



Institute for Management & Innovation
UNIVERSITY OF TORONTO
MISSISSAUGA

MFAcc | Master of
Forensic Accounting

**THE ROLE OF INVESTIGATIVE FORENSIC
ACCOUNTANTS WITHIN LAW ENFORCEMENT
AGENCIES**

Research Project for Emerging Issues/Advanced Topics Course

Master of Forensic Accounting Program University of Toronto

Prepared by Georgios Kriketos #1008658285

June 5, 2023

For Prof. Leonard Brooks

Table of Contents

[1] INTRODUCTION, METHODOLOGY & BACKGROUND	1
1.1 Methodology	1
1.2 Background.....	4
<i>1.2.1 Law Enforcement Agencies.....</i>	<i>4</i>
<i>1.2.2 Forensic Accounting in the context of Law Enforcement</i>	<i>4</i>
<i>1.2.3 IFAs & Criminal Investigations: A General Overview.....</i>	<i>8</i>
<i>1.2.4 Skillset and Characteristics of IFAs.....</i>	<i>9</i>
<i>1.2.5 IFAs within Law Enforcement Agencies: Role Overview.....</i>	<i>13</i>
[2] FORENSIC ACCOUNTANTS AND CRIMINAL INVESTIGATIONS.....	16
2.1 Financial Investigation: Definition and Overview	17
<i>2.1.1 Financial Investigation: Phases.....</i>	<i>18</i>
<i>2.1.2 Financial Investigation: Forensic Accounting Techniques.....</i>	<i>21</i>
2.2 Forensic Accountants and Organized Crime Investigations	25
2.3 Forensic Accountants and Illicit Trafficking Investigations.....	30
2.4 Forensic Accountants and Cybercrime Investigations.....	34
2.5 Forensic Accountants and Terrorism Investigations.....	36
2.6 Forensic Accountants and Financial Crime Investigations	39
2.7 Forensic Accountants and Other Crimes	42
[3] LIMITATIONS AND CHALLENGES ASSOCIATED WITH THE ROLE OF FORENSIC ACCOUNTANTS WITHIN LAW ENFORCEMENT AGENCIES.	43

3.1 Standard Practices for IFA Engagements Handbook Overview (Canada)	44
<i>3.1.1 Sections of Interest: Associated Challenges & Limitations</i>	45
3.2 Evolution of Crime & Criminal Practices: Associated Challenges & Limitations	51
3.3 Other Challenges & Limitations associated with an IFA’s Investigative Work	58
3.4 Recommendations	62
<i>3.4.1 Recommendations for Law Enforcement Agencies</i>	63
<i>3.4.2 Recommendations for LEA-embedded Forensic Accountants</i>	65
[4] LAW ENFORCEMENT-EMBEDDED VS EXTERNAL FORENSIC ACCOUNTANTS	67
4.1 Commentary on recent RMCP decision	67
4.2 Advantages associated with the use of LEA-embedded IFAs	72
4.3 Arguments against the use of LEA-embedded IFAs	76
[5] CONCLUSION	77
APPENDIX 1	81
REFERENCES	87

[1] INTRODUCTION, METHODOLOGY & BACKGROUND

The increased use of the internet and sophisticated criminal techniques to acquire money and material assets across international borders through the means of organized crime has resulted in a significant need for Law Enforcement intervention. The need for police services to have Investigative Forensic Accountants (“IFAs”) serving as police members in specialized units is rapidly increasing. IFAs attribute great value to Law Enforcement Agencies (“LEA”) in enforcing the law, asset forfeiture and in prosecuting perpetrators of crime. The direct involvement of an IFA in a criminal investigation from an investigative perspective can lead to the discovery of additional layers of criminality and create new avenues for the prosecution of threat actors. This is possible through the application of investigative excellence an IFA possesses and their ability to produce evidence through financial investigation and analysis of financial documents. In addition to the above, the perspective contrary to the inclusion of IFAs in Law Enforcement investigations will be considered and discussed. IFAs generally have a significant amount of education amongst other skills and credentials which will be discussed in this research assignment. In conclusion, and as demonstrated throughout this paper, the skills and education an IFA possesses are transferable to any LEA in the world and the inclusion of IFAs in criminal investigations is deemed as necessary across LEAs on a global level, including in Canada.

1.1 Methodology

To assess the impact of IFAs within Law Enforcement, this study shall examine the advantages an IFA’s skillset and expertise attribute to criminal investigations using

the following five broad crime areas as outlined in INTERPOL’s “2022 INTERPOL GLOBAL CRIME TREND SUMMARY REPORT” report as a framework:

- *Organized Crime;*
- *Illicit Trafficking;*
- *Financial Crime;*
- *Cybercrime; and*
- *Terrorism.*¹

Each of these five broad crime areas will be defined, and individually examined in order to conduct an analysis of the potential role of an Investigating Forensic Accountant (“IFA”) as a member of a Law Enforcement Agency (“LEA”). Through the examination of academic research and journals, published reports of law enforcement agencies and other online materials, this study shall analyse the applicable skills of IFAs, as well as, list examples of potentially effective forensic accounting techniques within the context of specific criminal investigations.

The next focus of this study revolves around limitations associated with an IFA’s scope of work when serving as a member of Law Enforcement. The identification and review of limitations and challenges shall be distinguished into the three following categories and their respective components:

1. Function-specific limitations and challenges associated with LEA-embedded IFAs in Canada. Under this subsection, the Standard Practices for IFA

¹ Our analysis reports. (n.d.). <https://www.interpol.int/en/How-we-work/Criminal-intelligence-analysis2/Our-analysis-reports>

Engagements Handbook will be used as a referral point by reviewing sections of interest and associated potential issues and limitations.

2. Adopted criminal practices relevant to an LEA-embedded IFA's role as a financial investigator that pose challenges to their ability to conduct a successful financial investigation.
3. Other challenges and limitations associated with the work of LEA-embedded IFAs.

Following the above analysis, recommendations associated with the mitigation of the identified challenges and limitations will be given to both IFAs and LEAs.

In its final section, this study will focus its attention on the recent RCMP decision to shut down their dedicated financial crime unit in Toronto. Potential repercussions of the decision will be discussed by leveraging arguments of previous analyses, as well as, by reviewing statements of high-ranking officials before reaching a conclusion regarding the potential impact of the decision on economic crime activity in Canada. Lastly, a series of advantages associated with the potential use of LEA-embedded IFAs, as well as, arguments against their embedment in Law Enforcement based on previous discussions will be discussed.

Through the exploration of the above topics, this study aims to define the role of IFAs as criminal investigators when operating as members of Law Enforcement, offer a basis for evaluating their potential effectiveness across different crime areas and identify advantages associated with their integration in Law Enforcement.

1.2 Background

In order to evaluate the impact of IFAs' direct involvement in criminal investigations as members of Law Enforcement, essential background information must first be provided so that the reader can be familiarized with general concepts relevant to this study.

1.2.1 Law Enforcement Agencies

Law Enforcement Agencies (LEAs) exist at many levels (local, state, federal/national, international) and their focus can vary depending on their mandate. The U.S. Justice System and its various specialized LEAs – Drug Enforcement Administration (DEA), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), U.S. Immigration and Customs Enforcement (ICE) to name a few – demonstrate how the goals of each LEA can greatly vary as each one of these agencies focuses on different areas of crime. Nevertheless, regardless of their area of focus, all LEAs serve the same fundamental purpose: to uphold the law, maintain public order, and manage public safety. Their principal responsibilities include policing, as well as the investigation, apprehension, and detention of suspected offenders.²

1.2.2 Forensic Accounting in the context of Law Enforcement

The term Forensic Accounting and the demand for its practitioners have significantly risen in popularity during the 21st century as a response to closer scrutiny of companies' financial activities by shareholders and government agencies.³

² Bureau of Justice Statistics. (2021). Law Enforcement. Bureau of Justice Statistics. <https://bjs.ojp.gov/topics/law-enforcement>

³ Kahan, S. (2006). Sherlock Holmes enters accounting: Dramatic increase in fraud brings more CPA sleuths into the industry. *Accounting Today*, 20(8), 1–1.

Stemming from this surge in its popularity, many researchers, academics, and institutes have taken an interest in the field with numerous papers and studies being published as a means to provide a deeper understanding as well as encourage further development of the field of Forensic Accounting. These publications have examined the different applications of Forensic Accounting and have provided various definitions to the term. The two examples that follow help demonstrate the significant variation between available definitions:

As per “The Encyclopedia of Forensic Sciences”, **Forensic Accounting** is defined as:

“The use of intelligence-gathering techniques and accounting/business skills to develop information and opinion for use by attorneys involved in civil litigation and/or criminal proceedings and give trial testimony if called upon; the action of identifying, recording, settling, extracting, sorting, reporting, and verifying past financial data or other accounting activities for settling current or prospective legal disputes or using such past financial data for projecting future financial data to settle legal disputes.”⁴

As per the “FINANCIAL FORENSICS ACADEMY™”, **Forensic Accounting** is defined as:

“The art & science of investigating people & money”⁵

⁴ Siegel, J. A., Saukko, P. J., & Houck, M. M. (2013). Encyclopedia of forensic sciences (p. 424). Elsevier, Academic Press.

⁵ What Is Forensic Accounting - Financial Forensics Academy. (n.d.). <http://www.financialforensicsacademy.com/WhatIs/>

While the definition taken from the Encyclopedia of Forensic Sciences can be considered fairly accurate, it is quite narrow to convey the full spectrum of actions taken by forensic accountants relevant to their assignment's needs. On the other hand, the definition taken from Financial Forensics Academy's website offers a quite broad, yet also accurate, interpretation of Forensic Accounting but little detail as to what it entails.

From the above largely different definitions, it becomes apparent that Forensic Accounting as a vocation can be interpreted in a variety of different ways depending on the specialty of the practitioner as their unique expertise can be applied to an array of diverse assignments (DiGabriele, 2009).⁶ Ranging from commercial disputes and loss quantification to investigating financial fraud, a forensic accountant can engage in considerably different assignments and provide various personal definitions to their profession depending on their practice's focus. This study isolates and examines the area of Forensic Accounting that is concerned with the detection and investigation of criminal activities.

When examined under this perspective, Forensic Accounting can be defined as the **financial investigation** of suspected criminal activities by designated experts (i.e. IFAs) through thorough analysis of both financial and non-financial information (subject to availability and right of access) in efforts to:

- determine the size of criminal networks and/or the level of illegal activity;
- locate and track the proceeds of crime, terrorist funds or any other assets that are, or may be susceptible to seizure; and

⁶ DiGabriele, J. A. (2009). Fishbowl: the Forensic Accountant: A closer look at the skills Forensic Accounting education should emphasize. *Forensic Examiner*, 18(2), 77–79.

- develop evidence that can be utilized in court.⁷

Examples of financial information include:

- *Bank and credit card account records (statements & transaction records)*
- *Bank cheques*
- *Payroll disbursements*
- *Expense reports*
- *Purchase orders & invoices*
- *Receipts*
- *Inventory records*
- *Financial statements*
- *Tax records*⁸

Examples of non-financial information include:

- *E-mail accounts*
- *Text messages & phone logs*
- *Personal electronic devices*
- *Vendor files*
- *Personnel records*
- *Passport activity*

⁷ financial investigation Definition. (n.d.). Law Insider.

<https://www.lawinsider.com/dictionary/financial-investigation>

⁸ Siegel, J. A., Saukko, P. J., & Houck, M. M. (2013). Encyclopedia of forensic sciences (p. 427). Elsevier, Academic Press.

- *Video surveillance tapes*⁹

1.2.3 IFAs & Criminal Investigations: A General Overview

IFAs possess the necessary accounting knowledge and expertise to discover and forensically investigate complex financial information pertaining to their assignment with a view to discover potential indicators of wrongdoing, often referred to as “red flags”. In the recently published report “Virtual Assets: Red Flag Indicators of Money Laundering and Terrorist Financing” produced by the Financial Action Task Force (FATF)¹⁰, red flag indicators are divided into the following different categories:

- *related to transactions*
- *related to transaction patterns*
- *related to anonymity*
- *about senders or recipients of virtual assets*
- *in the source of funds or wealth*
- *related to geographical risks*¹¹

While FATF’s report focuses on Money Laundering and Terrorist Financing, it can serve as an example of the wide range of indicators IFAs are equipped to identify when conducting a financial investigation of a suspected crime. This is achieved through the reconstruction and analysis of flows of funds associated with a person or

⁹ Ibid., 8.

¹⁰ The Financial Action Task Force (FATF) is the global money laundering and terrorist financing watchdog. It sets international standards that aim to prevent these illegal activities and the harm they cause to society. More information available at <https://www.fatf-gafi.org/en/home.html>

¹¹ Virtual Assets Red Flag Indicators of Money Laundering and Terrorist Financing. (2020). Wwww.fatf-Gafi.org. <https://www.fatf-gafi.org/en/publications/Methodsand Trends/Virtual-assets-red-flag-indicators.html>

entity of interest. Initial analysis and recognition of such indicators can fuel further investigation focused on the identified potential issues and lead to the discovery of court appropriate evidence.

The examination of non-financial related information serves as a supplementary source of information with a dual purpose: (i) to support findings of an IFA's analysis of financial data by associating them with relevant evidence, such as texts, emails, call logs, etc. that provide additional context to a suspicious transaction, and (ii) to facilitate the discovery of new evidence with the use of relevant non-financial information; for example, information regarding the whereabouts of a suspect at a specific point in time through video surveillance tapes can help the IFA identify new potential sources of information, expand their investigation to new territories or focus their attention around specific events on the timeline.

1.2.4 Skillset and Characteristics of IFAs

As previously mentioned, the field of Forensic Accounting has seen particular growth during the 21st century with many studies focusing on its applications but also the skillset and characteristics of its practitioners.

One of the most prevalent and widely referenced studies as to the relevant skills of forensic accountants is the empirical investigation conducted by A. DiGabriele (2008) through which he was able to expand on the findings of previous studies regarding this subject and succeeded in identifying the following nine (9) competencies:

1. *Deductive analysis ability*
2. *Critical thinking*
3. *Unstructured problem solving competence*

4. *Investigative flexibility*
5. *Analytical proficiency*
6. *Oral communication ability*
7. *Written communication ability*
8. *Specific legal knowledge*
9. *Composure*¹²

The American Institute of Certified Public Accountants (AICPA), was able to build up on the ideas presented by previous researchers (including DiGabriele’s empirical investigation) and provide a richer, in detail, list of the skills and characteristics typically possessed by forensic accountants in their published handbook “Characteristics and Skills of the Forensic Accountant”¹³. Through their extended survey, the AICPA divided the skillset and characteristics of IFAs into the following three (3) distinct categories:

- 1. Essential Traits and Characteristics**
- 2. Core Skills**
- 3. Enhanced Skills**

Each of the following categories encompasses a range of different traits, skills, and characteristics which are depicted in the table below and provide an important point of reference for subsequent discussions within this study. AICPA’s study offers support to the discussion made under subsection **1.2.2 (Forensic Accounting in the context**

¹² DiGabriele, J. A. (2008). An Empirical Investigation of the Relevant Skills of Forensic Accountants. *Journal of Education for Business*, 83(6), 331–338.
<https://doi.org/10.3200/joeb.83.6.331-338>

¹³ Davis, C., Farrell, R., & Ogilby, S. (n.d.). Characteristics and Skills of the Forensic Accountant. <http://thefraudgroupllc.com/tools/library/documents/forensic.pdf>. AICPA.

