What Do Suspicious Transaction Reports Actually Capture? Evidence from Italy

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Abstract

The pernicious societal impact of money laundering has motivated the establishment of a far-reaching anti-money laundering regime worldwide. Over the decades, scholars have questioned the effectiveness of this regime and criticized its premises and working mechanisms. However, minimal attention has been dedicated to suspicious transactions reports, a cornerstone tool of the anti-money laundering regime. The present study extracts and triangulates data on the Italian anti-money laundering system from several institutional sources to assess to what extent suspicious transactions reports contribute to support criminal investigations. Results show that, on average, the analysis of a new suspicious transaction report out of 19 provides a relevant information for an ongoing investigation; a suspicious transaction report out of 100 provides information that leads to new criminal proceedings. 16% of all money laundering investigations conducted by the Economic Crime Police started thanks to suspicious transaction reports. Finally, most (87.6%) of the new criminal proceedings prompted by suspicious transaction reports relates to crimes other than money laundering (e.g., frauds, loansharking, tax evasion).

Keywords

Anti-money laundering; STRs; Criminal investigations; Financial Intelligence Units; Suspicious activities; Effectiveness analysis

Introduction

Since the late 1980s, the grave concern about the threat posed by money laundering (ML) to the global financial system and society at large has motivated the rise and establishment of a wide-reach Anti-Money Laundering (AML) regime (Halliday et al., 2019). The cornerstone of such regime is the so-called "responsibilization" of financial institutions (e.g., banks, insurance companies, providers of betting services) and, to a lesser extent, professionals (e.g., notaries, accountants) (Garland, 1996). Financial institutions are tasked to act as "gate-keepers" to prevent the flow of illicit proceeds into

the financial system, to monitor the financial transactions they handle, and to inform public authorities about ML risks by filing Suspicious Transaction Reports (STRs) to their national Financial Intelligence Units (FIUs) (Levi & Reuter, 2006). Obliged entities' failures to comply with these obligations may result in fines or, in more serious cases, criminal charges against their apical personnel. Once received, national FIUs investigate STRs and transfer the relevant ones to police and judicial authorities for further investigation, enforcement, and prosecution.

Despite the wide interest of scholars in assessing the effectiveness and efficiency of the global AML regime (Gerbrands et al., 2022; Masciandaro, 1999; Truman & Reuter, 2004), empirical research on STRs is still scarce to date. Some scholars focused on assessing potential behaviors of under/over reporting by obliged entities (e.g., dalla Pellegrina et al., 2022). Others used some of the few available microdata associated to STRs to provide insights on country destinations of illicit proceeds (e.g., Cassetta et al., 2014) or to validate models of criminal decision-making (e.g., Ferwerda et al., 2020). However, minimal attention has been devoted to the underlying activities detected by STRs. In other words, despite being acknowledged that STRs represent suspicious and not evidence (Aziani, 2018; dalla Pellegrina & Masciandaro, 2009), it remains unclear to what extent STRs identify ML behavior and support law enforcement investigations. Of note, to date, there is "no measurement of what effort (including speed) the public authorities put into analyzing or disseminating the reports if and when received, or with the results that effort brings" (Levi et al., 2018, p. 319).

To address this knowledge gap, our study exploits openly available (aggregated) data on STRs and answers to the following question: To what extent do STRs capture money laundering cases and contribute to the law enforcement investigations? The answer to this question provides research and policy contributions. First, to understand what STRs actually capture is necessary to correctly use the information contained in STRs for research purposes. Second, from a policy point of view, the answer to this question contributes to the assessment of effectiveness and efficiency of the international AML regime, thus adding to the current debate both in the academic and the policy environment.

The paper develops around the following structure. The first section outlines the literature on STRs and presents our research question. The second section describes the current study and provides details on the exploited Italian data and the adopted empirical methodology. The third section presents our results in terms of trends in STRs analyzed in Italy, statistics on the number of new investigations prompted by STRs, the distribution of predicate offences related to the STRs. The fourth section provides an exploratory discussion on the effectiveness and the efficiency of STRs and comments on the limitations of our analysis. The paper concludes outlining the most relevant implications of the study.

