to lack of interaction or camouflage (Sallusti 2014).

3. OCGs are criminal enterprises engaged in illegal activities for profit-making. Usually such illegal activities are instrumental to supplying goods or services that are in public demand and sometimes OCGs may perform such activities in a monopoly regime. OCGs may be specialised in one or more illegal trafficking, either of goods or services, and they might also differ according to their involvement in one or more stages of the relevant illegal activity (as for example in terms of production, trafficking or selling of one or more illicit drugs).

While definitions existing in literature may substantially differ, they usually refer to all dimensions listed above (organization/affiliation, modus operandi, profit-making illegal activities).

The variety of approaches in defining OC or OCGs in criminological research is paralleled by very diverse approaches about defining organized crime in criminal law (Calderoni 2012a). In this area, the UN Convention against Transnational Organized Crime (UNTOC), designs the common framework for legislation on OC and it establishes the conditions for legal international cooperation. The Convention does not define organized crime per se but it provides a definition of Organized Criminal Group, which is defined as a '*structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit*' (cfr. UNTOC, Art. 2 - a). In its essence, an OCG exists when:

- It aims to commit one or more serious offences
- It exists for a period of time, with a structure and its members act in concert
- For financial or other material benefit

Cornerstone of this definition is the concept of serious crime, which is defined in terms of its punibility as such is any conduct ´*constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty*´, (cfr. UNTOC, Art. 2 - b). This definition is merely a legal construct, as no reference is made – for example - to type or motivation of crime. Several predicate offences can constitute the basis to prosecute a group of criminals and this is consistent with the objective of the Convention, which aims to facilitate and support international collaboration. (Calderoni 2012b).

The broad definition provided by UNTOC has the great advantage of offering a framework to identify OCGs and it is flexible enough to be adapted to national circumstances. On the other hand, it does not provide elements to characterise the nature, modus operandi, scope of activities of OCGs. For example, the formal requirements identified above can be used in relation to ´white collar crimes´ committed by a group of public or private officials as well as in relation to youth gangs engaged in a violent turf war with a competitor group to control illicit drugs market in the neighbourhood.

The UNTOC definition of organized criminal groups remains a valid reference for the purpose of producing statistical data. In general terms, two types of data can be produced in relation to OCGs:

1. data/information on OCGs: the subjects of OC are at the centre of operational and academic research but – for obvious reasons – solid and/or accessible sources of information are usually lacking. Less traditional sources of information, including qualitative surveys or case studies analyses, can produce valuable information in these cases. While UNCTOC definition can be used as a reference, a more refined analytical framework can be used in these cases to describe the diversity of existing organized criminal groups. For example, the comparative study of OCGs would benefit from a classification system that could include, for example, the following dimensions:
   - Geographic scope of the activity: subnational/national/international
   - Size of OCGs: members affiliate to OCGs and number of OCGs operating in a given context
   - Organisational model of OCGs: hierarchical/network and distribution of tasks along the business chain
   - OCGs affiliation background: geographical origin/family/clan/nationality/economic occupation/activity
   - Modus operandi: use of violence and/or intimidation, corruption of officials, relationship with local environment (territorial control/camouflage)

o Type of illegal activity undertaken by OCGs: illicit drugs, firearms, counterfeiting, etc.

2. data on events or activities associated with OCGs. A reference definition is useful to associate criminal events to their perpetrators – when they are known – so that statistical information can be produced in a regular and coordinated manner. This is the approach followed by the International Classification of Crime for Statistical Purposes (ICCS), where a specific 'tag' is included to identify criminal offences perpetrated by OCGs to allow the production of detailed statistics on them (UNODC, 2015).