Law Enforcement) regarding the function of a forensic accountant as an investigator as several of the identified skills and qualities possessed by IFAs match the qualities identified as necessary for effective investigation by Binns and Sachman in their book “**The Art of Investigation**” (matching qualities appear in bold in table below).¹⁴

Essential Traits and Characteristics	Core Skills	Enhanced Skills
<i>Analytical</i>	<i>Effective oral communicator</i>	<i>Analyze and interpret financial statements and information</i>
<i>Detail-oriented</i>	<i>Simplify the information</i>	<i>Testifying</i>
<i>Ethical</i>	<i>Critical/strategic thinker</i>	<i>Knowledge of relevant professional standards</i>
<i>Responsive</i>	<i>Identify key issues</i>	<i>Audit evidence</i>
<i>Insightful</i>	<i>Auditing skills</i>	<i>Fraud detection</i>
<i>Inquisitive</i>	<i>Investigative ability</i>	<i>Asset tracing</i>
<i>Intuitive</i>	<i>Effective written communicator</i>	<i>Electronic discovery</i>

¹⁴ Binns, C., & Sackman, B. (2020). *The Art of Investigation*. CRC Press, Taylor & Francis Group.

<i>Persistent</i>	<i>Synthesize results of discovery and analysis</i>	<i>General knowledge of rules of evidence and civil procedure</i>
<i>Skepticism</i>	<i>Think like the wrongdoer</i>	<i>Interviewing skills</i>
<i>Evaluative</i>	<i>Understand the goals of the case</i>	<i>Possess specialized technical skills</i>
<i>Function well under pressure</i>	<i>Tell the story</i>	<i>Internal controls</i>
<i>Generate new ideas and scenarios</i>	<i>See the big picture</i>	<i>Conflict negotiations and resolution</i>
<i>Confident</i>	<i>Organize an unstructured situation</i>	<i>Knowledge of law enforcement</i>
<i>Makes people feel at ease</i>	<i>Solve unstructured problems</i>	
<i>Team player</i>	<i>Research skills</i>	
<i>Adaptive</i>	<i>Solve structured problems</i>	

Table 1: IFA's Essential Traits and Characteristics, Core Skills, and Enhanced Skills¹⁵

¹⁵ Ibid., 13.

1.2.5 IFAs within Law Enforcement Agencies: Role Overview

Considering the focused definition of Forensic Accounting in the context of criminal investigations provided previously in this study, as well as, the skillset and characteristics of IFAs as outlined in the previous section, it becomes apparent that IFAs have the potential to become important assets for LEAs in their continuous battle against crime. Their core and enhanced skills, which are gained through education and past experience, can be intuitively recognized as vital to the conduction of a successful financial investigation of criminal activities and are supplemented by the presence of characteristics such as a high sense of ethos and innate skepticism. In recognition of the above, several LEAs have opted to incorporate IFAs as part of their personnel, primarily as financial crime investigators.

To provide a better understanding of an IFA's role and their core responsibilities within the context of Law Enforcement, two current role descriptions of Forensic Accountants operating within LEAs follow below:

Federal Bureau of Investigation (FBI):¹⁶

Position Title: "*Forensic Accountant (FoA)*"

Role Description: "*The Forensic Accountant (FoA) role is one of the most vital and sought-after careers in the Federal Bureau of Investigation (FBI). Forensic accountants use their accounting skills, auditing, and investigative techniques to*

¹⁶ The FBI is an intelligence-driven and threat-focused national security organization with both intelligence and law enforcement responsibilities. It is the principal investigative arm of the U.S. Department of Justice and a full member of the U.S. Intelligence Community. More information available at: <https://www.fbi.gov/>

research and follow the systems through which money may be funnelled or laundered by terrorists, spies, and criminals involved in financial wrongdoing.”¹⁷

FBI-employed “FoAs”:

- *Conduct thorough forensic financial analysis of business and personal records and develop financial profiles to understand the financial “big picture” of an investigation.*
- *Participate in the gathering of evidence and the preparation of search warrants/affidavits associated with financial analysis.*
- *Accompany Case Agents on interviews of subjects and key witnesses in secure and non-confrontational settings.*
- *Meet with prosecuting attorneys to discuss strategies and other litigation support functions and testify when needed as fact or expert witnesses in judicial proceedings.¹⁸*

Several roles of different seniority for Forensic Accountants are also available on the official **Australian Federal Police (AFP)**’s website. For the purposes of this study, the role of “*Senior Forensic Accountant – Band 8*” was selected as the primary example due to richer detail in the responsibilities of the role as compared to FBI’s career website.

¹⁷ Forensic Accountant. (2023). Federal Bureau of Investigation (FBI). https://fbijobs.gov/sites/default/files/2023-04/career_forensicaccountant.pdf

¹⁸ Ibid., 17.

Outlined possible responsibilities of a “*Senior Forensic Accountant – Band 8*”

include:

- *Provision of high level technical financial expertise to assist in the planning, coordination and conduct of financial investigations;*
- *Interpretation, analysis and summary of highly complex financial transactions and arrangements for the purpose of supporting criminal and civil proceedings;*
- *Competence in interpreting, analysing and presenting complex financial data, spreadsheets and reports using MS Office;*
- *Reporting of findings to internal and external clients including investigators, management, litigators and prosecutors;*
- *Preparation of work practices, reports and presentation of lay and expert evidence before the courts in compliance with professional accounting standards, specifically APES 215 and relevant judicial requirements;*
- *Independently undertake complex forensic accounting services;*
- *In consultation with National Coordinator Forensic Accounting and their relevant Team Leader/supervisor, oversight the work of Assistant Forensic Accountants and Forensic Accountants when required;*
- *Provide professional guidance and develop the professional capability of Assistant Forensic Accountants, Forensic Accountants and team members by fulfilling a consultative, mentoring and advisory role;*

- *Conducting peer review engagements to ensure standard of work adheres to professional accountancy standards;*
- *Assisting in the development and implementation of professional training programs; and*
- *Maintain currency in subject matter expertise through ongoing professional development in forensic accounting.*¹⁹

[2] FORENSIC ACCOUNTANTS AND CRIMINAL INVESTIGATIONS

The previous description of the term “Forensic Accounting” within the context of detection and investigation of criminal activities, as well as the expertise and skillset possessed by IFAs, paints a clear picture of their primary function within Law Enforcement as financial investigators. In addition to the above, IFAs’ identified traits, characteristics, and skills (core and enhanced) are indicative of their compatibility and ability to perform well in such roles. This notion is further supported by the two provided role descriptions of LEA-embedded Forensic Accountants as taken from official LEA websites, both of which list financial investigation as their primary responsibility.

Drawing from the above, a conclusion can be reached, that regardless of the nature of the investigated suspected criminal act, an IFA’s main focus is the discovery of evidence through the forensic investigation of the financial aspects related to it. This sets a common basis for the role of IFAs as investigators in a criminal context that

¹⁹ Forensic Accountants (Band 6 - 8) | AFP Jobs. (n.d.). Jobs.afp.gov.au.
<https://jobs.afp.gov.au/job-opportunities/details/forensic-accountants-band-6-8-6996>

attests to the universal applicability of their expertise and skillset. The next section will build on this conclusion by providing additional context as to what a financial investigation entails, including its potential uses and goals depending on the investigated broad crime area.

2.1 Financial Investigation: Definition and Overview

The European Commission defines Financial Investigations as “*enquiries into the financial matters related to a criminal activity, with a view to identify, analyse, and interpret the financial information relevant for criminal proceedings*”.²⁰

The above definition bears uncanny similarities with this study’s previous definition of Forensic Accounting within the context of Law Enforcement: “*Forensic Accounting can be defined as the **financial investigation** of suspected criminal activities by designated experts (IFAs) through thorough analysis of both financial and non-financial information (subject to availability and right of access) in efforts to:*

- *determine the size of criminal networks and/or the level of illegal activity;*
- *locate and track the proceeds of crime, terrorist funds or any other assets that are, or may be susceptible to seizure; and*
- *create evidence that can be utilised in court.*²¹”

²⁰ Financial investigations. (2022b, December 18). Migration and Home Affairs. https://home-affairs.ec.europa.eu/policies/internal-security/organised-crime-and-human-trafficking/financial-investigations_en

²¹ Ibid., 7.

In fact, many jurisdictions use the terms Financial Investigation and Forensic Accounting interchangeably.²² However, it is important to point out that not all financial investigators are forensic accountants. An in-depth review of the differences between the two is beyond the scope of this study, but in general terms the use of IFAs is advantageous where the financial activity is particularly complex, or especially where it involves analysis or judgement on corporate or business activity.²³

The argument for the inclusion of forensic accountants in financial investigations becomes even more compelling when considering the evolving nature of crime and the increasingly sophisticated, high-level independent criminals and criminal organizations LEAs come up against.^{24,25}

2.1.1 Financial Investigation: Phases

The Association of Law Enforcement Forensic Accountants (ALEFA) in their published “Trafficking in Human Beings (THB) Financial Investigation Handbook” have broken down the financial investigation of human trafficking in the following five (5) distinct phases and corresponding elements:

²² Trafficking in Human Beings (THB) Financial Investigation Handbook. (2018). Association of Law Enforcement Forensic Accountants (ALEFA).

Available via download on <http://www.alefa.eu/>

²³ Ibid., 22.

²⁴ Prüm II Proposal: Motion – Dáil Éireann (33rd Dáil) – Tuesday, 26 Apr 2022 – Houses of the Oireachtas. (2022, April 26). [Www.oireachtas.ie](http://www.oireachtas.ie); Houses of the Oireachtas. <https://www.oireachtas.ie/en/debates/debate/dail/2022-04-26/15/>

²⁵ The Changing Nature of Crime And Criminal Investigations. (2018). Police Executive Research Forum.

<https://www.policeforum.org/assets/ChangingNatureofCrime.pdf>

Phase I: Identification

During the phase of identification, Forensic Accountants will seek to identify likely indicators of the crime under investigation that leave behind a financial footprint. This will help them determine potential sources of information and assist the LEA in evidence gathering. It is important to note, that Phase I: Identification can be used both reactively (i.e. crime is known or suspected), as well as, proactively (i.e. as a detective and preventive measure) as part of the policing efforts of an LEA.²⁶

Phase II: Investigation

Once the key indicators and corresponding potential financial elements of the investigated suspected criminal activity have been recognized, Phase II: Investigation can commence. During this phase, Forensic Accountants seek to obtain and forensically analyze key financial documents and other information in order to develop a financial model of the illicit activities. Examples of investigative actions and goals include:

- Interrogation of suspects regarding their assets and their lawful capacity to acquire these.
- Mapping the ownership of assets owned by decoys, strawmen, e.g. cars, through procedures such as analyzing intercepted phone communication, reviewing account information regarding who pays for insurance, repairs, etc..
- Calculation of crime proceeds.
- Evidence of Layering, Placement and Integration of crime proceeds (i.e. Money Laundering).

²⁶ Ibid., 22.

- Open source intelligence gathering (i.e. social media surveillance).
- Reviewing FIU²⁷ suspicious transaction reports.
- Exchange of information and request to cooperate with authorities of other states and countries where the suspects appear to also operate in.²⁸

This list of examples is not exhaustive and represents some of the investigative actions that can be employed and goals sought to achieve by Forensic Accountants during a financial investigation. Its inclusion also serves as a testament to the broad spectrum of considerations given by Forensic Accountants when engaging in the financial investigation of criminal activities.

Phase III: Litigation²⁹

Phase III, as apparent by its title, refers to litigation processes. Forensic Accountants can appear as expert witnesses or fact witnesses in the court of law; however, there is a caveat concerning the independence of their opinion when appearing as LEA officers; this will be explored in depth in a later section of this study.

Phase IV: Asset Forfeiture

Based on the findings of the financial investigation performed by the IFA and following the necessary allocation of authority by the courts of law of relevant jurisdictions, LEAs attempt to seize identified and traced proceeds of the crime.³⁰

²⁷ The core function of a Financial Intelligence Unit (FIU) is the receipt, analysis and transmitting of reports of suspicions identified and filed by the private sector. More information available at: <https://www.coe.int/en/web/moneyval/implementation/fiu>

²⁸ Ibid., 22

²⁹ Ibid., 22.

³⁰ Ibid., 22.

Phase V: Review and Dissemination (EUROPOL-specific)

Phase V relates specifically to the dissemination of information to the European Union Agency for Law Enforcement Cooperation (EUROPOL). While being outside of the main scope of this study, Phase V was included in recognition of the advantages it can bring to LEAs' ongoing criminal investigations. Dissemination of information between LEAs, both domestically and internationally, can potentially provide investigators with critical missing pieces of information pertaining to their assignment that can significantly assist them in their efforts to develop court appropriate evidence. Furthermore, cooperation and dissemination of information between LEAs is highly likely to increase the effectiveness of LEAs globally as it will: (i) contribute to the cultivation of advanced knowledge of the global criminal scene, (ii) allow the identification of emerging tendencies and new criminal threats, and (iii) allow LEAs to maintain an up-to-date intelligence picture of multiple crime areas.³¹

While ALEFA's published handbook focuses on elements of human trafficking, these phases can be used as a framework for the financial investigation of crimes of any nature and provide the reader with an intuitive presentation of the general structure of an IFA's approach to a criminal case.

2.1.2 Financial Investigation: Forensic Accounting Techniques

During a financial investigation, and depending on the scale of the investigated offence, IFAs wade through and analyze massive amounts of financial documentation and data in a manner that can allow them to demonstrate when and how much money

³¹ Ibid., 22.

was obtained from the illegal activity.³² This is possible through the use of a series of forensic accounting techniques and application of their expertise in financial and business elements such as banking procedures, accounting principles, taxation legislation, business operation practices, corporate structures, etc..

In the same way that an investigator follows scientific procedures in order to produce forensic evidence that allows the factual recreation of a crime and prove beyond a reasonable doubt the “how, what, where, when, and why” of the criminal act, IFAs apply forensic accounting techniques as methods of proof of a suspect’s criminality.³³ IFAs employ both inductive (using specific pieces of information towards forming a general conclusion) and deductive (taking a general observation towards forming a specific conclusion) reasoning when performing a financial investigation; each of these schools of thought is applied when considering available case facts (i.e. financial and non-financial information available for analysis) and are the foundation for creating and testing hypotheses of how and why a financial crime was committed or assessing whether financial information in conjunction with non-financial information supports the notion that the investigated criminal activity was perpetrated.³⁴

³² Pasco, G. A. (2012). *Criminal Financial Investigations: The Use of Forensic Accounting Techniques and Indirect Methods of Proof* (2nd ed.). CRC Press, an imprint of Taylor and Francis.

³³ *Ibid.*, 32.

³⁴ *Ibid.*, 32.

Main Forensic Accounting techniques used by IFAs in financial investigations include:

- **Specific Items analysis:** *“focuses on specific illegal or unreported transactions and shows the financial gain received by the perpetrator from the alleged illegal activity”*³⁵
- **Net Worth Theory analysis:** *“Under the net worth method, the assets less liabilities (net worth) and the personal expenditure of the defendants are compared to their reported income during the period of investigation. In case the net worth and personal expenditure exceed the reported income and cannot be accounted for by previous savings, indirect evidence is provided that the defendants must have obtained unreported income.”*³⁶

Discovery of unreported income can afterwards be related to the suspect’s potential involvement in criminal activities by listing them as likely sources of the unexplained income. The above serves as an example use of an LEA-embedded IFA supporting a criminal investigation by providing an indirect method of proof of the suspect’s criminality.

- **Bank Deposits and Cash Expenditures analysis:** *“the theory behind [...] is to identify other income through an analysis of the individual’s banking activity.”*³⁷

³⁵ Pasco, G. A. (2012). Criminal Financial Investigations: The Use of Forensic Accounting Techniques and Indirect Methods of Proof (2nd ed., p.131). CRC Press, an imprint of Taylor and Francis.

³⁶ Eisenberg, P. (2018). Application of the Net Worth Method in Forensic Accounting Investigations. SSRN Electronic Journal, 4(10). 1.
<https://doi.org/10.2139/ssrn.3324282>

³⁷ Pasco, G. A. (2012). Criminal Financial Investigations: The Use of Forensic Accounting Techniques and Indirect Methods of Proof (2nd ed., p.134). CRC Press, an imprint of Taylor and Francis.