Literature review

Scholars have long been reviewing the premises, mechanisms and outcomes of the global AML regime, attempting to assess to what extent it is effective and cost-effective (Ferwerda, 2009, 2018; Ferwerda & Reuter, 2019; Masciandaro, 1999; Pol, 2018; Truman & Reuter, 2004; Unger et al., 2014). Effectiveness may be defined as the degree to which an intended objective is achieved. Measuring effectiveness of the AML policies is difficult because to identify the goals of these policies is not straightforward and to specify the scale of ML activities in their absence is impossible (Ferwerda, 2018; Sharman, 2008).

Most take for granted the positive welfare impact of the global AML regime (Levi et al., 2018). Actually, research pointed out several shortcomings concerning the global AML regime, which include its limited effectiveness in preventing serious profit-oriented crimes (Chaikin, 2009; Ferwerda, 2018; Halliday et al., 2020; Pol, 2018; Unger et al., 2014), its potential unintended consequences as XXXX OR (e.g., XXX) (Cochrane, 2014; Gaigné & Zenou, 2015), and the severe costs imposed on obliged entities (Harvey & Lau, 2008).

Despite the vivid interest in the AML regime, to the best of our knowledge, the attention devoted to assessing the effectiveness of the STRs has been minimal. Chaikin (2009) reviewed statistics on the STRs system in Switzerland; he finds that the system is questionable given the likely underreporting of suspicious transactions, especially considering the size of Switzerland's offshore private wealth management sector, but efficient in terms of quality of input of STRs and of amounts of money that are automatically frozen under the mandatory reporting obligation. Dalla Pellegrina et al. (2020) investigated the relationship between STRs and the vulnerability of Italian provinces to ML from 2009 to 2013; their findings are that an increase of 1% in the number of STRs per million euros of GDP (which is about 3.6 STRs) decreases the number of police reports of ML cases by 0.31% (which is about 0.2 police reports). In this sense, STRs appear to deter money laundering. On the other side, Dalla Pellegrina et al. (2020) also provided evidence that overreporting by the obliged entities may slow down the screening process at the FIU.

The richness of information contained in STRs has also attracted the attention of scholars interested in empirical research on ML per se as well as on illicit financial flows. Already at the end of the 20th century, Van Duyne and De Miranda (1999) analyzed all the 9,580 suspicious financial transactions reported to the Dutch FIU from 1994 to 1996 and observed that 179 individuals were mentioned in as much as 89% of all the STRs. Cassetta et al. (2014) developed a gravity model to identify those countries interested by anomalous cross-border bank transfers from and to Italy as

emerging from AML/Combating the Financing of Terrorism (CFT) aggregate reports. Gara and De Franceschis (2015) also used aggregate data from Italian STRs to assess the share of cross-border bank transfers outflowing from Italy to ML risky jurisdictions. Ardizzi et al. (2016) used the same data source to analyze cash payment anomalies across Italian municipalities and to explore their correlation with contextual factors (e.g., presence of organized crime). Riccardi et al. (2019) used Italian STRs data to validate a composite indicator of ML risk across Italian provinces. Gara et al. (2019) analyzed 112,674 STRs filed by banks to the Italian FIU in 2012 and 2013 to investigate the effect of AML inspection on banks' reporting of suspicious transactions. Finally, Ferwerda et al. (2020) used data from STRs received by the Dutch FIU to validate a gravity model used to identify possible origin and destinations of ML/Terrorism Financing inflows and outflows.

Overall, the review of the literature indicates that, despite the centrality of STRs in the global AML strategies and their growing use for research purposes, only few studies have examined the actual contribution of STRs to AML purposes (Ferwerda & Reuter, 2019; Gara & Pauselli, 2015; Levi et al., 2018; Masciandaro, 1999; Truman & Reuter, 2004; Unger et al., 2014). There has been minimal attention to evaluate to what extent do STRs actually represent ML and support law enforcement investigations (Chaikin, 2009; dalla Pellegrina et al., 2020). In other words, it remains unclear to what extent STRs identify illegal behaviors and which types of behaviors.

Data and methods

The current study triangulates and consolidates administrative data on STRs in Italy and provides an exploratory analysis of the emerging statistics. In so doing, the study focuses on 1) the trends in the number of issued and analyzed STRs, 2) the share of newly analyzed STRs that contributed to ongoing and new police investigations, 3) the offences signaled by the STRs.