Illegal economy

In general terms, the illegal economy refers to illicit activities that generate added value or income and, in this way, contribute to the national or global economic output. Put in these terms, illegal economy clearly departs from the 'economic cost of crime', a distinct policy and research area which focuses on tangible and intangible impact of crime on individuals and the society at large. The types of costs of crime are manifold and they certainly include losses suffered by victims, costs to maintain the law enforcement and criminal justice systems, private costs to prevent crime – including security services - and indirect losses such as pain, suffering and psychological distress (McCollister, French, and Fang 2010; Jaitman et al. 2015).

The concept of illegal economy remains sometimes blurred in the public discourse as it can be confused with related concepts, such as underground or informal economy (Zumbrun 2014). More clarity on its definition and boundaries can be found in the framework of the national accounts, the statistical framework to measure economic activity at country level. The latest international standards on national accounts, namely the SNA 2008 and ESA 2010 (European Commission et al. 2009; Eurostat 2014) clarify that the illegal economy is part of the so-called non-observed economy, which is composed of four different elements (OECD et al. 2002):

a. underground economy: it includes activities that are productive and legal but are deliberately concealed from public authorities to avoid payment of taxes, social security contributions or not meet certain legal or administrative standards
b. informal economy: it includes those productive activities conducted by informal sector (unincorporated enterprises in the household sector) which are not statistically measured and it also includes those activities undertaken by households for their own final use,
c. illegal economy: it covers those productive activities that generate goods and services forbidden by law (e.g. production and distribution of illegal drugs) or are unlawful when carried out by unauthorised producers (e.g. unlicensed practice of medicine).
d. statistical underground: it includes other activities that are omitted due to deficiencies in the basic data collection program, as for example for under-coverage of business sample frames or for non-response of surveyed units.

Considering the illegal economy in the statistical framework of the national accounts means that its definition and estimation have to be consistent with concepts and statistical procedures adopted for the national account at large. Cornerstone of national accounts is the concept of economic transaction, which is ´an economic flow that is an interaction between institutional units that happens by mutual agreement´ (European Commission et al. 2009). Productive activities included in the illegal economy are therefore those economic transactions related to illegal goods and services and it derives that only illegal actions having the features of an economic transaction are to be included in the illegal

economy. Examples are the production/trafficking of illicit goods (drugs, counterfeited goods, illicitly trafficked weapons, protected wildlife, etc.) and the provision of illicit services (as for example smuggling of migrants or corruption). On the contrary, illegal actions that happen in absence of mutual agreement, such as thefts or robberies, are outside the scope of the illegal economy while the successive re-sale of stolen assets qualifies again as economic transaction and should in principle be included in the economic accounts (Blades 1983).

In the case of the crime of tax evasion, no transaction takes place as the due amount is not paid to tax authorities and no value is thus accrued to the illegal economy. Only services paid to hide income and/or evade taxes, for example in the form of fees paid to intermediaries, are to be considered as illegal economic activities. Similarly, in the case of money-laundering only transactions related to concealing the illegal origin of crime proceeds should be included in the illegal economy, while the surplus generated by the sale of assets to money-launderers should not be included in the illegal economy.

Table 1: Treatment of selected illegal activities in statistical count of illegal economy

Illegal activities to be included in illegal economy count (*not exhaustive list*)	Illegal activities not to be included in illegal economy count (*not exhaustive list*)
- Bribery - Illicit drugs production and trafficking - Smuggling of goods (e.g. tobacco and alcohol) - Trafficking of firearms - Prostitution - Smuggling of migrants - Counterfeiting of goods - Illicit trafficking of wildlife - Fencing of stolen goods - Services related to tax evasion - Services related to money-laundering	- Theft (incl. burglary and robbery) - Trafficking in persons - Kidnapping-related ransom - Extortion

Illicit financial flows

While being at the forefront of international political agenda, the concept of illicit financial flows (IFFs) is still relatively vague. As the term intuitively suggests, IFFs refer to illicit or illegal movements of money or capital from one country to another. Nowadays, a standardized definition of which type of capital or financial movements should be considered as IFFs is still lacking.