An individual's banking activity is inclusive of all activity across all bank accounts that the suspect has signatory authority over.

- **“Cash T” Method:** *“lists all known types of income and all known expenditures as “cash transactions” flowing in and out of the cash account. Income items will appear as “debits” on the left side, and expenditures will appear as “credits” on the right side. If the expenditures of cash exceed the sources, either the taxpayer underreported his/her income or over reported his/her expenses.”*³⁸
- **Hybrid Methods:** As the name suggests, hybrid methods represent the combinative use of the above methods in unique cases and are associated with a high level of difficulty and complexity that can pose problems in presenting the case for prosecution.³⁹
- **Percentage Markup:** *“[...] is used by auditors to check whether a business is in line with the industry averages in the area. It is most appropriate when the business is a retail activity selling a limited type of product.”*⁴⁰

An IFA's investigative approach to any crime revolves under the same axis; they identify areas of the investigated crime that are the most likely to produce “financial footprints” and proceed to identify and gather any relevant financial information before, finally, performing their forensic analysis while also considering other non-financial information that has been obtained either at their request or under

³⁸ Cash Intensive Businesses Audit Techniques Guide - Chapter 5 - Examination Techniques. (n.d.). In https://www.irs.gov/pub/irs-utl/cashchapter5_210639.pdf. Internal Revenue Service (IRS).

³⁹ Ibid., 32.

⁴⁰ Pasco, G. A. (2012). Criminal Financial Investigations: The Use of Forensic Accounting Techniques and Indirect Methods of Proof (2nd ed., p.145). CRC Press, an imprint of Taylor and Francis.

the course of the investigation of the crime by other investigators and/or experts. While the forensic accounting methods used to achieve their goals can differ from case to case depending on the hypotheses developed after their initial review of case facts and available information, the above general description of investigative procedures taken by IFAs as financial investigators can be considered universally applicable in the context of criminal investigations and provides a solid foundation when reviewing their potential use as financial investigators of criminal cases concerning different crime areas.

2.2 Forensic Accountants and Organized Crime Investigations

As a concept, Organized Crime (“OC”) has been a matter of contention between academics and criminologists with various definitions being given to the term⁴¹. Frank E. Hagan’s (2006) study on the subject has isolated the following most common traits of OC found in its various definitions:

- Represented by organized groups with strict hierarchy
- Profits from illegal activities
- Is monopolistic
- Uses violence and threats
- Represents corruption and immunity⁴²

⁴¹ Hagan, F. E. (2006). “Organized crime” and “organized crime”: Indeterminate problems of definition. *Trends in Organized Crime*, 9(4), 127–137. <https://doi.org/10.1007/s12117-006-1017-4>

⁴² *Ibid.*, 41.

Considering the above commonly identified traits the following definition can be used to describe Organized Crime:

Organized Crime describes a range of illegal activities (including trafficking in people, drugs, illicit goods and weapons, armed robbery, counterfeiting and money laundering)⁴³ conducted by an organized group of people with strict hierarchies with a view to monopolize their illegal enterprises through the use of threat and violence in order to maximize their criminal enterprise's profits while enjoying immunity of operation through corruption.

By identifying its core traits, a common basis has been set for all OC which allows for the identification of OC elements expected to produce “financial footprints”. LEAs are, thus, provided with additional avenues of evidence discovery and, potentially, prosecution through the involvement of IFAs and more specifically, via the conduction of parallel financial investigations of the financial elements of OC.

Taking into account an IFA's relevant expertise, skillset and investigative scope, the following two areas of interest can be immediately identified from their investigative perspective in efforts to obtain evidence of criminal activity:

1. Proceeds associated with illegal activities; proceeds of crime refer to both money and assets that have been acquired directly or indirectly through participation in criminal activities.⁴⁴

⁴³ Interpol. (2017). Organized crime. Interpol.int. <https://www.interpol.int/en/Crimes/Organized-crime>

⁴⁴ What are the Proceeds of Crime? (n.d.). DeltaNet. <https://www.deltanet.com/knowledge-base/compliance/anti-money-laundering/what-are-the-proceeds-of-crime/>

2. Corruption of public officials; can be achieved through bribery and, as such, can potentially leave a “financial footprint” for the IFA to investigate.

The investigation of the two above areas has the potential to produce evidence that can be utilized in court as an indirect method of proof (based on the notion that “*if an object does not derive from a legal source, it has to derive from an illegal source*”⁴⁵) of the operation of an Organized Crime Group (“OCG”) and can potentially lead to the exposition of the identities of its officers as well as its affiliates.

A prime example of an indirect method of proof that has the potential to provide LEAs with the means to disrupt the activities of OC organizations are the findings of a successful investigation of money laundering activities.

Money laundering is defined as:

*“the attempt to change the appearance of funds from an illegal action to that of legitimate financial gains. This can apply to the proceeds from any financial fraud, any illegal source of funds, or just the failure to report legitimate income for the purpose of facilitating tax fraud.”*⁴⁶

Money laundering constitutes a financial crime and its investigation focuses on following the money backward in time to discover its true nature or forward to identify the persons involved in the facilitating of the money laundering scheme.⁴⁷

⁴⁵ Regtering, R. (2021, November 10). Analysis of case law on the indirect method of proof. AMLC.EU. <https://www.amlc.eu/analysis-of-case-law-on-the-indirect-method-of-proof/>

⁴⁶ Pasco, G. A. (2012). Criminal Financial Investigations: The Use of Forensic Accounting Techniques and Indirect Methods of Proof (2nd ed., p.251). CRC Press, an imprint of Taylor and Francis.

⁴⁷ Ibid., 32.

At first, this might seem counterintuitive when compared to alternative routes of investigation that focus on obtaining evidence of violent and life-threatening activities of an OCG. However, with revenues estimated in the billions and a structure similar to legitimate international businesses⁴⁸, the impact of a meticulous money laundering investigation has the potential to severely disable, disrupt and punish every facet of an OC syndicate and threaten its function by targeting its primary resource of power: money.⁴⁹

IFAs are uniquely positioned to conduct such investigations as they possess an exclusive perspective and understanding of the operation of OC organizations stemming from their novel – in the context of Law Enforcement – accounting and business-related knowledge and expertise. In addition to the above, they also possess the necessary know-how to overcome the obstacle of the intentional complexity that is expected to be found in the financial arrangements of OCGs⁵⁰. Their proficiency in business and accounting practices paired with their investigative ability and inquisitive nature allow the identification of additional areas of interest whose investigation can lead to the discovery of evidence of other, unrelated financial misconduct such as instances of tax fraud, thus, potentially creating new avenues of prosecution. Another example of supportive evidence that may also be developed through the forensic analysis of financial documentation by an IFA lies with their ability to discover abnormal monetary gains in accounts of persons of interest and/or businesses suspected to be affiliated with an OCG. Through employment of the Net Worth Theory analysis

⁴⁸ Ibid., 43.

⁴⁹ Murray, K. (2010). Dismantling organised crime groups through enforcement of the POCA money laundering offences. *Journal of Money Laundering Control*, 13(1), 7–14. <https://doi.org/10.1108/13685201011010173>

⁵⁰ Ibid., 49.

(as previously described under subsection **2.1.2 (Financial Investigation: Forensic Accounting Techniques)**), these gains can be linked to the suspects' involvement in OC criminal activities by listing them as likely sources of the unreported income.⁵¹

The above comes in sharp contrast with the approach of other agents of Law Enforcement, whose interest and investigative efforts revolve around the other identified traits of OC. Through different methods such as surveillance of persons of interest or infiltration of the OC organization either by undercover assignments or use of informants amongst the ranks of the organization⁵², they tend to adopt a more “direct” approach that focuses on obtaining evidence of the OC syndicate’s illicit activities. The results of these efforts vary depending on the jurisdiction of the investigating LEA and the relevant legislation.

In the most prominent example, the Racketeer Influenced and Corrupt Organizations (RICO) statute in the US, has facilitated the prosecution of persons involved in OC including members of the five New York crime families by proving their association with enterprises that are involved in a “pattern of racketeering”, regardless if they themselves were directly involved in the pattern. Despite, positive outcomes such as the above though, data from the early 90’s in the US has shown that only a third of suspects investigated were eventually charge due to the complexity and length of these cases.⁵³

⁵¹ Ibid., 32.

⁵² Albanese, J. S. (2001). The prediction and control of organized crime: A risk assessment instrument for targeting law enforcement efforts. *Trends in Organized Crime*, 6(3-4), 4–29. <https://doi.org/10.1007/s12117-001-1002-x>

⁵³ Government of Canada, Department of Justice, Electronic Communications. (2015). 4. Organized Crime Control Strategies and Their Effectiveness - Assessing the

It becomes apparent that the inclusion of IFAs within LEA investigative teams tasked with the mountainous goal to dismantle OC can offer unique advantages associated with their skills and expertise and create new avenues for prosecuting authorities. Their forensic analysis of complex financial transactions and records paired with their ability to “see the big picture” and expert accounting knowledge enables the potential discovery of substantial financial evidence of wrongdoing that can prove highly effective in achieving the prosecution and indictment of persons associated with OC while also threatening the investigated OC syndicate’s ability to convert revenues earned from illicit activities to the image of legitimate financial gains, thus, threatening its very existence.⁵⁴

At this point, the reader is reminded of the focus of this study, which is to highlight areas of criminal investigation that IFAs are uniquely positioned to engage in considering their previously established skillset and characteristics, and not to assess probabilities of prosecution. This comment is made in recognition of the increased complexity and sensitivity associated with prosecuting public figures such as politicians under corruption charges.

2.3 Forensic Accountants and Illicit Trafficking Investigations

Trafficking as per the Cambridge English Dictionary is defined as “*the activity of buying and selling something illegally*”.⁵⁵ The term entails a wide variety of illegal

Effectiveness of Organized Crime Control Strategies: A Review of the Literature. Justice.gc.ca. https://www.justice.gc.ca/eng/rp-pr/csj-sjc/jsp-sjp/rr05_5/p5.html

⁵⁴ Ibid., 49.

⁵⁵ Cambridge Dictionary. (n.d.). TRAFFICKING | meaning in the Cambridge English Dictionary. Cambridge.org. <https://dictionary.cambridge.org/dictionary/english/trafficking>

activities that involve the trade of both tangible goods, such as drugs, human beings, weapons, wildlife and timber, fish, antiquities and ubiquitous counterfeits, as well as, intangible goods bought and sold in cyberspace, such as passwords, malicious software, and personal information⁵⁶.

Trade as per the Cambridge English Dictionary is defined as “*the activity of buying and selling or of exchanging of goods or services between people and countries*”.⁵⁷ Considering its transactional nature as evident by its definition, trade – illicit or not – is bound to produce “financial footprints”. As previously established, Forensic Accountants are experts in financial investigation and are, thus, inherently suitable to participate in criminal investigations pertinent to illicit trafficking of any nature.

To allow the provision of further detail to the use of IFAs by associating their actions and investigative methods to specific elements within this broad crime area, this study will focus its analysis on human trafficking cases.

Trafficking in Persons (human trafficking) as per Article 3, paragraph (a) of the United Nations Trafficking in Persons Protocol is defined as: “[...] *the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the*

⁵⁶ Shelley, L. (n.d.). Illicit Trade and Our Global Response. Afsa.org. <https://afsa.org/illicit-trade-and-our-global-response>

⁵⁷ Cambridge Dictionary. (2019). TRADE | meaning in the Cambridge English Dictionary. Cambridge.org. <https://dictionary.cambridge.org/dictionary/english/trade>

*purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.”*⁵⁸

The Association of Law Enforcement Forensic Accountants (ALEFA), have characterized human trafficking as a “big business” of high value and global reach.⁵⁹ Their report has identified several financial elements associated with human trafficking that warrant the conduction of a financial investigation for the purposes of asset tracing, detection of criminal networks, and determining the scale of criminality.

Further detail is provided with the following examples of use of a financial investigation in a human trafficking case:

- *Calculation of criminal profits*
- *Identify victims of human trafficking*
- *Establish compensation for victims*
- *Tracing money flows*
- *Investigation of commercial structures*
- *Investigating an Organized Crime Group (example previously provided)*
- *Locating criminal profits in country of origin*

⁵⁸ Annex II: The definition of trafficking in persons and the mandate for the Global Report. (n.d.). United Nations Office on Drugs and Crime (UNODC). https://www.unodc.org/documents/data-and-analysis/glotip/Annex_II_-_Definition_and_mandate.pdf

⁵⁹ Ibid., 22.

- *Investigation of Hawala⁶⁰ and Money Service Businesses⁶¹ for transferring funds*
- *Tracing and seizing assets in country of origin⁶²*

The above list demonstrates several areas of potential interest to the financial investigator that can instigate further investigative action. Proven successful, such investigations can assist LEAs in: (i) identifying previously unknown threat actors, (ii) developing incriminating evidence that can be used in the identification and prosecution of involved individuals, as well as, (iii) the tracing and confiscation of illicit proceeds.

Considering the above, without the conduction of a parallel financial investigation and the inclusion of IFAs, an LEA's ability to build a compelling case against the alleged criminals is likely to be impaired due to its inability to develop additional supportive evidence that require financial expertise, as well as, inhibit its efforts to recover proceeds of the crime.

⁶⁰ Hawala is a system for transferring money, where the money is paid to a broker who then instructs another broker to deliver payment to the targeted recipient. The hawala remittance system is an alternative remittance arrangement that completely avoids the formal financial system. More information available at:

<https://www.accountingtools.com/articles/hawala>

⁶¹ A money services business (MSB) is any organization that transmits or converts money. These services can involve currency exchange, check cashing, issuing traveler's checks, and/or transmitting money. More information available at:

<https://www.accountingtools.com/articles/money-services-business>

⁶² Ibid., 22.

2.4 Forensic Accountants and Cybercrime Investigations

Cybercrime, as defined by S. Broadhead (2018), includes crimes committed by means of, or in relation to, computer systems or networks against the victims by criminal offenders that set their shops in a borderless digital realm.⁶³

To examine the relevancy and applicability of an IFA's skillset and expertise in cybercrime cases, the recent case of the downfall of crypto asset trading platform⁶⁴ QuadrigaCX and its – now deceased – co-founder and CEO Gerald Cotton will be used as an example. Considering the nature of operations of QuadrigaCX in the World Wide Web and the events related to its downfall included in the summary included below, it becomes clear that it falls under the previous definition of cybercrime and can, thus, be treated as an example for the purposes of this study.

QuadrigaCX Summary and Timeline of Events

Following the death of its CEO, Gerald Cotten, on Dec. 13, 2018, QuadrigaCX filed for creditor protection on Jan. 31, 2019 before entering bankruptcy proceedings on Apr. 8 of the same year as Cotten's death renders the company unable to access the password-protected "cold wallet" on his laptop. On Jun. 19, 2019, Ernst & Young

⁶³ Broadhead, S. (2018). The contemporary cybercrime ecosystem: A multi-disciplinary overview of the state of affairs and developments. *Computer Law & Security Review*, 34(6), 1180–1196. <https://doi.org/10.1016/j.clsr.2018.08.005>

⁶⁴ Crypto asset trading platforms (CTPs) are online applications or systems that bring together buyers and sellers of crypto assets to facilitate transactions or trades. More information available at: <https://www.securities-administrators.ca/investor-tools/crypto-assets/buying-and-selling-crypto-assets/>

reports that QuadrigaCX owes approximately 76,000 users a total of \$74.1 million in cash and \$140.5 million in cryptocurrency, for a total value of \$214.6 million.⁶⁵

It wasn't before the involvement of the Ontario Securities Commission and its multi-disciplinary team's investigation that QuadrigaCX's reason for collapse was discovered. Their investigative actions included:

- *Analysis of trading and blockchain data*
- *Key witness interviews*
- *Collaboration with numerous regulatory bodies (Canadian and international)*
- *Record analysis from third-party payment processors and banks*
- *Reconstruction of platform's financial affairs*
- *Analysis of more than 368,000 QuadrigaCX's clients' accounts and six million individual transactions*
- *Thousands of QuadrigaCX-related emails*
- *Analysis of records of other crypto asset trading platforms⁶⁶*

Following their analysis of all relevant data, the OSC staff determined that QuadrigaCX collapsed due to “old-fashioned fraud wrapped in a new technology”⁶⁷

⁶⁵ Elliott, J. K. (2019, June 20). QuadrigaCX timeline — and the many questions still to be answered | Globalnews.ca. Global News.