The data used in the present analysis stem from three data sources: 1) The annual reports on the activities of the Italian FIU over the period 2009-2020; 2) The annual relations of the Italian Financial Security Committee (*Comitato di Sicurezza Finanziaria*)[1] to the Parliament on the functioning of the national AML/CFT system over the period 2009-2020; 3) The latest available (i.e., 2016) Italian Mutual Evaluation Report by FATF, which covers the years 2010-2014. All exploited data are publicly available and retrievable from the institutional websites of the Italian FIU (UIF), the Italian Financial Security Committee (CSF) and the FATF.

[1] The Italian Financial Security Committee is also responsible for carrying out the ML and TF risk Assessment (NRA). The last available risk assessment is available at: https://www.dt.mef.gov.it/en/pubblicazioni/analisi_nazionale_rischi_riciclaggio/

As whole, these sources allow us to trace the main steps of STRs within the AML institutional setting. Indeed, obliged entities transfer their STRs to the Italian FIU, which conducts a first round of analyses of the STRs and enrich them with further information and preliminary analyses. Then, the FIU transfers the STRs to the two designated investigative bodies under the Italian AML legislation which are the Italian Economic Crime Police (*Guardia di Finanza*) and the Anti-Mafia Investigative Directorate (*Direzione Investigativa Antimafia or DIA*) (Figure 1). The Italian Economic Crime Police (*Guardia di Finanza*) is a body with military status placed under the direct authority of the Italian Ministry of the Economy and Finance. It is responsible for dealing, among others, with money laundering, corruption and tax evasion as well as having AML/CFT supervisory responsibilities regarding bureau de change, payment institutions' agents and designated non-financial businesses and professions (DNFBPs). The Anti-Mafia Investigative Directorate is vested with special investigative powers to fight organized crime and specifically Mafia-type organizations. It is a special inter-force investigative body with personnel from the State Police, Carabinieri and Guardia di Finanza with experience in financial investigations and organized crime investigations.

Figure 1. Simplified STRs flow process in the Italian anti-money laundering system

Indeed, the reports on the activities by the Italian FIU provide administrative data on the total amount of STRs filed by Italian obliged entities and additional information (e.g., STRs by category of intermediary, by region, by province). The relations of the Italian Financial Security Committee to the Parliament illustrate, among other data, the investigative activities of the Italian Economic Crime Police and of the Anti-Mafia Investigative Direction. The relations present the data throughout the years and detail the share of filed STRs that have been further investigated as well as their investigative and judicial outcomes. Finally, the 2016 Italy Mutual Evaluation Report by FATF provides information on the number of criminal investigations by the Italian Economic Crime Police started thanks to the STRs as well as other administrative data on the number of individuals arrested and convicted for ML per year.

The mentioned sources allow us to collect data on all the STRs issued in Italy over the period 2009–2020; the Italian FIU has been operating since 2008 (d.lgs. 231/2007) (see Gara et al., 2019).[2] Available reports on the functioning of the national AML/CFT regime by the Financial Security Committee, which cover the period 2002-2008, as well as the annual relations of the Bank of Italy on the same period have not been included in the present analysis. Excluding these older reports is a strategy to reduce discrepancies in criteria for collecting and classifying STRs.

Italy is a suitable case study for several reasons: (a) Italy is an advanced economy in the EU which is exposed to significant ML risks due to the relevant role of organized crime in the country, in particular mafias, the high level of underground economy, and the widespread use of cash (Levi, 2016); (b) Italy has a long history of tracing crime money as it was the first country worldwide to criminalize ML back in 1978 to support policing against mafias and the far-left Marxist-Leninist armed organization *Brigate Rosse* (van Duyne & Levi, 2005); (c) nowadays, Italy has a sophisticated AML/CFT regime (Riccardi et al., 2019).