Part of the uncertainty is probably due to the fact that the debate on ´irregular´ financial outflows started in the framework of development policies and analyses. In that context, capital flight (the term used at that time) was considered as a major issue with a negative impact on economic and social growth of developing countries. During the last decades of XX century, capital flight – outflows of private capital from residents - was seen as heavily detrimental for developing countries (Chang, Claessens, and Cumby 1997). This broad definition included all investments by residents in foreign assets, including those made abroad by nationals as part of a strategy of portfolio diversification. In general, ´capital flight is understood as the movement of funds abroad in order to secure better returns, often in response to an unfavourable business climate in the country of origin´(UNECA 2013). A discussion then began on whether the focus had to be only on secretive or irregular outflows and only this portion had to be addressed and stopped by specific policies (Dooley 1986).

The shift to the term illicit financial flows was then invoked to clarify the concept, in order to highlight the focus on the irregular share of transnational flows, but also to convey a political message: while capital flight tended to put all responsibility on developing countries, the reference to financial flows underlined that a two-way relationship existed, with responsibilities on both countries of origin and on those of destination (Baker 2009).

While the focus towards ´irregular´ flows appears to be consolidated, the next step is to clarify whether the defining term should be 'illegal' or 'illicit', where the former term highlights practices not abiding the law and the latter focuses on flows not complying with social or other norms. For example, in the attempt to identify those transnational flows having a negative impact on development, it has been proposed to consider IFF as the ´one that has an overall negative effect on economic growth, taking into account both direct and indirect effects in the context of the specific political settlement of a country´ (Blankenburg and Khan 2012). In this definition, what matters is the final development outcome of capital flows, instead of its being legal (law abiding) or not: an analytical attribute (detrimental to development) is used as a defining criterion. In fact, this approach falls short of giving a clear, objective and unequivocal definition of the essential idea of IFFs.

At international level, illicit financial flows are repeatedly considered in reference to those financial flows that have – at some point - broken the law, either because of their origin, their modality of transfer or because of the illegality of their use (Baker 2005; UNECA 2013; OECD - DAC 2013; OECD 2014; Herkenrath 2014). For example, one frequently used definition refers to IFFs as those funds crossing borders that are illegally earned, transferred, and/or utilized (Global Financial Integrity 2015). A more precise definition refer to IFFs as those funds ´generated by methods, practices and crimes aiming to transfer financial capital out of a country in contravention of national or international laws´(OECD 2014).

The inclusion of the target to reduce illicit financial flows in Goal 16 of the Sustainable Development Goals (United Nations 2015) will probably accelerate the process of adopting an internationally agreed and standardised definition of illicit financial flows, at least for statistical purposes. On the basis of current practices and literature (Reuter 2012), it appears that the following typologies of transnational financial flows are typically included in the IFFs:

- Cross-border flows of funds or financial assets that have been generated in the illegal economy and by other illegal activities whose economic value is not included in the illegal economy (e.g. tax evasion and other fiscal crimes). To a large extent this component of IFFs corresponds to transnational money-laundering, i.e. transfer abroad of funds illegally earned for the purpose of disguising or concealing the origin of funds.
- Cross border flows of funds or other financial assets that are legally generated but are illegally transferred, i.e. not in compliance with capital export or import regulations. This component would include that part of flows due to a ´portfolio choice´ of residents but transferred outside capital exports regulations
- Cross border flows of funds or other financial assets that are legally generated but are transferred abroad for illegal purposes, such as corruption or financing of terrorism.

It can be argued that also cross border flows of funds or other financial assets in relation to practices of tax avoidance should also be considered as IFFs. The inclusion of this typology of flow is controversial though, as such practices can be formally legal[1].