<https://globalnews.ca/news/5411203/quadrigacx-timeline-and-the-many-questions-still-to-be-answered/>

⁶⁶ OSC publishes investigative report of QuadrigaCX. (2020, June 11). OSC. <https://www.osc.ca/en/news-events/news/osc-publishes-investigative-report-quadrigacx>

⁶⁷ Shecter, B. (2020, June 11). OSC investigation reveals Quadriga mystery was old-fashioned fraud wrapped in a new technology. Financialpost. <https://financialpost.com/technology/blockchain/osc-investigation-reveals-quadriga-mystery-was-old-fashioned-fraud-wrapped-in-a-new-technology>

committed by its co-founder and CEO, Gerald Cotten. Their report, published on Jun. 11, 2020, determined that:

“Cotten opened accounts under aliases and credited himself with fictitious currency and crypto asset balances, which he traded with unsuspecting Quadriga clients. Cotten sustained real losses when the price of crypto assets changed, thereby creating a shortfall in assets available to satisfy client withdrawals. Cotten covered this shortfall with other clients’ deposits – in effect, operating a Ponzi scheme. Staff calculated that the bulk of the \$169 million in client losses – approximately \$115 million – arose from Cotten’s fraudulent trading.”⁶⁸

The investigative actions performed by OSC that led to the identification of the cause of the collapse of QuadrigaCX included the accurate reconstruction of the flows of funds, and, as such, constitute a compelling demonstration of the applicability of an IFA’s skillset in cybercrime investigations that involve financial elements. Through the discovery and analysis of additional data sources relevant to the initial investigation, IFAs can develop crucial evidence to support a case against a cybercriminal or group of cybercriminals that could have otherwise remained undetected.

2.5 Forensic Accountants and Terrorism Investigations

Terrorism has sparked many definitional debates along the years and has received an array of different definitions. To this day, no universal definition exists with many governmental agencies, operating even under the same government, providing

⁶⁸ Ibid., 66.

different descriptions of the term.⁶⁹ Considering the scope of this study which focuses on the applicability of IFAs' expertise in different criminal investigations from positions within Law Enforcement and this study's prior identification of their perspective as financial investigators, adopting a specific definition for terrorism is not considered vital. Terrorism, after all, is – sadly – a widely known term that does not require further introduction.

However, to assess the relevancy of an IFA's skills in terrorism investigations a connecting line has to be drawn between the act of terrorism and the accounting expert. As with most aspects of life, in order to achieve one's goals one must commit resources towards them. Terrorist organizations are no stranger to that; regardless of their goals and ideologies, their operations require the use of funds which they acquire via "terrorist financing" activities. The following quote from former Secretary General of the Council of Europe, Terry Davis, underlines the importance of money to terrorist organizations : *"Terrorists seldom kill for money, but they always need money to kill"*.⁷⁰

According to The United Nations Office on Drugs and Crime (UNODC): *"Terrorist financing encompasses the means and methods used by terrorist organizations to finance activities that pose a threat to national and international security. Money provides terrorist organisations with the capacity to carry out terrorist activities, which can be derived from a wide variety of sources. Money can come from*

⁶⁹ Beare, M. E. (2012). Encyclopedia of transnational crime & justice. Sage Publications.

⁷⁰ Gurule, J. (2008). Unfunding Terror: The Legal Response to the Financing of Global Terrorism. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.1135796>

both legitimate sources (i.e. profits from businesses and charitable organizations) and criminal sources (i.e. Drug trade, weapon smuggling, kidnapping for ransom). ”⁷¹

Criminal sources as identified in the examples given by UNODC suggest that terrorist organizations seek to obtain funds by engaging in illegal activities that have been previously identified as likely operations of OCGs. This can be interpreted in the following two ways:

1. The terrorist organization engages in activities other than acts of terror in order to fund the latter, or
2. The terrorist organization is affiliated with an OCG and reaps monetary rewards to fund their acts of terror by providing “services” that further the goals of the OCG; a form of “quid pro quo”.

Be it the former or the latter, the origin of the funds remains the same, thus tasking the terrorist organization with the transformation of the funds to useable assets via money laundering processes⁷²; in stark similarity to Organized Crime. IFAs can, thus, concentrate their financial investigation on potential money laundering activities via the application of the aforementioned forensic accounting techniques on identified suspects. As previously seen in this study’s review of OC, a successful investigation of money laundering activities can lead to the identification and

⁷¹ UNODC AND PARTNERS ORGANIZED A THREE-DAY FOUNDATION COURSE ON INVESTIGATIONS OF THE TERRORISM FINANCING IN TURKMENISTAN. (n.d.). Www.unodc.org; United Nations Office on Drugs and Crime. <https://www.unodc.org/centralasia/en/unodc-and-partners-organized-a-three-day-foundation-course-on-investigations-of-the-terrorism-financing-in-turkmenistan.html>

⁷² Chong, A., & Lopez-De-Silanes, F. (2015). Money Laundering and Its Regulation. *Economics & Politics*, 27(1), 78–123. <https://doi.org/10.1111/ecpo.12051>

apprehension of key members, associates, and affiliates of the terrorist organization as well as, the seizure of its assets, consequently threatening its existence. In addition to the above, an IFA can also apply their forensic accounting knowledge and techniques to analyze accounts associated with identified members and/or controlled businesses of the terrorist organization in efforts to trace legitimate sources of funds. Such findings can lead to additional enquiries made by the LEA and potentially uncover ties between terrorist organizations with individuals and/or charitable organizations that evaded initial suspicion.

2.6 Forensic Accountants and Financial Crime Investigations

Financial crime is a considerably broad area that engulfs criminal activities characterized by the use of fraud – and often conspiracy –, as well as increased complexity.⁷³ Financial crime is frequently described as a crime against property, which involves the wrongful conversion of another person's property for one's own use and benefit. Profit motives drive financial crime, which is committed to seize control of or get access to another person's property.⁷⁴ The above definition can be considered fairly accurate, however it fails to incorporate certain illegal activities that are considered financial crimes such as money laundering – a criminal act widely recognized as a financial crime. When assessed against the above definition, money laundering would not be characterized as a financial crime as it is not a crime against one's property. Due to such limitations, the following more inclusive definition of financial crime, sourced

⁷³ Ibid., 32.

⁷⁴ Gottschalk, P. (2010). Categories of financial crime. *Journal of Financial Crime*, 17(4), 441–458. <https://doi.org/10.1108/13590791011082797>

from EUROPOL, is considered more appropriate and will be adopted for the purposes of this study:

“Economic crime, also known as financial crime, refers to illegal acts committed by an individual or a group of individuals to obtain a financial or professional advantage. The principal motive in such crimes is economic gain.”⁷⁵

Under EUROPOL’s definition of financial crime, it becomes suggestible that most of the previously examined crime areas can be characterized as financial crimes as criminal actors engage in illegal activities in pursuit of wealth. This is, of course, not without exceptions as threat actors might engage in criminal activities for ideological reasons (e.g. hacktivists, terrorist organizations) and not as a means to achieve material gains. At the very least, though, this study has shown that financial crime is entrenched in many different crime areas. For example, it’s been previously discussed that OCGs engage in money laundering activities in order to conceal the illicit origin of their operations’ proceeds and reintegrate them into the legal economic cycle. This study has also argued that illicit trafficking operations and terrorist organizations are also often involved in money laundering activities. Regardless of their reasons and ulterior motive, the fact remains that by doing so they commit a financial crime.

George A. Manning, in his book “Financial Investigation and Forensic Accounting”, supports that all financial crimes are characterized by presence of the following three factors: (i) valuable asset(s) (i.e. something valuable), (ii) opportunity to take possession of the valuable asset(s) covertly, and (iii) a threat actor prepared to

⁷⁵ Economic Crime. (n.d.). Europol. <https://www.europol.europa.eu/crime-areas-and-statistics/crime-areas/economic-crime>

perpetrate the crime.⁷⁶ Based on the above hypothesis, he identified a wide array of illegal activities as “financial crimes”⁷⁷, several of which are commonly found entrenched in broader crime areas. Manning’s “three-factor” hypothesis and listed range of examples of financial crimes, illustrate the wide applicability of the term in different crime areas. Depending on their extent and characteristics (e.g. no. of offenders, size of illicit gains, use of violence or threat, etc.) these activities can be investigated as standalone criminal offences or in the context of a broader crime area such as OC. Generally speaking, the inclusion of any illegal activity whose principal motive is economic gain within the context of a crime creates an additional layer of criminality to the act.

In previous subsections, this study has committed to a simple pattern in its goal to demonstrate how parallel financial investigations conducted by IFAs embedded in LEAs provide additional investigative avenues in different crime investigations.

The structure of this pattern has remained deliberately uncomplicated so as to facilitate the reader’s understanding:

1. Definition of the specific crime area;

⁷⁶ Manning, G. A. (2011). *Financial investigation and forensic accounting* (3rd ed.). CRC Press.

⁷⁷ *Ibid.*, 76. Namely: Arson, Bankruptcy Fraud, Bribery, Loan Sharking, Credit Card Fraud, Prostitution and Pandering, Fencing, Mail Order Operations, Pornography, Gambling, Skimming/Embezzlement, Labor Racketeering, Stock Fraud and Manipulation, Narcotics, Racketeering, Continuing Criminal Enterprise, Nonprofit Organization Fraud, Corrupt Churches, Burglary, Forgery and Uttering, Larceny, Robbery, Tax Evasion, Bank Frauds, Restraint of Trade, Government Contract Fraud, Corporate Raiding, Extortion, Coupon Fraud, Money Laundering, Medicare and Medicaid Fraud, Repair and Maintenance Fraud, Computer Crimes, Insider Trading, Corporate Fraud, Swindlers, Conspiracy, Principal, Accessory, Kidnapping, Theft, Identity Theft, Child Support, Counterfeiting, Bad Checks, False Statements, and Misprison of Felony

2. Identification of potential financial elements entrenched within the crime area;
3. Demonstration of an IFA's perspective and potential investigative actions;
4. Example of unique avenue of investigation associated with an IFA's involvement.

Each example and subsequent discussion revolves around the financial investigation of potential aspects of the crime that constitute financial crimes by themselves, thus allowing prosecution on a standalone basis, and/or provide an indirect method of proof for the principal crime investigation. As such, the potential effectiveness of the inclusion of IFAs in financial crime investigations has been indirectly discussed and demonstrated previously.

2.7 Forensic Accountants and Other Crimes

So far, this study has shown that the main function of IFAs embedded in Law Enforcement is the conduction of financial investigations that run parallel to ongoing criminal investigations. Regardless of the nature of the suspected criminal activity, they offer LEAs the additional capability to discover supplementary evidence that can serve either as a direct or an indirect method of proof while also offering the potential to uncover financial fraud that is unrelated to the suspected criminal activity as an alternate avenue of prosecution (e.g. tax-related fraud).

Using the same accounting techniques and tools, IFAs can apply their skills and expertise in any suspected criminal act expected to contain complex financial elements. This holds true even for cases where illicit gain is not the motivation behind the crime (e.g. terrorism). Thus, the potential uses of IFAs in ongoing criminal investigations is virtually unlimited. Their perspective as financial investigators combined with their

ability to “see the big picture” and assess criminal activities from a business perspective, as well as their ability to analyze complex financial information, allows them to interpret case facts in different ways than a regular investigator and draw inferences that lead them on unique investigating paths.

[3] LIMITATIONS AND CHALLENGES ASSOCIATED WITH THE ROLE OF FORENSIC ACCOUNTANTS WITHIN LAW ENFORCEMENT AGENCIES

In the previous section, this study focused on identifying ways in which an IFA’s expertise and skillset can be utilized by LEAs in an array of different crime investigations. If a conclusion were to be drawn solely based on the above information, IFAs could be characterized as indispensable tools for LEAs as their presence and involvement in criminal investigations can increase an LEA’s overall effectiveness in the detection, investigation, and prosecution of criminal actors.

However, in order to draw a fair conclusion, certain limitations to an IFA’s scope and challenges associated with their role as members of an LEA must be recognized, assessed and addressed. This study’s identification and review of limitations and challenges shall be distinguished into the three following categories and their respective components:

1. Function-specific limitations and challenges associated with LEA-embedded IFAs in Canada. Under this subsection, the Standard Practices for IFA Engagements Handbook will be used as a referral point by reviewing sections of interest and associated potential issues and limitations.

2. Adopted criminal practices relevant to an LEA-embedded IFA's role as a financial investigator that pose challenges to their ability to conduct a successful financial investigation.
3. Other challenges and limitations associated with the work of LEA-embedded IFAs.

3.1 Standard Practices for IFA Engagements Handbook Overview (Canada)

The Standard Practices for Investigative and Forensic Accounting Engagements handbook (will be referred to as "IFA Standard Practices" for the remainder of this study), published in 2006 by the Alliance for Excellence in Investigative and Forensic Accounting (IFA Alliance) under the umbrella of The Canadian Institute of Chartered Accountants (CICA), addresses a range of practice issues specific to the performance of IFA engagements and has been established in Canada as the primary framework of required, but not legally enforceable, practices that IFA practitioners need to follow during the course of their engagements. As such, its relevance is extended to IFAs working within Canadian LEAs and provides this study with an established framework against which an LEA-embedded IFA's range of responsibilities can be assessed.

The IFA Standard Practices are split into the following sections, each of which includes a range of practices and considerations divided in subparagraphs:

1. Introduction, Definition & Applicability of IFA Standard Practices – Paragraphs 100.01-100.21
2. Engagement Acceptance – Paragraphs 200.01-200.07
3. Planning & Scope of Work – Paragraphs 300.01-300.07
4. Information Collection & Analysis – Paragraphs 400.01-400.16

5. File Documentation – Paragraphs 500.01-500.05
6. Reporting – Paragraphs 600.01-600.11
7. Expert Testimony – Paragraphs 700.01-700.04⁷⁸

**Note: Paragraphs used in subsequent discussions are available in Appendix 1.*

3.1.1 Sections of Interest: Associated Challenges & Limitations

3.1.1.1 Definition, Applicability, and Information Collection & Analysis

When examined in conjunction with each other, paragraphs **100.08**, **100.09**, **100.10**, **100.15**, **100.17**, **100.18**, **400.15**, and **400.16**⁷⁹ and their related guidelines to IFA engagements are a potential cause for concern when it comes to the IFA’s function within LEAs both for the LEA and the IFA. To provide the reader with further clarity as to the reasons why, each paragraph will be reviewed and applied to the nature of work of an LEA-embedded IFA.

Paragraph **100.08**, makes clear that the inclusion of an IFA in criminal financial investigations would render the investigation an “IFA engagement” as it falls within its given definition. Paragraph **100.15** gives an expansive attribute to the term “IFA engagement” and allows it to engulf a range of different activities that share some of its defined components (as outlined in paragraphs **100.09**, **100.10**). It, then, ventures further to advise that any individuals performing such components are also required to follow the IFA Standard Practices in addition to any professional standards that may

⁷⁸ Standard Practices for Investigative and Forensic Accounting Engagements. (n.d.). IFA Alliance. Retrieved May 30, 2023, from <https://www.muskratfallsinquiry.ca/files/P-00244.pdf>

⁷⁹ See Appendix 1: Standard Practices For Investigative and Forensic Accounting Engagements (2006)

apply to them. Paragraphs **100.17** and **100.18** summarize the above points by explicitly relating the work performed by all individuals within the context of the financial investigation to the IFA Standard Practices and attaching the requirement to abide by them.