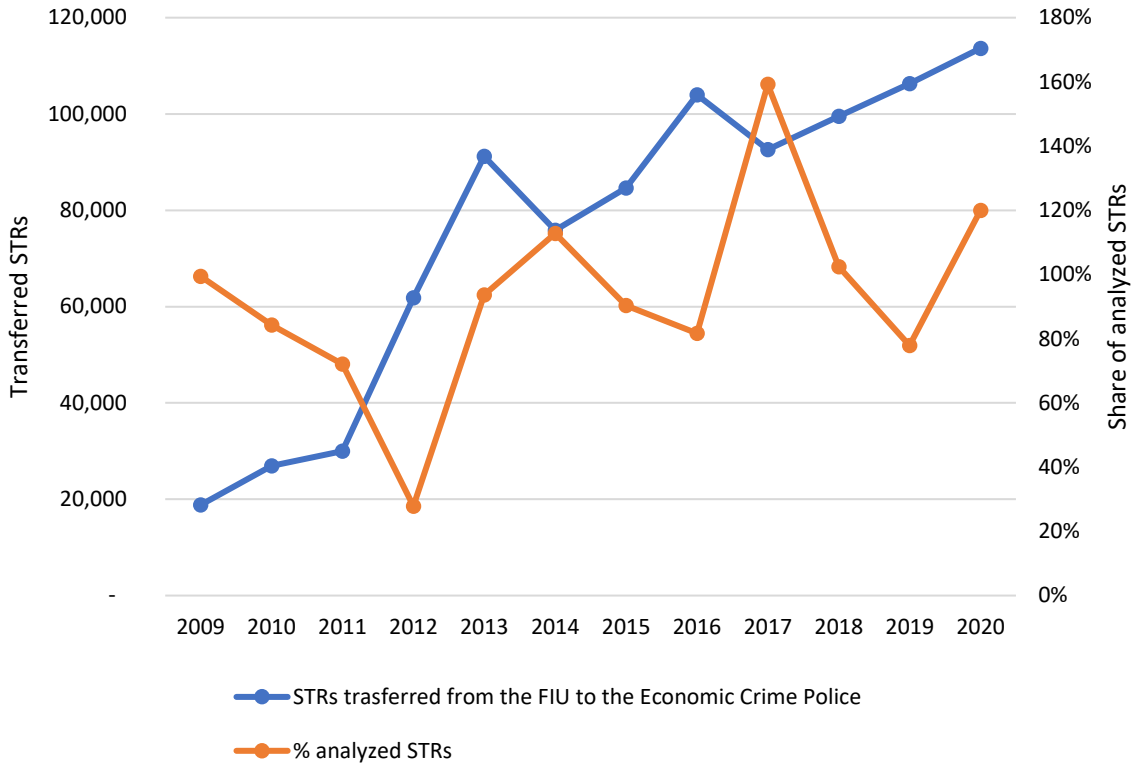
Results

The number of STRs filed by obliged entities in Italy increased considerably over the years. In 2009, the Italian FIU analyzed, enriched, and transferred 18,823 STRs to the investigative bodies: the Italian Economic Crime Police and the Italian Anti-Mafia Investigative Directorate. In 2020, the number of transferred STRs was 113,643, corresponding to a 504% increase in a decade. Overall, between 2009 and 2020, obliged entities filed 905,453 STRs to the Italian FIU.

Between 2009 and 2020, the number of STRs analyzed by the Economic Crime Police increased by 633% from 18,714 in 2009 to 137,212 in 2020. Overall, the Economic Crime Police analyzed 882,185 STRs, which corresponds to more than 97% of the STRs it received. However, the share of STRs analyzed each year fluctuates: from 27.9% in 2012 to 112.8% in 2014, 156.8% in 2017, 103.9% in 2018 and 120.7% in 2020, years during which the Economic Crime Police scrutinized more than the STRs it received by also addressing the piling stock of STRs received in the previous years and not analyzed (Figure 2).

Figure 2. STRs and share of analyzed STRs (2009-2020, Italy)

[2] Before 2008, the STRs were analyzed by a different entity, the *Ufficio Italiano dei Cambi* (the Italian Bureau de Change) which was suppressed following the new Italian anti-money laundering legislation 231/2007.



Overall, almost half (47.6%) of the STRs analyzed by the Economic Crime Police turned out to be irrelevant from an investigative point of view and were archived in a pre-investigation phase. The remaining 52.4% of STRs were either further analyzed for AML purposes by special units of the Economic Crime Police (31.3%, 233,059 STRs) or, since 2014, signaled to competent territorial units (21.1%, 157,484 STRs). STRs signaled to competent territorial units do not provide significant elements in the field of ML or TF; nonetheless, they might be of interest from the tax profile or for other institutional purposes.