4. Linking OC, IE and IFFs

Based on the above discussion, the respective role of organized criminal groups, illegal economy and illicit financial flows can be clarified. Organized criminal groups can be seen as the main actor of the illegal economy, as they exist as consolidated and structured actor in providing illegal goods and services for the purpose of profit-making. Quantifying the illegal economy constitute an indirect measure of the presence and role of organized criminal group, as OCGs typically play a major role in the most profitable forms of illicit trafficking, such as drug trafficking, counterfeiting or smuggling of migrants. Jointly with tax evasion, profits generated from the illegal economy need to be concealed from state authorities and a significant, though unknown, share is sent abroad.

Figure 1: framework linking organized criminal groups, illegal economy and illicit financial flows
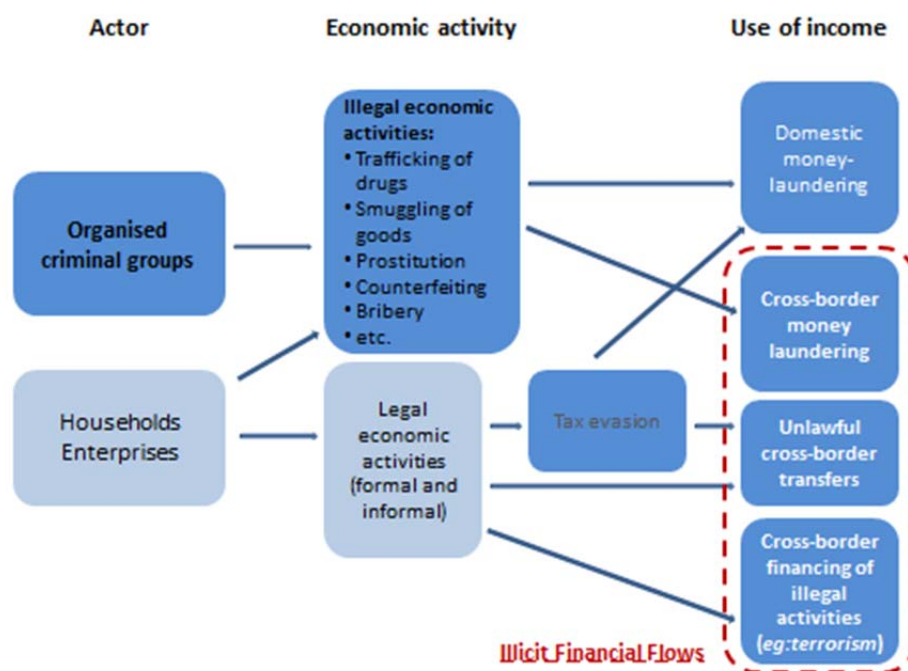
As indicated in the chart, IFFs are formed by four types of trans-border transactions:
- The share of crime proceeds that is laundered abroad
- The share of tax evasion that is laundered abroad
- Funds legally generated that are sent abroad in violation of national and/or international transfers regulations
- Funds legally generated that are sent abroad to finance illegal activities such as terrorism and corruption

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[1] An example is the so-called transfer price manipulation, where multinational enterprise shift income from high-tax to low-tax jurisdictions by over- and under-invoicing intrafirm transactions (Eden 2012).

5. Possible venues to measure OC, IE and IFFs, a discussion

As sketched in the above framework, understanding mechanisms and size of the illegal economy is crucial. Defining and measuring illegal markets is important to understand the overall functioning of an economy and of its illegal portion, to monitor activities and outreach of organized criminal group and to establish the amount of crime proceeds that will be reutilised, directly or through money laundering, either domestically or in the form of cross-border transactions.

Solid statistical tools are needed to produce reliable estimates of illegal economy and important work has been conducted in this area over the last few years, especially in European countries. Furthermore, to improve statistical information on organized crime and illicit financial flows, respectively, additional metrics and frameworks are needed. In the following sections, a review of promising venues is presented.

Organized crime

Several approaches have been proposed and at least partially implemented to build metrics of organized crime. Measurement challenges include the conceptual difficulty to define the object of research in precise and operationally feasible terms and the poor availability of objective data, given the hidden nature of actors and activities of interest (for a recent review see Savona, Dugato, and Garofalo 2013).