Based on the above, this study identifies a potential issue for Canadian LEAs seeking to employ IFAs as criminal financial investigators as their inclusion within an investigative team introduces an additional “ruleset” under which its members are required to function. Regardless of the ease with which the IFA Standard Practices can be incorporated by other LEA officers, adding an additional framework to any kind of engagement – in this case, a criminal financial investigation – is inherently bound to increase its complexity.

From the perspective of the LEA-embedded IFA, the aforementioned paragraphs by themselves are not associated with potential issues or limitations as they are already expected to abide by the IFA Standard Practices. However, when considered in conjunction with paragraphs **400.15** and **400.16**⁸⁰, potential issues arise.

As independent practitioners, IFAs are in a position to control all facets of their assignment, including the work of others. Being aware of the practices relating to their reliance on work of others, they can pre-emptively mitigate the likelihood of facing relevant issues during the course of their assignment by considering the factors outlined under paragraph **400.15** before consulting other experts or considering findings of other experts as part of their analysis, as well as, when forming their teams. The same holds true for IFAs operating within forensic accounting departments of firms operating in

⁸⁰ Ibid., 79.

the private sector. Having said that, it is more likely that mitigation of such issues is tackled by management who is aware of the requirements to abide by the IFA Standard Practices and not directly by the employee IFA. In contrast to the above, as members of an LEA, IFAs are most likely to operate within investigative teams assembled by their superior officers. This presents a predicament for two reasons; firstly, IFAs within predefined investigative teams might struggle to implement paragraph **400.15** both in terms of assessment of work of others, as well as, actions related to any identified inadequacies, and, secondly, superior officers in charge of an investigation would have to be familiar with the IFA Standard Practices and take them into account when forming investigative teams, as well as, ensure the investigative team's adherence to them throughout the course of the investigation. The latter also relates to previous commentary regarding the inherent increase in complexity in an investigation when an additional "ruleset" is introduced. The former, on the other hand, has the potential to cause more significant issues if the IFA identifies issues related to the factors that need to be assessed as per paragraph **400.15**. As members of an LEA, IFAs would be required to comply to procedures established by the LEA and to lawful orders from their superiors.⁸¹ An order from their superior to incorporate pieces of evidence from a questionable source – from the perspective of an IFA – may result in conflict with their requirement to follow the Standard Practices. The above example constitutes a general takeaway that does not only apply to paragraph **400.15** but the entirety of the IFA Standard Practices and highlights the fact that LEA officers and members that operate alongside the IFA need to be familiar with them.

⁸¹ Community Safety and Policing Act, 2019. (n.d.). Ontario.ca.
<https://www.ontario.ca/laws/statute/19c01>

3.1.1.2 Reporting and Expert Testimony

Paragraphs **600.04, 600.09, 700.01, 700.02**⁸² of the IFA Standard Practices bring into the spotlight perhaps the most important requirement that an IFA needs to consider before engaging in an assignment; the presence of independence both of mind and in appearance in the eyes of the tribunal. Presence of the above becomes particularly important if the LEA seeks to utilize the IFA as an expert witness⁸³ in the court of Law. Considering their ability to simplify and convey complex financial information and the fact that testifying is considered to be amongst an IFA's enhanced skills as shown under the relevant section of this study (*1.2.4 Skillset and Characteristics of IFAs*), inclusion of such responsibilities is likely to aid an LEA in the prosecution of criminals. The above is also supported by the FBI's role description for Forensic Accountants within their ranks which includes providing testimony in the court of Law amongst their main responsibilities.

In Canada, specific legal requirements apply before allowing an individual to provide qualified expert evidence. An expert's qualifications are investigated in two stages. The first step is to examine the "preconditions of acceptability". The presented evidence must meet the following threshold requirements for admissibility:

- (i) The opinion must be logically relevant;
- (ii) The opinion must be necessary to assist the trier of fact;

⁸² Ibid., 79.

⁸³ A person who has substantial expertise or knowledge in a particular field or discipline above and beyond what might be anticipated of a layperson is an expert witness. It is the responsibility of the expert witness to use their knowledge to provide the tribunal or court with a qualified opinion about specific issues of contention. Source: https://www.law.cornell.edu/wex/expert_witness

- (iii) The opinion must not be subject to any other exclusionary rule;
- (iv) The expert must be properly qualified, which includes the requirement that the expert is willing and able to fulfil the expert's duty to provide the court with evidence that is: impartial, independent and unbiased.⁸⁴

The second stage is tied to the trier of fact's additional function as a "gatekeeper" in the court of law. Under this function, judges are required to determine the testimony's relevancy to the case at hand, as well as, its reliability.⁸⁵ As such, LEA-embedded IFAs should expect to have their findings assessed by the trier of fact against the above threshold requirements, before being allowed to appear in court as expert witnesses. In addition to the above, post their qualification as expert witnesses by the trier of fact, an IFA's independence may be rigorously questioned during testimony by the opposing counsel in efforts to discredit them and their report on the basis of presence of bias. To provide an example of the above, opposing counsel can argue that the IFA's judgement and subsequent analysis are affected by their position within the LEA and their report was prepared with a view to help the LEA achieve a favourable court decision, instead of providing a fair, independent and objective analysis.

The above does not necessarily constitute a limitation as to their ability to appear as expert witnesses in the court of law, but it does represent a significant challenge for LEA-embedded IFAs that should be recognized and accounted for along every step of their investigation. IFAs are by nature ethical and skeptical professionals (as seen under

⁸⁴ Legal Requirements for Qualified Expert Evidence - Criminal Law Notebook. (n.d.). Criminalnotebook.ca. http://criminalnotebook.ca/index.php/Legal_Requirements_for_Qualified_Expert_Evidence

⁸⁵ Gaeta, A. M., & Sitnick, E. A. (1999). Reliability and Admissibility Under Daubert. <https://cyber.harvard.edu/daubert/ch3.htm>

subsection *1.2.4 (Skillset and Characteristics of IFAs)*) and are, thus, inherently well-equipped to perform their duties and produce analyses without holding prejudice against the suspect(s) under investigation. As long as they adhere to the IFA Standard Practices which include the consideration of reasonable alternative theories, approaches and methodologies (paragraphs **400.12, 400.13**)⁸⁶ and are able to display that their developed evidence is a result of exhaustive analysis, they might be able to demonstrate the presence of independence in their work, thus improving their chances to be accepted as expert witnesses in court despite their professional attachment to the investigating LEA.

As a general takeaway, this study is able to discern that while the IFA Standard Practices provide guidelines that present certain challenges for an LEA-embedded IFA operating in Canada, as well as, their investigative team as a whole, thus increasing the complexity of financial investigations involving IFAs, they are not associated with limitations to the IFA's investigative work other than imposing the sensible requirement that their report does not tread into matters that lie outside of their expertise. On the contrary, being able to provide proof of close adherence to the IFA Standard Practices while performing an investigation can aid LEAs and IFAs in their efforts to establish the latter as expert witnesses during criminal proceedings. In other words, if closely followed, the IFA Standard Practices can be utilized by both LEAs and IFAs in their efforts to overcome arguments concerning the latter's lack of independence both in appearance – stemming from their position within the force –, and, of mind (e.g. unconscious bias) in the court of law.

⁸⁶ Ibid., 79.

3.2 Evolution of Crime & Criminal Practices: Associated Challenges &

Limitations

Challenges and limitations that affect the IFA's scope and role as a financial investigator of criminal cases as a member of Law Enforcement do not only stem from the IFA Standard Practices (Canada-specific) or any other professional frameworks of different jurisdictions that might apply to them, but can also be the product of criminal practices intentionally employed by high-level criminals as a method to conceal their actions and identities. Previous sections of the study have shown that, in the context of criminal investigations, IFAs heavily rely upon the existence of paper trail in order to develop their evidence; much like how the investigation of a violent crime relies on the analysis of footprints, drops of blood, fibres and other physical evidence.⁸⁷ Being aware of the above, criminals can employ several different techniques in order to minimize paper trail that can be associated with their illicit activities and obscure the "vision" of the IFA.

Before providing examples of such practices, attention must be drawn to the evolution of crime itself. In continuation of this study's previous findings which have associated LEA-embedded IFAs with the investigation of financial aspects of criminal activities, this discussion shall be mainly focused in the evolution of profit-driven and financial crimes.

Technological innovation and the widespread use of digital technologies have helped transform and empower criminal activities both by providing new opportunities for threat actors (acting as points of access through exploitation of weaknesses), as well

⁸⁷ Ibid., 32.

as, by utilizing new technologies and services to their advantage.⁸⁸ The former highlights the reason why individuals, corporations and governments are becoming increasingly susceptible to financial crime due to high reliance on electronic systems across all of their activities,⁸⁹ while the latter has provided threat actors with additional tools that aid them in their efforts to avoid detection and/or identification which, in turn, have led to the adoption of additional criminal practices that present challenges to the IFA.

Examples of criminal practices (both traditional and associated with recent technological innovations) that pose challenges to the IFA are discussed below:

- **Use of Cash and associated practices:**

Cash has traditionally posed a challenge to LEAs and their investigating units due to its possessed properties as a bearer negotiable instrument. Bearer negotiable instruments are not attached to any explicit ownership information, nor is such information required to be recorded when the instrument is held or traded in physical form; the holder is the owner and ownership can be simply transferred by transferring the instrument. For example, when cash is received or used to purchase an item or service (e.g. when purchasing one's daily cup of coffee from their local coffee shop), nor the buyer or the seller engage in physical alterations of the bills to establish their ownership over them; whoever is in possession of the cash is

⁸⁸ 2022 Interpol Global Crime Trend Summary Report. (2022). INTERPOL. <https://www.interpol.int/en/content/download/18350/file/Global%20Crime%20Trend%20Summary%20Report%20EN.pdf>

⁸⁹ Reid, A. S. (2017). Financial Crime in the Twenty-First Century: The Rise of the Virtual Collar Criminal. *White Collar Crime and Risk*, 231–251. https://doi.org/10.1057/978-1-137-47384-4_9

automatically entitled to use it in subsequent transactions without required to show their origin or prove their ownership over them.⁹⁰ Due to the above, use of cash provides criminals with the opportunity to disguise the source of funds and cut the link with the ultimate beneficiary.⁹¹ ALEFA have identified the use of cash as the main method used by OCGs to launder their proceeds; their practices include the use of cash couriers that carry large amounts of money across borders (cash smuggling) and pose a challenge for the both the LEA, as well as, the IFA in their efforts to trace the proceeds of their crimes.⁹²

- **Use of Informal Value Transfer Systems (“IVTS”):**

Defined as: *“any system, mechanism, or network of people that receives money for the purpose of making the funds or an equivalent value payable to a third party in another geographic location, whether or not in the same form.”*⁹³

IVTS allows the transfer of funds without the use of conventional banking system services via non-bank financial institutions or other businesses entities whose primary business activity may not be the transmission of money. Hawala represents a type of ITVS that has been recognized as a common way for criminals to move funds

⁹⁰ Garratt, R., & Shin, H. (2023). BIS Bulletin No 73 Stablecoins versus tokenised deposits: implications for the singleness of money.

<https://www.bis.org/publ/bisbull73.pdf>

⁹¹ Why is cash still a king? A strategic Report on the use of cash by Criminal groups as a facilitator for money laundering. (n.d.). Europol.

<https://www.europol.europa.eu/publications-events/publications/why-cash-still-king-strategic-report-use-of-cash-criminal-groups-facilitator-for-money-laundering>

⁹² Ibid., 22.

⁹³ United States Department of the Treasury Financial Crimes Enforcement Network Informal Value Transfer Systems. (n.d.).

<https://www.fincen.gov/sites/default/files/advisory/advis33.pdf>

across borders by ALEFA.⁹⁴ Use of IVTS offers the following advantages to threat actors:

- overrides currency reporting controls;
- offers opportunity to avoid taxation;
- ensures anonymity due to minimal or no records maintained; virtually, no paper trail exists.⁹⁵

Due to the above, it becomes apparent that the criminal use of such unconventional fund transferring practices presents a significant challenge for the IFA in accomplishing their mission.

- **Use of Money Service Businesses (“MSBs”) (e.g. Western Union)**

Defined by EUROPOL as: *“non banks which offer financial services, primarily money remittance and currency exchange among other services. They usually operate through a global network of agents.”*⁹⁶

MSBs operate under a transaction-based system rather than an account based system, meaning that each transaction and customer are treated on an independent basis. Due to the nature of the industry, little information about the customer is kept and, as such, recurrent transactional patterns are not possible to discern. Criminals are able to abuse the system in the following two ways:

⁹⁴ Ibid., 22.

⁹⁵ Ibid., 93.

⁹⁶ Why is cash still a king? A strategic Report on the use of cash by Criminal groups as a facilitator for money laundering | Europol. (n.d., p. 31). Europol.
<https://www.europol.europa.eu/publications-events/publications/why-cash-still-king-strategic-report-use-of-cash-criminal-groups-facilitator-for-money-laundering>

- “Smurfing”: By employing a number of individuals, they are able to split proceeds of crimes in smaller amounts and transfer them to their desired location while remaining below regulatory thresholds.
- Complicit/Criminally Controlled MSBs: By enlisting the assistance of a complicit “insider” of the MSB and/or by managing an MSB branch directly.⁹⁷

Without prior knowledge or indicators gathered by traditional investigation methods e.g. identities of facilitators, MSB locations frequented by suspects, etc., use of such practices can limit the effectiveness of an IFA.

- **Use of the Gambling Sector**

Criminals can engage in a range of schemes through which they can legitimise the source of illicit funds with minimal paper trail, thus, limiting the effectiveness of an IFA. Examples include:

- purchasing a winning lottery ticket from the its owner at a value greater than the prize money;
- via “gambling” at complicit/criminally controlled casinos; and
- via the use of fixed odds betting terminals found in small businesses such as betting shops, bars, and arcades; while a proportion of the illicit gains is lost, these terminals provide an explanation for the source of money.⁹⁸

⁹⁷ Ibid., 91.

⁹⁸ Ibid., 91.

- **Use of Virtual Currencies (e.g. Bitcoin)**

Virtual currencies – a direct product of recent technological advancements – have sharply risen in popularity during the 21st century. The surrounding inconsistent regulatory landscape on a global level, has provided criminals with a powerful tool at their disposal as made evident by their common use as bartering tools for illicit goods and services on dark marketplaces.⁹⁹ Virtual currencies possess several characteristics which paired with the aforementioned lack of a global regulatory framework, makes them “*extremely difficult to police*”¹⁰⁰.

The above applies to LEA-embedded IFAs called to financially investigate criminal activities that may involve virtual currency transactions. This becomes evident when considering some of the characteristics of virtual currencies:

- Cybercurrency transfers are instantaneous and borderless and many have been designed so that users can transact in relative anonymity.
- No personally identifiable information (PII) is collected linking sellers and buyers to transactions.
- Wide availability and ease of access is present via Bitcoin ATMs which provide criminals with the opportunity to trade and access their wallet from different jurisdictions.

⁹⁹ Irwin, A. S. M., & Dawson, C. (2019). Following the cyber money trail. *Journal of Money Laundering Control*, 22(1), 110–131. <https://doi.org/10.1108/jmlc-08-2017-0041>

¹⁰⁰ *Ibid.*, 99.

- Existence of decentralized P2P exchanges whereby virtual currencies can be traded for cash, thus, allowing criminal actors to dispose their illicit proceeds in exchange for virtual currency.¹⁰¹

The aforementioned characteristics can adversely affect the availability of financial information (“paper trail”) for the IFA, thus, limiting their ability to “follow the money”.