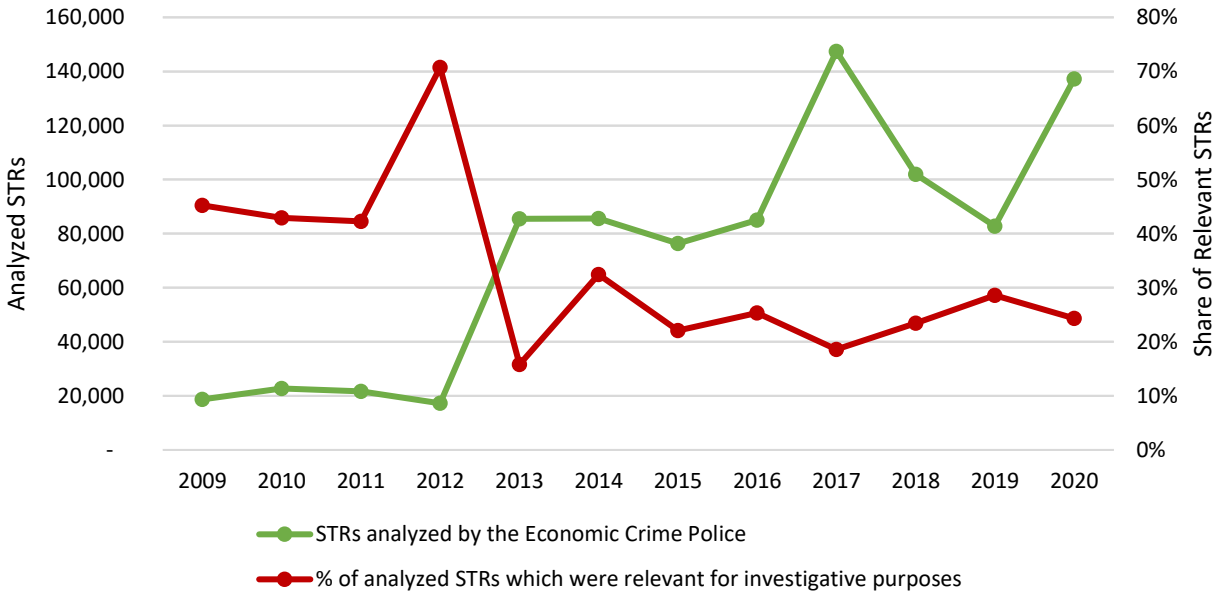
At the time of writing, the special units of the Economic Crime Police had concluded its AML investigations for 194,206 (83%) of these 233,059 STRs and had obtained 197,361 investigative outcomes. The discrepancy between the number of investigated STRs (194,206) and the number of investigative outcomes (197,361) exist because each STR may produce multiple investigative outcomes. For example, at first, an STRs may result in a new criminal process and, later, the judicial authority may also require accessing the information about the reporting obliged entity to assess the potential connections of the underlying offences with other on-going criminal procedures. Indeed, information about reporting obliged entities of an STR are not disclosed with the judicial authorities and they are not included in the documents related to the criminal process under the Italian AML legislation, if not requested by the judicial authority itself with a motivated request.

Out of these 197,361 investigative outcomes, 118,551 (60.1%) were of no interest to the judicial authority; 47,505 (24.1%) supported an ongoing criminal investigation; 15,594 (7.9%) were acquired by the judicial authorities which requested the identity of the reporting obliged entity to be disclosed; 7,346 (3.7%) concerned administrative violations (e.g., direct transfers between two individuals of an amount of cash above 1,000€); while 7,712 (3.9%) led to new criminal proceedings.

Therefore, the ratio between the number of investigative outcomes which are useful for ongoing investigation (47,505) and all STRs analyzed by the Economic Crime Police (882,185) is 0.054. The overall ratio between new criminal proceedings (8,979) and STRs analyzed by the Economic Crime Police (882,185) is 0.010. Clearly, the ratio between new criminal proceedings (8,979) and STRs transferred by the Italian FIU to the investigative bodies (905,474) is even lower; on average, an information useful to activate new criminal proceedings emerges about every 100 STRs initially analyzed by the Italian FIU. This number is down to 16 when considering both ongoing and new proceedings.

The share of STRs supporting investigative efforts presents important year-by-year variations and these variations seem to be related to the overall number of issued STRs. For instance, in 2012, the special units of the Economic Crime Police analyzed 17,245 STRs—less than in any other considered year—and judged 71% of them to be relevant from an investigative point of view. On the contrary, in 2017, analyses interested 147,436 STRs—the largest number in the years 2009-2020. In 2017, the share of manifestly relevant ones was as low as 19% (Figure 3). Unfortunately, the numerosity of the datapoints impedes more formal statistical investigations of this relation.