Several approaches to provide statistical measurements of criminal activities committed by OCGs and on their composition typically rely on offences detected by or reported to law enforcement agencies, such as arrests, convictions or seizures/confiscations of illicit goods. This means that such data can only provide an assessment of the share of criminal activities that become known to law enforcement authorities. In themselves, these data are often difficult to interpret, especially in terms of international comparability, as they are a reflection of national policies, operational capacities and, last but not least, subject to different recording and counting rules (Bisogno, Dawson-Faber, and Jandl 2015; Aebi 2008).

A different approach in the study of organized crime puts its focus on the dimension of illegal economic activities and markets rather than on activities and size of criminal groups. This basic shift is embedded in a different criminological approach that considers crime opportunity reduction as an alternative strategy against crime rather than merely focussing on criminals and on how to support law enforcement activities (Clarke 1983). Accordingly, in this approach the focus is on the functioning of illegal markets and this entails, as in any other market, assessing supply and demand, as well as its regulation and its competitive actors (Vander Beken 2004; Albanese 2008). Putting illegal markets at the core of research efforts has the advantage of understanding ´where the opportunities for organized crime lie´(Savona 2014). Such activities can vary across countries and understanding their functioning is key to assess how to reduce opportunities for organized criminal groups, also because they can be subject to sudden changes, as a consequence of market shifts and regulatory changes (Bullock, Clarke, and Tilley 2010).

Building estimates of the value of illegal activities thus appears as a promising way to monitor organized crime, while it should be kept in mind that the relationship between organized Criminal Groups and value of illegal economic activities is neither necessarily direct nor simple. For example, not all the actors of illegal markets are members of organized criminal groups (street level drug

pushers or sex workers, for example) and this means that no simple extrapolation can be made between value of illegal economic activities and OCGs turnover.

The production of estimates of the illegal economy at country level, separately for a number of illegal markets such as illicit drugs, firearms trafficking, smuggling of migrants, etc., appears as the primary pillar of a statistical framework to measure OC, which can be complemented by two other lines of analysis:

1. Analysis of offences, victims and perpetrators of crimes associated with OC on the basis of law enforcement and criminal justice data. When levels and trends of illegal economy are monitored, information based on detected crimes can be used to better understand the functioning of criminal groups and of their modus operandi, as well as to evaluate law enforcement activities to combat crime. From this point of view, the International Classification of Crime for Statistical Purposes (ICCS) suggests that data on crime should be recorded in a such a way to identify offences where the participation in an OCG was integral part of the modus operandi of the crime (UNODC 2015). A selection of data topics is provided as an initial set of variables and indicators to assess modus operandi of OCG (table 2)
2. Vulnerabilities: operations of OCGs do not take place in a vacuum. In the assessment of OCGs activities or risks it is important to account for the institutional or socio-economic context, as such elements can play a decisive role in facilitating or preventing OCG activities. An initial set of topics is listed to assess a number of vulnerabilities that can facilitate operations by OCGs (table 3)

Table 2: list of selected data topics relevant for measurement of Organized Crime at national level

Illegal activities		Type of data	
		Offences/ arrests	Seizures of goods/victims
Associated/instrumental offences of OC	Intentional homicide (by type, by weapon)	x	
	Serious threat	x	
	Property damage/Arson	x	
	Money laundering	x	
	Organized crime affiliation	x	
Offences with lower degree of organization (illegal activities at national level)	Robbery	x	
	Burglary	x	
	Kidnapping	x	
	Extortion	x	
	Fencing of stolen goods	x	
	Usury	x	
	Bribery	x	
	Exploitation of prostitution	x	
	Betting/gambling	x	
Offences with higher degree of organization (illegal activities usually with transnational dimension)	Trafficking of counterfeited products	x	x
	Trafficking of counterfeited medicines	x	x
	Trafficking in persons	x	x
	Smuggling of migrants	x	x
	Trafficking of firearms	x	x
	Trafficking of illicit drugs	x	x
	Trafficking of tobacco/alcohol	x	x
	Illegal waste dumping	x	x
	Trafficking in wildlife	x	x
	Grand corruption	x	x