- **Real Estate Investments**

Another common criminal practice to launder illicit proceeds is through the use of real estate investments. Commonly used techniques involve the under and over-evaluation of a property and require the assistance of complicit professionals (e.g. notaries, real estate agents, appraisers, etc.). To provide an example, the under-evaluation of properties allows criminals to complete the acquisition of an asset for a price that doesn’t reflect the market price by paying the difference between them and, perhaps, an additional premium to the seller under-the-table in cash. They can, afterwards, move forward with the sale of the asset at market value and legitimise their illicit proceeds as profits from the sale.¹⁰²

Employment of the above technique can prove difficult to identify by an IFA without the help of an external expert (e.g. land appraiser, surveyor), and raises the additional requirement of obtaining evidence that supports complicity of parties that facilitated the transaction.

¹⁰¹ Ibid., 99.

¹⁰² Ibid., 91

3.3 Other Challenges & Limitations associated with an IFA's Investigative Work

- **Unbound access to information can compromise an IFA's independence:**

One of the main points made under this study's review of the IFA Standard Practices is the importance of independence both of mind and in appearance being present for the IFA. IFAs possess certain characteristics (i.e. ethical, apply skepticism) that allow the adoption of an independent and open-minded perspective. However, when embedded in Law Enforcement and aiding in criminal investigations, they operate as part of a larger investigative unit within which information and evidence is shared between Law Enforcement members of various positions associated with different areas of investigation. Considering the cooperative nature of investigative units, an IFA's access to information is not restricted to information that is only relevant to their investigation. As such, maintaining a neutral standpoint in their analysis and report can mount a significant challenge. For example, if an investigative unit within the same LEA as the IFA is in possession of physical evidence that suggest a suspect's involvement in illegal activities, the IFA is susceptible to becoming subconsciously certain of their criminality, thus, damaging their independence of mind and reliability of their findings.

- **Fluid nature of legislative and regulatory frameworks:** Changes in legislation and regulatory frameworks have the potential to present significant challenges to the work of an LEA-embedded IFA as they can directly affect their scope and resources. They may mitigate or accentuate criminal activity¹⁰³, widen or obscure the vision of investigators, limit or enhance their ability to

¹⁰³ Ibid., 32.

access information, etc.. As such, IFAs are required to demonstrate a high level of adaptability and the ability to recognize the potential impact of such changes during the course of their investigation.

- **Destruction or concealment of evidence:** While financial crime related evidence is usually preserved and maintained for long periods of time (persons involved in transactions are likely to keep records of it), the danger of its destruction or concealment still remains and presents a potential limitation to their investigation.¹⁰⁴
- **Time-related limitations:** These mostly apply to crimes that remain undiscovered until after they have been perpetrated or have been ongoing for a long period of time. Although financial records and documents are usually stored for long periods of time, certain evidence may have been lost due to the passage of time. Another example of a time-related limitation relates to evidence gathering. More specifically, attempting to gather evidence that goes back several years in order to reconstruct a financial history can prove to be a time-consuming process for IFAs. Depending on the investigative timeline set by the LEA, this can result in limitations of their scope which can adversely affect their ability to develop further evidence and possibly damage the integrity of their report in the eyes of the court.¹⁰⁵
- **Jurisdictional limitations:** These limitations stem from the different legislative frameworks that apply in different jurisdictions and relate to multiple challenges and limitations for an IFA's investigative scope. Globalization and recent

¹⁰⁴ Ibid., 32.

¹⁰⁵ Ibid., 32.

technological innovation have allowed criminals to expand their operations both by transcending physical borders and via exploitation of the cyberspace. While LEAs around the world remain constrained within their jurisdictions, criminal enterprises are able to establish their control on larger territories and become transnational operations.¹⁰⁶ As such, LEA-embedded IFAs are restricted by the jurisdictional power of their respective agencies. While the IFA can attain the ability to expand their investigation into new territories when interagency collaboration between two LEAs of different jurisdictions is in place, they will, more likely than not, face a new set of challenges and limitations stemming from legislative differences in privacy (i.e. bank secrecy laws), asset forfeiture (i.e. constraints in place), etc. between jurisdictions.

- **Past experience:** Past professional experience of LEA-embedded IFAs has the potential to affect their development of hypotheses and general investigative scope. While it's been previously recognized that IFAs possess certain characteristics that positively affect their ability to adopt an expansive mindset when presented with an assignment, it must be acknowledged that their previous professional experiences – either as members of LEAs in a different capacity or IFA-related work outside Law Enforcement – can potentially affect their development of hypotheses and subconsciously restrict their scope of work.
- **Internal controls of business/companies:** During the stage of evidence discovery of a financial investigation and prior to conducting their forensic

¹⁰⁶ Finklea, K. (2013). CRS Report for Congress The Interplay of Borders, Turf, Cyberspace, and Jurisdiction: Issues Confronting U.S. Law Enforcement. https://www.everycrsreport.com/files/20130117_R41927_781551efd47927c3569b6212cc3be8b2bae12c1e.pdf

analysis, IFAs are likely to examine persons, as well as, business entities that are potentially involved in criminal activities. When it comes to the latter, challenges can arise from potential lack of internal controls in the investigated business entity. This is also dependent on the size of the investigated business entity, as well as, the proficiency of its owners. To help demonstrate related challenges, the following fictional scenario is presented to the reader as an example:

Case Scenario

Initial evidence gathered through means of traditional surveillance of Mr. ABC (drug trafficking suspect) has shown that he makes daily visits to his father's small convenience store as he covers the night shift. Mr. ABC's father is always seen leaving the premises within minutes of his son's arrival. Mr. ABC's visits take place around the same time of the night and are recognized to be the last stop of the suspect's daily route before heading to his residence in the early morning hours. Other stops in his route change every 2-3 days, and are part of a larger pattern. Initial investigative findings suggest that Mr. ABC heads to his father's store, after meeting with his associates to receive what is suspected to be daily drug trafficking-related proceeds.

Initial IFA Hypothesis (example): Mr. ABC is using his father's small convenience store to legitimize his illicit earnings by presenting them as cash proceeds from sales made during his night shift.

Case Facts and Associated Challenges: The store is ran by the suspect's father, who is 68 years old, and has no other employees other than his son. Initial evidence discovery has shown that the store's main source of income comes from tobacco sales (high value item), inventory records haven't been updated

in over a year and records of receipts are not kept in an orderly manner, resulting in plenty of missing documentation. The convenience store also uses an obsolete video recording system which hasn't been updated; the video quality is very low and video storage only keeps footage of the previous 8 hours. The above, make it extremely difficult for the IFA to distinguish between legitimate proceeds of the business and drug-trafficking proceeds deposited by the suspect as important documents (e.g. cash receipts, inventory records) are not available. Additionally, determination regarding potential complicity of the father in the money laundering scheme would present a significant challenge for the IFA and would be very difficult to prove in the court of law. The lack of internal controls and bookkeeping could simply be a product of poor business practices from the 68-year old. While the above might allow for prosecution under possible violations of relevant tax laws, establishing his complicity to the money laundering scheme would be highly questionable due to his documented absence from the store during the night shifts.

3.4 Recommendations

Based on the above analysis and recognition of the various challenges and limitations associated with the role of IFAs as financial investigators embedded in Law Enforcement, this academic study is able to discern a series of recommendations for both LEAs that employ or seek to employ IFAs as part of their investigative teams, as well as, LEA-embedded IFAs. Additional recommendations, stemming from findings and arguments made in previous sections are also included in this section.

3.4.1 Recommendations for Law Enforcement Agencies

Recommendation #1

LEAs are recommended to offer training to all members of their financial crime units regarding the standard practices that are applicable to IFAs in their respective jurisdictions (e.g. for Canadian LEAs that would be the IFA Standard Practices). Training is also advised to be provided to members of larger investigative teams where an IFA is present.

Recommendation #2

LEAs that seek to establish embedded IFAs as expert witnesses in the court law are recommended to employ techniques such as the establishment of “information barriers”. “Information barriers” refer to implemented organizational systems that aim to impede the flow of information between their members. Their establishment can aid LEA-embedded IFAs avoid the pitfall of developing unconscious bias and/or jeopardizing their independence by mitigating the danger of exposure to information and subjective opinions held by persons that operate outside of the financial investigation. Any communications and exchange of information that include the IFA and other members of their investigative team are to be diligently recorded and shared with the court as supplementary to their report. Implementation of the above, would allow LEA-embedded IFAs to perform their duties under circumstances that facilitate maintenance of their independence, as well as, provide supportive evidence of their autonomy in assessing matters relevant to their expertise before forming opinion.

Recommendation #3

Due to the transnational nature of crime in modern times, LEAs are recommended to coordinate, cooperate and establish common databases. Establishment of the above will enhance their ability to investigate criminal networks with a global presence such as OCGs and terrorist organizations. Furthermore, it will improve the ability of IFAs within their ranks to discover additional evidence, and track illicit proceeds and ill-gotten assets. This recommendation is also supported by ALEFA's Trafficking in Human Beings (THB) Financial Investigation Handbook as previously discussed under this study's review of Financial Investigation phases (subsection *2.1.1 (Financial Investigation: Phases)*), and more specifically, under **Phase V: Review and Dissemination**.

Recommendation #4

The use of virtual currencies has been previously identified as a criminal practice that allows criminals to conceal their activities and avoid detection. This is a product of the characteristics of virtual currencies and their respective markets (e.g. anonymity, decentralized trading, etc.) combined with the absence of a comprehensive global regulatory framework. While the latter is beyond the control of an LEA, options to increase the probability of detection of such activities exist. More specifically, Bitcoin tracking technology and specialized software that designed to link Bitcoin and recipients are available to LEAs and their employment is recommended as use of such technologies will assist IFAs in their efforts and increase their effectiveness.¹⁰⁷

¹⁰⁷ Ibid., 99.

Recommendation #5

LEAs that employ IFAs as financial investigators are recommended to leverage the wide applicability of their knowledge and expertise in multiple crime areas and not restrict them to the investigation of financial crimes. Utilization of IFAs in crime areas that are not directly related to financial crime has the potential to produce additional financial evidence – either as a direct or indirect method of proof – of the underlying crime, thus, enhancing the LEA’s ability to prosecute criminal suspects.

3.4.2 Recommendations for LEA-embedded Forensic Accountants

Recommendation #1

LEA-embedded IFAs conducting financial investigations and producing reports are advised to protect their independence at all times. They should remain fair, objective and non-partisan throughout the course of the financial investigation. From interpreting the information available to them to presenting their findings clearly, they must avoid falling into the pitfall of advocacy as determination of the criminality of the suspect is a duty that lies with the court.

Recommendation #2

LEA-embedded IFAs should closely follow amendments in legislation and regulation that can affect a financial investigation (e.g. privacy laws, bank secrecy laws, threshold reporting, etc.) within the LEA’s jurisdiction. In addition to the above, when such changes are proposed and prior to their enactment, they are advised to preemptively assess their potential impact on financial investigations and produce reports that identify potential new tools that can be incorporated in the course of a financial

investigation, as well as, potential adverse effects (e.g. limitations) that might apply to currently employed financial investigation techniques.

Recommendation #3

LEA-embedded IFAs should be familiar and keep up to date with changes in financial laws and regulations of jurisdictions that are classified as “tax havens” (refers to jurisdictions with extremely low “effective” tax rates for international investors; “tax havens”, according to some traditional definitions, also incorporate legislative provisions of financial secrecy)¹⁰⁸, as they are commonly recognized as attractive vehicles for proceeds of criminal activities due to their characteristics (e.g. little to no exchange controls, corruption, bank secrecy, etc.).¹⁰⁹ Familiarity and extensive knowledge of legislative and regulatory frameworks of such jurisdictions will allow for the identification of associated limitations in the investigative scope of the IFA in early stages of their assignment.

Recommendation #4

Due to the prior identification of virtual currencies as one of the most problematic tools – from the point of view of the IFA as a financial investigator – at the disposal of modern criminals, LEA-embedded IFAs are recommended to obtain additional expertise and a deeper understanding of virtual currency markets including applicable international and domestic regulations surrounding transactional activities and uses of virtual currencies. By doing so, their investigative scope and range of

¹⁰⁸ Wikipedia Contributors. (2019). Tax haven. Wikipedia; Wikimedia Foundation. https://en.wikipedia.org/wiki/Tax_haven

¹⁰⁹ Ibid., 76.

expertise can be expanded, potentially allowing them to develop additional evidence stemming from virtual currency-related components of criminal activities.

Recommendation #5

LEA-embedded IFAs should be familiarized with the psychological aspects of crime, so as to be able to widen their perspective; acknowledgment of underlying motive(s) can lead to the development of additional hypotheses, which in turn, can increase probability of relevant evidence discovery.

Recommendation #6

LEA-embedded IFAs should be willing to train and offer guidance to LEA personnel interested in participating in financial investigations. By doing so, they can contribute to the increase in size of an LEA's financial investigative unit, as well as, the overall quality of financial investigations conducted.

[4] LAW ENFORCEMENT-EMBEDDED VS EXTERNAL FORENSIC

ACCOUNTANTS

Within the next section, this study will review advantages associated with the use of LEA-embedded IFAs, as well as arguments against their inclusion in law enforcement with previous discussions and related findings acting as the basis for their identification.

4.1 Commentary on recent RMCP decision

The aforementioned qualitative analysis was deemed important for the purpose of this study due to the relatively recent decision of the Royal Canadian Mounted Police

(RCMP)¹¹⁰ to disband its Ontario financial crimes unit. RCMP's decision raised questions regarding its future effectiveness in financial crime enforcement due to a lack of capacity in dedicated financial crime units. This resulted in an increase in use of external IFAs in the investigation of financial crime matters as per Mr. Henry Tso (former Head of the RCMP's Financial Crimes Unit in Toronto).¹¹¹

The article states the following pertaining to the underlying rationale of the decision:

“The financial crimes officers’ integration into other units will “attain the most effective use of our existing resources,” according to the email. “This integrated approach is anticipated to increase our ability for effective operations.”

“The focus will be on the overall criminality of the file which may or may not have a financial crime component. (Financial Crime) employees can expect to be cross-trained.”¹¹²

Previous observations of this study that support the wide applicability of financial investigations, as well as, an IFA's skillset and expertise across different crime

¹¹⁰ The Royal Canadian Mounted Police (RCMP) is Canada's national police force. The RCMP is the only police force in the world that acts as a federal, provincial and municipal force. It enforces federal laws in British Columbia and handles border integrity and national security, drugs and organized crime, financial crime and international policing. More information available at: <https://www.rcmp-grc.gc.ca/fio-ofi/index-eng.htm>

¹¹¹ Oved, M. C. (2020). The RCMP is shutting down its financial crimes unit in Ontario. Here's why former top Mounties says it's a mistake. thestar.com. <https://www.thestar.com/news/investigations/2020/01/15/the-rcmp-is-shutting-down-its-financial-crimes-unit-in-ontario-heres-why-former-top-mounties-says-its-a-mistake.html>

¹¹² Ibid., 111.

areas, allow for the better understanding of the reasons why the RCMP decided to shut down the operations of Ontario's financial crime unit and reallocate its financial investigators amongst other units. It has been shown that the conduction of parallel financial investigations can lead to the discovery of additional financial components of the principal criminal activity. Therefore, it can be concluded that LEAs stand to benefit from a more "widespread" use of their financial investigator including IFAs.

However, and despite this decision's alignment with previous findings, the disbandment of the Ontario financial crimes unit raises questions over RCMP's long-term effectiveness in the prevention, detention, and investigation of "*purely*" financial crimes i.e. financial crimes that are not entrenched into larger criminal activities; are identified as standalone crimes. Ponzi schemes¹¹³ serve as an example of such a crime as, due to their characteristics, they would fall under the investigative view of a dedicated financial crime unit. Following the decision of disbandment of the Ontario financial crimes unit, there is no clarity as to which RCMP unit would conduct the criminal investigation of such cases, leaving victims of financial fraud with limited options when it comes to the criminal prosecution of fraudsters and recovery of their assets.