Figure 3. Relevant STRs out of all analyzed STRs (2009-2020, Italy)



The trend in the number of individuals reported for ML also suggests a negative relation between the number of issued STRs and their accuracy or the capacity of institutions to extract relevant information from them. Overall, 20,449 individuals were reported to the judicial authority for ML over the years 2009-2020. Individuals reported for ML and self-ML were 1,161 in 2009 and became 2300 in 2020 with a 98%-increase over the period. This increase is large, but it does match neither the growth in the number of STRs analyzed by the FIU (+504%) nor by the Economic Crime Police (+633%). From 2009 to 2020, the ratio between individuals reported for ML and self-ML and STRs analyzed by the FIU decreased from 0.06 to 0.02.

Data on the share of ML investigations which started thanks to STRs are available for the years 2010-2014. These data indicate that, out of the total of ML investigations, only a minoritarian fraction starts thanks to the information provided by STRs: 15%. Data also show a decrease in both the count and the share of investigations which started thanks to STRs from 143 (about 30%) in 2010 to 66 (about 9%) in 2014 (-54%). Conversely, over the same years, the total number of ML investigations carried out by the Economic Crime Police increased from 477 in 2010 to 736 in 2014 (+53%). Finally, the FATF's evaluation report provides information on the type of new criminal proceedings stemming from STRs as well as FIU's technical notes. In the years 2010-2014, 451 (10.5%) involved criminal charges for ML, while 722 (16.8%) regarded forms of non-compliance with AML/CFT laws. The remaining 72.8%of cases involved other offences such as frauds, tax crimes, loansharking, mafia offences, offences against the public administration.

Contrary to the Italian Economic Crime Police, the Italian Anti-Mafia Investigative Directorate uses a massive screening process for STRs and manages to analyze all the STRs that it receives from the Italian FIU each year. These screening processes are centered on historical-archival research with the aim of detecting subjects with specific precedents and/or under investigation, or known for being connected to organized crime groups. Further steps of analysis are then conducted to analyze the phenomenon of mafia infiltration of the legal economy and to classify the STRs on the base of the riskiness of the underlying transactions.

Overall in the period 2015-2020, for which data are available, the Anti-Mafia Investigative Directorate received and analyzed about 600 thousand STRs. From the preliminary investigation phase conducted on the entire document flow transmitted by the FIU, almost 165,000 STRs (about 27%) were referred to profiles connected to organized crime. Among these about 18% (5.0% of the total) were related to subjects with specific precedents or subjected to investigations for mafia-type association or linked to organized crime; 10% (2.7% of the total) were connected to STRs previously signed as relevant for anti-organized crime purposes. Finally, 5% of the positive STRs, corresponding

to the 1.3% of all analyzed STRs were found to be connected, for at least one position, to a criminal or prevention proceeding present in the databases of the Anti-mafia National Directorate.

Discussion and conclusions

Over the considered period, STRs resulted effective in supporting AML investigations. On average, one relevant information for investigative purposes emerged every 16 STRs analyzed by the FIU. STRs provides more often support to ongoing investigations than to new investigations and to the apprehension of newly identified individuals. On average a relevant information for ongoing proceedings emerges every 19 STRs that were signaled for AML purposes and analyzed by the FIU. On average, information that leads to new criminal proceedings emerge from a STRs every 100.

The discrepancy in the contribution to ongoing vs. new investigation is likely because, in the case of ongoing investigations, the identity of subjects under investigation might directly trigger the signaling of a transaction by obliged entities. This signal is missing in the case that no investigation is ongoing. Statistics on the use of STRs for contrasting mafia-type organized crime seem to confirm this. Indeed, also in the case of organized crime investigations, STRs predominantly provide information on subjects who had been already signaled to be connected to criminal organizations.

Related to this, only 16% of all ML investigations conducted by the Economic Crime Police started thanks to STRs. Moreover, criminal investigations started thanks to STRs decreased from about 30% in 2010 to about 9% in 2015. These statistics together suggest that data sources and investigative activities other than STRs play a more relevant role in driving the number of investigations in the AML domain.