Table 3: list of selected topics to measure vulnerability to Organized Crime at national level

Topics	variable
Informal sector	Informal sector as share of GDP
	Number of irregular workers
Tax evasion	Tax gap
Compliance with AML regulation	Compliance with FATF recommendations
	Frequency of cash use
	Police clearance rates (selected crimes)
Financial and banking secrecy	To be determined
Transparency of business ownership	To be determined
Criminal justice effectiveness	Ratio between persons arrested and number of reported crimes (selected crimes)
	Share of cases processed by prosecutor within 3 months (selected crimes)
	Ratio between persons convicted and persons prosecuted (selected offences)
Legislation on confiscation of crime proceeds	Value of properties confiscated from affiliates of organized criminal groups

Illegal economy

Illegal economic activities are part of the functioning of an economy: money is spent on illicit goods or services and income is generated that is eventually used or invested in the legal economy. In order to provide a more comprehensive picture of reality, more and more countries are gradually considering to include the economic value of illicit activities in national accounts estimates. This

approach, far from being a source of legitimisation of illegal and/or unethical activities, responds to the need of reflecting the actual functioning of the economy and the society, primary goal of statistical activities (Economic and Social Council 2013). The inclusion of illegal activities in GDP was already recommended at international level since 1993 (see SNA1993 and ESA1995) and some countries had started to implement such recommendation. In this process, the decision at Eurostat level to make it compulsory for EU member states to include selected illegal activities in the GDP, starting from 2014, represents an important step in this process (Eurostat - GNI Committee 2012) [2]

In practical terms, the development of methodologies to estimate illegal markets is often hindered by the lack of suitable data sources, as traditional sources such as administrative registers and business surveys can be of limited use to capture illegal activities - highly hidden phenomena by nature. In general terms, any market is shaped by supply and demand of a certain good or service and this applies to market of illicit goods/services as well. Estimates of illicit markets are possible when some data exist in relation to supply or demand (or both) of a given illegal good/service.

In literature, methods have been developed to estimate the economic value of a series of illicit goods/services (Transcrime 2015), while information on methodologies used by EU members to comply with Eurostat recommendation is not yet widely available. The following approaches are often used to estimate three illegal activities that EU countries need to include in their National Accounts (Statistics Sweden 2008; Statistics Netherlands 2012; Office for National Statistics 2014; Istat 2016):

• Illicit drugs market: estimates based on illicit drugs demand. Usually, the economic value is estimated on the basis of illicit drugs users, average consumption and average cost per unit.

• Illicit trade in tobacco products: it is usually based on estimates of supply of smuggled cigarettes, which is often related to seizure data. A complementary approach is based on estimates of illegal cigarettes consumed, as produced on the basis of so called ´empty packet surveys´(KPMG 2013).

• Prostitution: estimates based on supply of sex workers´ services. Usually, the economic value is estimated on the basis of estimates of number of prostitutes, average number of service deliveries and average cost per unit (TAMPEP 2009).

For other illegal activities – short of primary data sources - estimates are often based on simplifying hypotheses, such as assuming that trade of a certain illegal good corresponds to a fixed share of legal trade. Such methods have for example been proposed for illicit trafficking of firearms and for counterfeiting (Transcrime 2015). Current methodological work, especially at European level, will probably bring to further developments in the near future, including on topics such as smuggling of migrants, trafficking of firearms and trafficking of wildlife. The production of data on illegal economic activities at national level will eventually require a coordinated international effort of harmonization to build regional or global estimates in relation to specific illegal activities.