Furthermore, RCMP's decision inhibits its ability to associate suspected financial crimes, initially reported and/or detected as standalone, with criminal activities of larger criminal groups that partake in broader crime areas such as organized crime and terrorism. Maintaining a dedicated financial crime unit allows for the creation

¹¹³ A Ponzi scheme is a fraudulent investing scam promising high rates of return with little risk to investors. A Ponzi scheme is a fraudulent investing scam which generates returns for earlier investors with money taken from later investors. More information available at: <https://www.investopedia.com/terms/p/ponzischeme.asp>

of a “central hub” responsible for the conduction of financial investigations unrelated to known criminal entities. If initial analysis identifies links to known criminal entities or suspects that the initially investigated financial crime is a sub-component of a larger scheme, then the information can be disseminated to the relevant RCMP unit. This can instigate a parallel traditional investigation and future cooperation between the two units potentially allowing a “multidimensional” prosecution of the underlying suspects. The above, can be seen as a “mirror image” of the previously highlighted benefit of parallel financial investigations in serious crime cases under section 2 (**Forensic Accountants and Criminal Investigations**), where the detection and investigation of financial crime components was associated with the development of supplementary evidence.

Former director of the RCMP proceeds of crime unit, Garry Clement, was highly critical of the above decision and drew comparisons to a similar reorganization in British Columbia that was followed by “*an explosion of money laundering in casinos, real estate and luxury cars*”. Clement additionally expressed his doubts that RCMP is cognizant of the fact that investigating financial crime requires the utilization of individuals with a “*very high degree*” of expertise, in confirmation of this study’s previous findings. The above critiques are substantiated by two reports released by Peter German, former deputy commissioner of the RCMP, which documented the “*enormous size*” of money laundering activities in British Columbia and the complete lack of relevant expert investigators amongst the federal police. German has subsequently warned the RCMP that the elimination of economic crime from its agenda

of priorities make Canada's economy susceptible to dangers associated with the rising criminal threats of fraud and money laundering.¹¹⁴

From the above considerations and critical commentaries of former high ranking officials of the RCMP, it becomes apparent that while the integration of financial investigators amongst different RCMP units can expand their investigative scope and increase their efficiency when focusing on the highest threats, it does not warrant the disbandment dedicated financial crime units and reallocation of their human resources. Considering German's revelation regarding the lack of financial expertise amongst federal police officers following a similar reorganization in British Columbia, this study is able to discern that RCMP's decision is indeed inhibitive to its capacity to investigate financial crime and financial components of crimes in a broad sense. As such, the following three recommendations are made:

1. Disbanded financial crime units should be re-established;
2. Where not present, provincial dedicated economic crime units should be established; and
3. Integration of IFAs within all units of the RCMP should be implemented.

The above recommendations are supported by commissioner Austin F. Cullen's report on money laundering activities in the province of British Columbia, within which several key areas surrounding money laundering activities are extensively assessed,

¹¹⁴ Ibid., 111.

leading up to the recommendation of creation of a “*dedicated provincial money laundering intelligence and investigation unit*”.¹¹⁵

4.2 Advantages associated with the use of LEA-embedded IFAs

- **Access to information:** As members of investigating LEAs, IFAs have access to a wider range of information, as opposed to their external counterparts. While both engage in the preliminary analysis of relevant case facts to compile a list of sources of information that is potentially relevant to their financial investigation, LEA-embedded IFAs have the authority to access additional informational databases. More specifically, they have direct access to their agency’s criminal database, as well as, the criminal databases of cooperating LEAs on a national and/or international level. Therein lies a considerable advantage associated with their use in the financial investigation of criminal cases when directly compared to the informational access of their external counterparts. LEA databases contain confidential, and, potentially, otherwise inaccessible information that can prove critical in hypotheses development and during the process of evidence discovery through further forensic analysis. For example, when investigating a criminal suspect, the LEA-embedded IFA can consult cooperating LEAs or other governmental agencies and obtain previously unknown information regarding their international associates, thus allowing them to potentially identify new investigative avenues. In sharp contrast, an external IFA might not come in possession of such information due

¹¹⁵ Cullen, A. F. (2022). Commission of Inquiry into Money Laundering in British Columbia The Honourable Austin F. Cullen Commissioner Final Report. <https://www.cullencommission.ca/files/reports/CullenCommission-FinalReport-Full.pdf>

to confidentiality restrictions that might apply (e.g. information cannot be shared with individuals that operate outside of Law Enforcement). An additional example that helps demonstrate the aforementioned informational advantage of LEA-embedded IFAs against external IFAs, lies with their access to Financial Transactions and Reports Analysis Centre of Canada (FINTRAC) reports of suspicious financial activities. FINTRAC is the Canadian federal agency responsible for receiving and analyzing financial information potentially connected to money laundering threats.¹¹⁶ Their analysis is subsequently communicated to law enforcement of relevant jurisdictions for further investigation. By utilizing internal IFAs for the financial investigation of such reports, the respective recipient LEAs stand to increase their effectiveness in detecting money laundering activities, as well as, in identifying and apprehending the perpetrators.

- **Transnational investigating ability:** LEA-embedded IFAs have the potential to maintain their authority and operate on a global level by participating in cross-border operations with cooperating LEAs of different jurisdictions. As such, where criminal activities are suspected or discovered to have surpassed jurisdictional limits, they can potentially hold a significant advantage over their external counterparts whose investigative abilities (evidence gathering, access to banking documents, etc.) can be limited by foreign legislation and their employer's operational reach.
- **Time efficiency:** Crime investigations can face time-related restrictions and limitations on multiple fronts (e.g. related to information collection, suspect

¹¹⁶ Ibid., 115

apprehension time limits, etc.). The employment and use of external IFAs in Canada, involves additional steps that pertain to engagement acceptance as described within the IFA Standard Practices (paragraphs 200.01, 200.02¹¹⁷). LEA-embedded IFAs, on the other hand, engage in the financial investigation of suspected criminal activities as part of their mandate (i.e. role responsibilities) as members of an LEA without the need to establish parameters as part of an initial engagement acceptance process or the need to prepare an engagement letter, thus, saving precious time.

- **Past experience:** LEA-embedded IFAs can accumulate and leverage additional experience from their continuous involvement in criminal investigations. External IFAs, as members of multinational companies or smaller boutique firms, are most likely to have cultivated their skills by participating in assignments relating to civil processes. As such, when it comes to criminal matters, they are likely to possess lesser experience than LEA-embedded IFAs.
- **“In-house” expertise:** The presence and utilization of LEA-embedded IFAs allow their respective LEAs to detect potential financial components of criminal activities at an early stage of investigation. Leveraging their expertise and analytical prowess can guide further investigative actions towards specific identified areas of interest of large-scale criminal operations, and, as previously established, uncover complex financial components of their activities.
- **Perspective and mindset:** IFAs differ from other members of an LEA in terms of their investigative mindset and perspective. IFAs are able to apply their knowledge and expertise of accounting and business operations in their

¹¹⁷ Ibid., 79.

financial investigation of criminal activities. Unlike other investigators, they are able to draw inferences, connect pieces of information and understand the operations of criminals by focusing their attention on the ways they maximize their profit from engaging in illicit activities. In addition to the above, their education, training and past experiences have taught them to always adopt a neutral perspective when engaging in any assignment; this extends to criminal investigations. Their presence within LEAs can instil the notion maintaining neutrality throughout the course of an investigation amongst its agents, thus, enabling them to conduct unprejudiced investigations and avoiding the pitfall of engaging in malpractice and questionable tactics with a view to confirm potential unconscious and preconceived biases regarding a suspect's criminality.

- **Deterrence:** IFAs' presence amongst LEA ranks can also act as a deterrent in regards to future crime. Research has shown that the certainty of apprehension is an effective deterrent of crime.¹¹⁸ The knowledge, expertise and formerly identified skills offer LEAs additional ways to increase their overall effectiveness in the detection and apprehension of criminals, thus cultivating an increased feeling of certainty of getting caught amongst them. In addition to the above, IFAs' presence within LEAs will set a higher "barrier to entry" in the realm of criminal activities as aspiring threat actors will need to commit increasingly more resources in their efforts to conceal their financial footprints due to the heightened ability of LEAs to identify and track proceeds of crime.

¹¹⁸ Nagin, D. S. (2013). Deterrence in the Twenty-First Century. *Crime and Justice*, 42(1), 199–263. <https://doi.org/10.1086/670398>

Last but not least, long-standing criminal enterprises' and individuals' profit margins from illicit activities also stand to be affected as IFAs and LEAs gradually increase their detective, investigative, apprehensive and tracing and asset recovery capabilities, potentially leading to an overall gradual reduction in crime.

4.3 Arguments against the use of LEA-embedded IFAs

- **Independence and neutrality:** This study has previously highlighted the importance of IFAs being able to maintain their independence in accordance with the IFA Standard Practices. External IFAs are likely to encounter less issues with maintaining their independence in the eyes of the tribunal as they share no affiliation to any party involved in the criminal investigation.
- **Ability to serve as expert witnesses:** In continuation of the above, it becomes clear that externally sourced IFAs are less likely to face adversities when it comes to their ability to serve as expert witnesses within the court of law. LEA-embedded IFAs are expected to face rigorous questioning regarding their independence from both the trier of fact and the opposing counsel. As such, their potential to serve as expert witnesses on behalf of the LEA and establishing their report as evidence of criminality of the suspect is associated with a higher risk of rejection from the court on the grounds of lack of independence due to their position within the agency.
- **Reliance on the work of industry experts:** LEA-embedded IFAs operate alongside colleagues that might lack the necessary expertise required to perform a forensic analysis of financial information at the same level as the IFA due to differences in perspective and abilities that stem from their prior experiences,

education and training. As such, and to abide by the IFA Standard Practices that relate to reliance on the work of others, the LEA-embedded IFA must allocate additional time for the oversight of their colleagues. In contrast, external IFAs within the private sector (e.g. MNP LLP) or the public sector (i.e. Forensic Accounting Management Group (FAMG)) operate as members of teams that solely focus on forensic accounting matters and, as such, have learned to operate in accordance with the IFA Standard Practices. They are, thus, able to minimize the allocation of time and human resources in the oversight of the work of their members resulting in increased efficiency.

- **IFA Standard Practices:** By retaining external IFAs to conduct parallel financial investigations of criminal cases, LEAs and their agents exonerate themselves from the requirement to abide by the IFA Standard Practices; a previously recognized challenge associated with the utilization of LEA-embedded IFAs.
- **Budgetary and workload concerns:** Financial investigations conducted by IFAs require major commitments of resources in terms of personnel, time and money. By seeking the help of external IFAs for the conduction of financial investigations, LEAs eliminate their exposure to financial dangers (e.g. exceeding budgetary restrictions) and workforce-related dangers (e.g. exceeding working time regulations).

[5] CONCLUSION

Through extensive research and qualitative analysis this study was able to establish that the main function of LEA-embedded IFAs is to conduct financial investigations of criminal activities across several different broad crime areas.

Their inclusion in criminal investigations was associated, via the use of examples, with the potential of discovering further supportive financial evidence of the underlying criminal activity (either as a direct or indirect method of proof), as well as, with the potential to identify new avenues for the prosecution of individuals and groups that engage in criminal activities. The necessity of their inclusion in criminal investigations is further supported by the continuously increasing necessity of parallel financial investigation in all serious crime cases¹¹⁹, as well as, the higher complexity of modern criminal financial practices employed by high-level criminal networks which necessitates the use of highly skilful individuals as law enforcement operatives.

Furthermore, IFAs were recognized to possess unique advantages in the financial investigation of several crime areas that stem from their novel – within the context of law enforcement – expertise and experience in the realm of accounting and business operations. Their suitability to perform well in such roles is also supported by empirical studies that have been able to identify that IFAs possess traits and characteristics regarded as necessary in the context of criminal investigations.

Following the above, certain challenges and limitations associated with both the IFA's function within an LEA, as well as, modern and traditional criminal practices that are problematic from their investigative perspective were highlighted. These considerations instigated further commentary including a range of recommendations for their mitigation for both the IFA and their employing LEA.

¹¹⁹ Financial investigations. (2022, December 18). Migration and Home Affairs. https://home-affairs.ec.europa.eu/policies/internal-security/organised-crime-and-human-trafficking/financial-investigations_en

In its final section, this study focused its attention on the recent RCMP decision to shut down their dedicated financial crime unit in Toronto. Potential repercussions of the decision were discussed by leveraging arguments of previous analyses, as well as, reviewing statements of high ranking officials before expressing that RCMP's decision and approach increases the Canadian economy's susceptibility to economic crime. Lastly a detailed review of advantages associated with the potential use of LEA-embedded IFAs, as well as, arguments against them based on previous discussions was performed leading up to the below conclusion.

All in all, this qualitative study concludes that LEAs stand to reap significant benefits from the inclusion of IFAs within their ranks as financial investigators in their efforts to detect criminal activities, identify and apprehend persons of interest, prosecute criminal actors, and trace and recover proceeds for crime. Furthermore, their integration within Law Enforcement introduces highly capable professionals that possess unique traits and characteristics which can positively affect the overall operative ethos of the LEA. At the same time, LEAs must be cognizant that their presence is potentially (where applicable) associated with increased complexity and higher costs that stem from the potential introduction of a new set of investigating, operating, and reporting rules and an increase in law enforcement personnel. Last but not least, LEAs are recommended to continuously assess (case by case) an embedded IFA's ability to serve as an expert witness and acknowledge that the use of external experts might be warranted in certain cases in order to safeguard the LEA-embedded IFA's in-court reputation (which directly affects their future ability to serve as an expert witness) as well as their own reputation and investigative efforts.

In conclusion, and as demonstrated throughout this paper, the skills and education an IFA possesses are transferable to any LEA in the world and the inclusion of IFAs in criminal investigations is deemed as necessary across LEAs on a global level, including in Canada.

APPENDIX 1

Selected paragraphs taken from Standard Practices For Investigative and Forensic Accounting Engagements (2006)

Source: <https://www.musktratfallsinquiry.ca/files/P-00244.pdf>

Paragraph 100.08 (Definition of IFA Engagements): *“Investigative and forensic accounting engagements” are those that:*

- (a) require the application of professional accounting skills, investigative skills, and an investigative mindset; and*
- (b) involve disputes or anticipated disputes, or where there are risks, concerns or allegations of fraud or other illegal or unethical conduct.”*

Paragraph 100.09 (Definition of IFA Engagements): *“Professional accounting skills” require the following sub-components:*

- (a) an understanding of how business activity is documented, recorded, reported, managed and controlled,¹²⁰*
- (b) the ability to identify, obtain, examine and evaluate relevant information;*
- (c) the ability to quantify the financial impact of actual or expected transactions or events;*
- (d) the ability to perform and interpret relevant analyses of information;*
- (e) the ability to document and explain business information and the results of the*

¹²⁰ For the purposes of these IFA standard practices, information does not become evidence until admitted by a Tribunal as such. Accordingly, these standard practices do not refer to the determination of what constitutes admissible evidence. “Tribunal” is defined to include any trier of fact including, without limitation, a judge, arbitrator, umpire, commissioner, justice of the peace or other officer or person having by law or by consent of the parties the authority to hear, receive and examine evidence or to conduct any alternative dispute resolution process.

financial analyses for decision-making purposes; and

(f) the ability to render relevant and appropriate opinions and conclusions based on the findings and results of the work performed.”

Paragraph 100.10 (Definition of IFA Engagements): *““Investigative skills” require the following sub-components:*

(a) an understanding of the context within which the engagement is to be conducted (for example, the Tribunal process, laws, regulations, contracts or policies relevant to the engagement);

(b) the ability to identify, obtain, examine and assess information relevant to the engagement;

(c) the ability to analyze and compare various types and sources of information;

(d) an understanding of the types of information that would assist in establishing motivation, intent and bias;

(e) an understanding of the ways in which information could be fabricated or concealed;

(f) an understanding that information collected and the work performed, including the work and information of others,² may become subject to disclosure and be tendered as evidence; and

(g) the ability to document and present investigative findings and conclusions for decision-making purposes.