Despite indicating STRs are effective, results tentatively support the ‘crying wolf’ argument raised by several scholars (e.g., Gara & Pauselli, 2015; Takáts, 2007). STRs filed by obliged entities to the Italian FIU increased by 465% over a decade. Over the same period, also the number of individuals reported to the judicial authority for ML increased, but at a lower rate: 98%. Although the limited numerosity of available data points does not allow for statistically tests any of these associations, result suggest an overall decrease of accuracy in the STRs filed by obliged entities over the years and in parallel with their increase in numerosity. In this sense, due to the threats of potential sanctions and fines in case of non-reporting, obliged entities may be prone to report as much suspicious behaviors as possible thus limiting the overall quality of the actual STRs filed. An alternative explanation might be in the incapacity of resources available to investigative bodies to keep the path with the rapid growth in the number of STRs. It is difficult to imagine that the human

and technological forces and capabilities of the Economic Crimes Police can grow almost 50% per year thus matching the increase in STRs.

Data included in the present analysis do not allow to evaluate efficiency of the STRs reporting system. What is known is that, in 2020, a human resources full time equivalent was able to analyze 775 STRs, which means that almost all the personnel of the Italian FIU was devoted to the analyses of the STRs. The Economic Crime Police and the Anti-Mafia Investigative Directorate then conducted further analyses; before, obliged entities had worked at the production of the initial STRs. In light of this and consistent with the attention already given to the compliance costs that obliged entities must bear (Harvey, 2004; Masciandaro & Filotto, 2001), future research should investigate this issue also when it comes to the supervisory and law enforcement authorities.

Finally, results also suggest that scholars should be careful in using STRs data for research purposes. In addition to the inherent limitation of being suspicious and not evidence, STRs also seem to identify ML behaviors only partially. Most of the new criminal proceedings initiated due to the evidence included in the STRs (87.6%) relates to other crimes. Therefore, patterns emerging from studies employing this type of data should be interpreted carefully.

The present study suffers of several limitations that need to be considered in interpreting its results. The first limitation refers to case selection. The analysis only focuses on Italy, thus raising the question to what extent results can be generalized. Specificities of the country, such as the outsized role of organized criminal groups, may affect the results. However, it should be noted that the choice of focusing on a single country is necessary due to the acknowledged impossibility to fully compare data on STRs across countries given, among other factors, the discrepancies in terms of type and nature of the information included and criteria for interpretation and reporting.

Indeed, despite international pressure to homogenize tools to be used to counter money laundering and terrorism financing, different countries still produce and use distinct types of STRs. Most countries use STRs which refers to individual or limited batches of transactions or clients, but there are also countries that rely almost exclusively on Unusual Transaction Reports (UTRs), which relates to unusual transactions not yet suspicious (e.g., Austria, Poland, Slovenia). Additionally, a country may simultaneously use multiple types of STRs. For instance, in Italy obliged entities must file to the FIU both STRs and aggregate reports, which summarize the overall activity of obliged entities' clients in a certain period (e.g., a month).

The information to be included in the STR varies depending on the country too. The names and identifiers of the issuers, the names and identifiers of the beneficiaries, the economic value involved

in the transactions, the country of residence and/or nationality of the issuer, the country of residence and/or nationality of the beneficiary, the location of the banks, the relevant time period, the nature of operations (e.g., withdrawal, bank transfer, loan, etc.), together with supplementary descriptions and information in open fields (e.g., description of the scheme and of the suspicion) are usually reported in STRs. Nonetheless, differences remain across countries in terms of what STRs include and how and with which frequency they should be sent to the competent authorities. The differences in types, criteria for interpretation and reporting, nature of the information included and of the indicators to be considered are relevant, up to the point of limiting the comparability of STRs across countries. For example, in the Germany Mutual Evaluation Report (MER) from the third round, country officials recognized that the national STRs were not comparable with those from other countries due to different reporting thresholds used by obliged entities for filing them to the national FIUs (Levi et al., 2018).

In addition, the current study only focused on aggregate data at a national level and on a limited time series, thus limiting potential conclusions. Future research should aim at employing more granular data (e.g., regional level, by type of obliged entity). In particular, while were able to support our hypothesis with descriptive statistics in a first explorative study, the collection of more data would allow for testing those hypotheses in a more robust manner.

Finally, the analysis suffers of some slight inconsistency in the figures provided by the different institutions. For instance, with respect to 2013, and annual reports on the activities of the Italian FIU signals 92,415 STRs, while the corresponding annual relation of the Italian Financial Security Committee registers 91,245 STRs. In case of discrepancies in the figures, we relied on the data provided by the relations of the Italian Financial Security Committee; in any case, such minor discrepancies do not introduce major changes in the overall assessment.

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