Illicit financial flows

Money laundering and illicit financial flows are often used interchangeably but some differences exist: the former is the process of transforming the proceeds of crime into legitimate money or other assets, while the latter refers to methods and practices aimed at transferring financial capital out of a

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[2] Starting from 2014, EU member states have to estimate the added value generated by three illegal activities: production and trafficking of illicit drugs, prostitution and tobacco/alcohol smuggling.

country in contravention of national or international laws. Thus, while money laundering focuses on the criminal origin of funds and the consequent objective by criminals to clean the money for further use, the latter puts its accent on the illicit transfer of money from one country to another.

Differences therefore exist in the sense that, for example, money laundering does not necessarily entail transferring funds from one country to another and, conversely, funds/assets lawfully earned can result in illicit flows if they are transferred abroad not respecting existing regulations. Bearing such differences in mind is important when assessing or monitoring money laundering and illicit financial flows as possible indicators of organized crime presence and activities.

Building quantitative estimates of illicit financial flows is extremely challenging due to the covert nature of this phenomenon - which implies an absolute shortage of primary data - and the multiplicity of forms and layers of financial transactions involved in IFFs. In literature, a number of methods have been proposed to estimate IFFs (for a review see (Schneider 2010; UNODC 2011a; Reuter 2013; Unger and van der Linde 2013) but they all face challenges in developing an operational or analytical model of IFFs, and of identifying the primary data to feed their models.

In recent years, estimates of IFFs produced by a Global Financial Integrity – GFI, a US-based NGO - have gained increasing popularity and are often referred to as the global source of information on illicit financial flows originating from developing countries (Global Financial Integrity 2015). In recent years, such estimates have been subjected to heavy criticism (Nitsch 2015) in relation to the lack of transparency and more importantly because they are built on one interpretation of inconsistencies of international trade statistics – the discrepancies between trade statistics as reported by import and export countries – that is highly questionable. GFI assumes that discrepancies between export and import trade statistics are indicative of illegal and concealed cross-border transfers of money, while other reasons can explain these differences, including different recording practices and operational capacities of national statistical systems. Furthermore, no convincing explanation is provided that trade mis-invoicing is the preferred channel to transfer illicit funds abroad.

The starting point to develop proper methodologies to estimate IFFs can be the recognition that they can be originated by a number of illegal activities and actions. Each type of IFFs is characterised by specific operating mechanisms and related sources of information should change accordingly.

a. Illegal economy: a two-step procedure can be imagined to estimate IFFs originated from this source:
   - Estimation of the total added value generated by the illegal economy, for as many types of illegal activities as possible (e.g.: drug trafficking, firearms trafficking, smuggling of migrants, etc.) to produce a national estimate of economic value generated by illegal activities
   - Estimation of three main categories of possible use of crime proceeds: own consumption by criminal groups, utilization of generated income to acquire assets in the domestic legal economy and utilization of generated income to acquire assets in legal economy abroad. The last two cases correspond to money laundering, as the illegal origin of wealth is typically disguised to divert the attention by law enforcement authorities. For the purpose of estimating IFFs generated from the illegal economy, it is needed to measure the share of the third typology (acquisition of legal assets abroad).

b. Tax evasion: a three-step procedure can be imagined to estimate IFFs originated from this source:
   - estimate the tax gap at national level

- Estimate the share of tax gap that can be attributed to tax evasion (tax gap includes other types of unpaid taxes not amounting to the criminal offence of tax evasion)
- Estimate the share of tax evasion that is channelled abroad

The production of tax gap estimates, an extremely complex exercise, has been undertaken by a growing number of countries, as it represents a key metric to assess the effectiveness of national policies to promote tax compliance (Internal Revenue Service 2016; HM Revenues and customs 2016; Ministero Economia e Finanze 2016).