Paragraph 100.15 (Application of the Definition): *“At its boundaries, a skills-based definition for IFA engagements will likely overlap with definitions for other disciplines, such as assurance, information technology, business valuation, corporate finance, tax, private investigation, and insolvency and restructuring. To the extent that*

such engagements include components that meet the definition of IFA engagements, such components would become IFA engagements and the individuals performing such components must follow these IFA standard practices as well as any professional standards that may apply.”

Paragraph 100.17 (Applicability of IFA Standard Practices): *“These IFA standard practices should be applied to all IFA engagements, and to work performed by all individuals on such engagements.”*

Paragraph 100.18 (Applicability of IFA Standard Practices): *“In the context of this document, “work” means the work of IFA practitioners, including that performed by other individuals, within the domain of the IFA engagement.”*

Paragraph 200.01 (Engagement Acceptance – General): *“IFA practitioners should establish the parameters of the engagement with their client¹²¹ and document these parameters, including their role, the purpose(s) and general scope of the work to be performed, the nature of any report, and, where applicable, the terms and conditions for the IFA engagement. These parameters should be established as part of the initial engagement acceptance.”*

Paragraph 200.02 (Engagement Acceptance – General): *“Where possible, IFA practitioners should prepare or obtain an engagement letter¹²² for each engagement where the engagement parameters described in 200.01 are documented.”*

¹²¹ In the context of these IFA standard practices, “client” means an external third party or the appropriate internal authority.

¹²² For internal or legislative engagements, the engagement letter may be replaced by a “memo to file” which should include the items described in 200.01.

Paragraph 400.12 (Conflicting Information and Alternative Theories): *“IFA practitioners should review all information received during an IFA engagement, and consider its relevance, reliability, reasonableness, completeness and consistency with other known engagement information.”*

Paragraph 400.12 (Conflicting Information and Alternative Theories): *“IFA practitioners should consider and address reasonable alternative theories, approaches and methodologies that may be relevant to their work.*

Paragraph 400.15 (Reliance on the Work of Others): *“IFA practitioners should evaluate the nature and level of intended reliance on the work and/or information of others. The results of this evaluation will impact the extent to which the following factors need to be assessed:*

- (a) their knowledge, expertise and competence relevant to the IFA engagement;*
- (b) their business and professional reputation;*
- (c) their objectivity and independence in relation to the IFA practitioners’ requirements;*
- (d) the source of their information;*
- (e) the overall reasonableness of their assumptions, methodologies, findings and conclusions; and*
- (f) the relevance of their work and information to the engagement objectives.*

If this evaluation identifies inadequacies or a high level of risk, IFA practitioners should perform additional procedures to address or resolve such factors. If IFA practitioners are not satisfied with regard to these factors, they should either not rely on the work of the individual(s) concerned or disclose their concerns.”

Paragraph 400.16 (Reliance on the Work of Others): *“There should be an appropriate understanding between IFA practitioners and others on whom they are relying concerning their respective roles and responsibilities relating to the IFA engagement. IFA practitioners and these others should communicate sufficiently to minimize misunderstandings that could cause practitioners to misinterpret the work and/or information of others.”*

Paragraph 600.04 (Reporting – General): *“IFA practitioners should present their findings and conclusions in an objective and unbiased manner.”*

Paragraph 600.09 (Special Reporting Circumstances): *“Where the independence of the IFA practitioner may reasonably be questioned, the following should be disclosed:*

- (a) the role of the practitioner;*
- (b) the relationship of the practitioner to any of the involved parties; and*
- (c) the IFA practitioners’ conclusion regarding whether they are independent.”*

Paragraph 700.01 (Expert Testimony – Role of IFA Expert Witnesses): *““IFA expert witnesses” are IFA practitioners who provide expert testimony to a Tribunal. Tribunals generally allow expert testimony to provide **impartial and objective assistance** in understanding matters beyond the expertise of the trier of fact. Given the significance of such reliance, Tribunals have consistently required of expert witnesses a level of **transparency in their decision-making and impartiality in their testimony** that satisfies the requirement that they not be seen as advocating for one side, i.e., that **their primary duty is to the Tribunal.**”*

Paragraphs 700.02(a) and 700.02(c) (Expert Testimony – Role of IFA Expert

Witnesses): *“IFA practitioners should comply with the following IFA standard practices when intending to serve as IFA expert witnesses:*

(a) Expert witnesses have a duty to provide independent assistance to the Tribunal by way of objective unbiased testimony in relation to matters within their expertise.

(c) Expert witnesses should never assume the role of an advocate.”

REFERENCES

2022 Interpol Global Crime Trend Summary Report. (2022). INTERPOL.

<https://www.interpol.int/en/content/download/18350/file/Global%20Crime%20Trend%20Summary%20Report%20EN.pdf>

Albanese, J. S. (2001). The prediction and control of organized crime: A risk assessment instrument for targeting law enforcement efforts. *Trends in Organized Crime*, 6(3-4), 4–29. <https://doi.org/10.1007/s12117-001-1002-x>

Annex II: The definition of trafficking in persons and the mandate for the Global Report. (n.d.). United Nations Office on Drugs and Crime (UNODC).

https://www.unodc.org/documents/data-and-analysis/glotip/Annex_II_-_Definition_and_mandate.pdf

Beare, M. E. (2012). *Encyclopedia of transnational crime & justice*. Sage Publications.

Binns, C., & Sackman, B. (2020). *The art of investigation*. CRC Press, Taylor & Francis Group.

Broadhead, S. (2018). The contemporary cybercrime ecosystem: A multi-disciplinary overview of the state of affairs and developments. *Computer Law & Security Review*, 34(6), 1180–1196. <https://doi.org/10.1016/j.clsr.2018.08.005>

Bureau of Justice Statistics. (2021). *Law Enforcement*. Bureau of Justice Statistics.

<https://bjs.ojp.gov/topics/law-enforcement>

Cambridge Dictionary. (n.d.). TRAFFICKING | meaning in the Cambridge English Dictionary. Cambridge.org.

<https://dictionary.cambridge.org/dictionary/english/trafficking>

Cambridge Dictionary. (2019). TRADE | meaning in the Cambridge English Dictionary. Cambridge.org. <https://dictionary.cambridge.org/dictionary/english/trade>

Cash Intensive Businesses Audit Techniques Guide - Chapter 5 - Examination Techniques. (n.d.). In https://www.irs.gov/pub/irs-utl/cashchapter5_210639.pdf. Internal Revenue Service (IRS).

Chong, A., & Lopez-De-Silanes, F. (2015). Money Laundering and Its Regulation. *Economics & Politics*, 27(1), 78–123. <https://doi.org/10.1111/ecpo.12051>

Community Safety and Policing Act, 2019. (n.d.). Ontario.ca. <https://www.ontario.ca/laws/statute/19c01>

Crumbley, D. L., Fenton, E. D., & Heitger, L. E. (2019). *Forensic and Investigative Accounting* (9th ed.). Cch Incorporated.

Cullen, A. F. (2022). Commission of Inquiry into Money Laundering in British Columbia The Honourable Austin F. Cullen Commissioner Final Report. <https://www.cullencommission.ca/files/reports/CullenCommission-FinalReport-Full.pdf>

Davis, C., Farrell, R., & Ogilby, S. (n.d.). Characteristics and Skills of the Forensic Accountant. In <http://thefraudgroupllc.com/tools/library/documents/forensic.pdf>. AICPA.

DiGabriele, J. A. (2008). An Empirical Investigation of the Relevant Skills of Forensic Accountants. *Journal of Education for Business*, 83(6), 331–338.

<https://doi.org/10.3200/joeb.83.6.331-338>

DiGabriele, J. A. (2009). Fishbowl: the Forensic Accountant: A closer look at the skills Forensic Accounting education should emphasize. *Forensic Examiner*, 18(2), 77–79.

Economic Crime. (n.d.). Europol. <https://www.europol.europa.eu/crime-areas-and-statistics/crime-areas/economic-crime>

Eisenberg, P. (2018). Application of the Net Worth Method in Forensic Accounting Investigations. *SSRN Electronic Journal*, 4(10). 1.

<https://doi.org/10.2139/ssrn.3324282>

Elliott, J. K. (2019, June 20). QuadrigaCX timeline — and the many questions still to be answered | Globalnews.ca. Global News.

<https://globalnews.ca/news/5411203/quadrigacx-timeline-and-the-many-questions-still-to-be-answered/>

financial investigation Definition. (n.d.). Law Insider.

<https://www.lawinsider.com/dictionary/financial-investigation>

Financial investigations. (2022, December 18). Home-Affairs.ec.europa.eu.

https://home-affairs.ec.europa.eu/policies/internal-security/organised-crime-and-human-trafficking/financial-investigations_en

Finklea, K. (2013). CRS Report for Congress The Interplay of Borders, Turf, Cyberspace, and Jurisdiction: Issues Confronting U.S. Law Enforcement.

https://www.everycrsreport.com/files/20130117_R41927_781551efd47927c3569b6212cc3be8b2bae12c1e.pdf

Forensic Accountant. (2023). Federal Bureau of Investigation (FBI).

https://fbijobs.gov/sites/default/files/2023-04/career_forensicaccountant.pdf

Forensic Accountants (Band 6 - 8) | AFP Jobs. (n.d.). Jobs.afp.gov.au.

<https://jobs.afp.gov.au/job-opportunities/details/forensic-accountants-band-6-8-6996>

Gaeta, A. M., & Sitnick, E. A. (1999). Reliability and Admissibility Under Daubert.

<https://cyber.harvard.edu/daubert/ch3.htm>

Garratt, R., & Shin, H. (2023). BIS Bulletin No 73 Stablecoins versus tokenised deposits: implications for the singleness of money.

<https://www.bis.org/publ/bisbull73.pdf>

Gottschalk, P. (2010). Categories of financial crime. *Journal of Financial Crime*, 17(4), 441–458. <https://doi.org/10.1108/13590791011082797>

Government of Canada, Department of Justice, Electronic Communications. (2015).

4. Organized Crime Control Strategies and Their Effectiveness - Assessing the Effectiveness of Organized Crime Control Strategies: A Review of the Literature.

Justice.gc.ca. https://www.justice.gc.ca/eng/rp-pr/csj-sjc/jsp-sjp/rr05_5/p5.html

Gurule, J. (2008). Unfunding Terror: The Legal Response to the Financing of Global Terrorism. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1135796>

Hagan, F. E. (2006). “Organized crime” and “organized crime”: Indeterminate problems of definition. *Trends in Organized Crime*, 9(4), 127–137.

<https://doi.org/10.1007/s12117-006-1017-4>

Interpol. (2017). Organized crime. Interpol.int.

<https://www.interpol.int/en/Crimes/Organized-crime>

Irwin, A. S. M., & Dawson, C. (2019). Following the cyber money trail. *Journal of Money Laundering Control*, 22(1), 110–131. <https://doi.org/10.1108/jmlc-08-2017-0041>

Kahan, S. (2006). Sherlock Holmes enters accounting: Dramatic increase in fraud brings more CPA sleuths into the industry. *Accounting Today*, 20(8). 1-1.

Legal Requirements for Qualified Expert Evidence - Criminal Law Notebook. (n.d.). Criminalnotebook.ca.

http://criminalnotebook.ca/index.php/Legal_Requirements_for_Qualified_Expert_Evidence

Manning, G. A. (2011). *Financial investigation and forensic accounting* (3rd ed.). CRC Press.

Murray, K. (2010). Dismantling organised crime groups through enforcement of the POCA money laundering offences. *Journal of Money Laundering Control*, 13(1), 7–14. <https://doi.org/10.1108/13685201011010173>

Nagin, D. S. (2013). Deterrence in the Twenty-First Century. *Crime and Justice*, 42(1), 199–263. <https://doi.org/10.1086/670398>

OSC publishes investigative report of QuadrigaCX. (2020, June 11). OSC.

<https://www.osc.ca/en/news-events/news/osc-publishes-investigative-report-quadrigacx>

Oved, M. C. (2020, January 15). The RCMP is shutting down its financial crimes unit in Ontario. Here's why former top Mounties says it's a mistake. Thestar.com.

<https://www.thestar.com/news/investigations/2020/01/15/the-rcmp-is-shutting-down-its-financial-crimes-unit-in-ontario-heres-why-former-top-mounties-says-its-a-mistake.html>

Pasco, G. A. (2012). Criminal Financial Investigations: The Use of Forensic Accounting Techniques and Indirect Methods of Proof (2nd ed.). CRC Press, an imprint of Taylor and Francis.

Prüm II Proposal: Motion – Dáil Éireann (33rd Dáil) – Tuesday, 26 Apr 2022 – Houses of the Oireachtas. (2022, April 26). Www.oireachtas.ie; Houses of the Oireachtas. <https://www.oireachtas.ie/en/debates/debate/dail/2022-04-26/15/>

Regtering, R. (2021, November 10). Analysis of case law on the indirect method of proof. AMLC.EU. <https://www.amlc.eu/analysis-of-case-law-on-the-indirect-method-of-proof/>

Reid, A. S. (2017). Financial Crime in the Twenty-First Century: The Rise of the Virtual Collar Criminal. White Collar Crime and Risk, 231–251. https://doi.org/10.1057/978-1-137-47384-4_9

Shecter, B. (2020, June 11). OSC investigation reveals Quadriga mystery was old-fashioned fraud wrapped in a new technology. Financialpost. <https://financialpost.com/technology/blockchain/osc-investigation-reveals-quadriga-mystery-was-old-fashioned-fraud-wrapped-in-a-new-technology>

Shelley, L. (n.d.). Illicit Trade and Our Global Response. Afsa.org. <https://afsa.org/illicit-trade-and-our-global-response>

Siegel, J. A., Saukko, P. J., & Houck, M. M. (2013). Encyclopedia of forensic sciences. Elsevier, Academic Press.

Standard Practices for Investigative and Forensic Accounting Engagements. (n.d). IFA Alliance. Retrieved May 30, 2023, from <https://www.muskratfallsinquiry.ca/files/P-00244.pdf>

The Changing Nature of Crime And Criminal Investigations. (2018). Police Executive Research Forum. <https://www.policeforum.org/assets/ChangingNatureofCrime.pdf>

Trafficking in Human Beings (THB) Financial Investigation Handbook. (2018). Association of Law Enforcement Forensic Accountants (ALEFA). Available via download on <http://www.alefa.eu/>

United States Department of the Treasury Financial Crimes Enforcement Network Informal Value Transfer Systems. (n.d.). <https://www.fincen.gov/sites/default/files/advisory/advis33.pdf>

UNODC AND PARTNERS ORGANIZED A THREE-DAY FOUNDATION COURSE ON INVESTIGATIONS OF THE TERRORISM FINANCING IN TURKMENISTAN. (n.d.). Www.unodc.org; United Nations Office on Drugs and Crime. <https://www.unodc.org/centralasia/en/unodc-and-partners-organized-a-three-day-foundation-course-on-investigations-of-the-terrorism-financing-in-turkmenistan.html>

Virtual Assets Red Flag Indicators of Money Laundering and Terrorist Financing. (2020). Www.fatf-Gafi.org. <https://www.fatf-gafi.org/en/publications/Methodsandrends/Virtual-assets-red-flag-indicators.html>

What are the Proceeds of Crime? (n.d.). DeltaNet. <https://www.deltanet.com/knowledge-base/compliance/anti-money-laundering/what-are-the-proceeds-of-crime/>

What Is Forensic Accounting - Financial Forensics Academy. (n.d.). <http://www.financialforensicsacademy.com/WhatIs/>

Why is cash still a king? A strategic Report on the use of cash by Criminal groups as a facilitator for money laundering. (n.d.). Europol. <https://www.europol.europa.eu/publications-events/publications/why-cash-still-king-strategic-report-use-of-cash-criminal-groups-facilitator-for-money-laundering>

Wikipedia Contributors. (2019). Tax haven. Wikipedia; Wikimedia Foundation. https://en.wikipedia.org/wiki/Tax_haven