Table 4: tax gap estimates in selected countries, various years

Country	Tax gap	Reference period	Unit	% of total tax liabilities
Italy	98.3	*2012-2013*	*Billion Euros*	24.0%
United Kingdom	36	*2014-15*	*Billion Pounds*	6.5%
United States	458	*2008-2010*	*Billion US Dollars*	18.3%

Source: Internal Revenue Service 2016; HM Revenues and customs 2016; Ministero Economia e Finanze 2016

Estimating the tax gap being the first step, the share of tax evasion is the second: for example, in the United Kingdom, tax evasion is estimated to account for 14.4 per cent of the tax gap, a relatively small portion (HM Revenues and customs 2016). Finally, as in the case of value generated by the illegal economy, the last step is to identify and measure the share of tax evasion that is transferred abroad to be concealed to tax and law enforcement authorities.

c. Unlawful cross border transfers

For this IFFs type, unlawfulness refers to the funds transferring modality, as in the case of currency regulation offences. Defining and estimating this type of transfers is challenging, as it can be extremely complex to determine whether certain transfers are not compliant with regulations in force. From a substantive point of view, this type of flows could capture part of those funds of legal origin that are illegally transferred abroad for the purpose of increasing returns or for fear of political risks. In the political discourse, these funds are an important component of those often referred to as ´capital flight´ (Herkenrath 2014). The actual estimate of these transfers can be very complex and, in any case, it should be taken into account that funds originated from the illegal economy and/or from tax evasion are typically transferred circumventing financial transfers regulations and double counting of such flows should be carefully avoided.

d. Cross-border transfers for illegal purposes

Estimating transfers of funds that are legally generated, legally transferred but illegally used is extremely challenging. Two crimes for which IFFs most probably represent a significant source of funding are corruption, especially ´grand corruption´, and terrorism. For the former case, it is highly

probable that funds transferred abroad for this purpose are already included in the count of cross-border transfers generated by the illegal economy or from tax evasion. For the latter, it is necessary to estimate the size of funds financing terrorism that are of legal origin, a challenging task.

To summarize, the estimation of IFFs should be built around three main pillars:

- estimate of illegal economy and tax evasion and on estimating the share of the proceeds of such activities that is transferred abroad.
- estimate of legally produced income that is illegally transferred abroad
- estimate of legally produced income that is transferred abroad for illicit use such as financing of terrorism or corruption

These components have different nature and pose different statistical challenges. In the first case, once annual estimates are produced of income illegally generated or funds made available from tax evasion, sources of information on the share transferred abroad need to be identified. It appears even more challenging to identify the share of legally generated income that is transferred against national and/or international regulations or to finance illegal activities. In all cases, the use of data sources on financial flows, as those managed by monetary authorities and/or Financial Intelligence Units, can provide valuable information. For example, the use of information on bank transfers can be used to identify financial flows that – not being explained by legal economic activities - can be associated with an illegal origin (Cassetta et al. 2014). Further knowledge is also needed on actual mechanisms of illegal financial transfers so that research and data production are channelled in the right direction (Ardizzi, De Franceschi, and Giammatteo 2016).

A gradual process to build IFFs estimates can start by focusing first on estimates of the illegal economy and tax evasion and of their share that is transferred abroad, while addressing the estimation of funds of legal origin but transferred illegally or for illegal use in a second .

6. Concluding remarks

This review has attempted to clarify concepts of organized crime, illegal economy and illicit financial flows, and to identify existing relationships between them. Two main suggestions are provided in relation to future work:

- estimating the size and functioning of the illegal economy is central to make progress in on-going efforts to measure and monitor organized crime
- estimates of the share of illegal economy proceeds and of tax evasion that are transferred abroad can represent a solid proxy of illicit financial flows departing from a given country.

While the proposed conceptual framework clarifies existing links and the various types of illicit financial flows, new sources and analytical models need to be developed to build solid statistical measures. To achieve this goal, it is necessary to join expertise, data and methodologies from statistical areas that have so far collaborated only occasionally: data producers on crime statistics, national accounts, financial and monetary statistics, and balance of payment statistics need to work collaboratively to develop those methodologies that are necessary to monitor target 16.4.1 of the 2030 Sustainable Development Agenda.

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