Abstract

Technology has positively contributed to the creation of financial markets and the facilitation of payments globally. The effective use of robust technology could enhance the consistent enforcement of financial market laws by curbing financial crimes in any country. This in turn would enhance the integrity of financial markets and promote the viability of financial markets. In relation to this, it appears that Zimbabwe has struggled to comply with international measures to combat money laundering and the financing of terrorism (AML/CFT) since it has poor financial market laws which are inconsistently enforced due inter alia to its poor money laundering detection mechanisms and inadequate resources. For instance, Zimbabwe has to date failed to make satisfactory progress to adopt and enforce adequate risk mitigation measures against money laundering practices in accordance with the Financial Action Task Force (FATF) recommendations. This is evidenced by the increased incidence of money laundering in Zimbabwean financial markets. Furthermore, the inconsistent enforcement of financial market laws has resulted in poor liquidity and the recent suspension of the Zimbabwe Stock Exchange (ZSE). The viability and integrity of the Zimbabwean financial market has thus been compromised. This article discusses the integration and use of robust technology in the Zimbabwean financial market to curb financial crimes such as money laundering and bank fraud. The adequacy of financial market laws and/or regulations will also be discussed vis-à-vis their consistent enforcement by relevant bodies such as the Financial Intelligence Inspectorate Evaluation Unit (FIU) in Zimbabwe. This is done to evaluate the use of technology to curb money laundering and promote a viable economy and financial market in Zimbabwe. It is submitted that the relevant authorities should promote the effective use of technological inventions like artificial intelligence (AI) and machine learning to curb money laundering, bank fraud and other related financial crimes in Zimbabwe.

Keywords

Technology, financial markets, terrorist financing, money laundering, financial crimes.
1 Introductory remarks

A financial market is a marketplace where the creation and trading of financial assets, securities and/or financial instruments such as shares, debentures, bonds, derivatives and currencies take place. In other words, the types of financial markets include stock, bond, commodities, and derivatives markets. Generally, financial markets bridge the gap between savings and investments for most economies worldwide through facilitating the contractual savings industry to organise long-term savings from small individual family units into long-term investments. In most countries globally, it appears that technology has made a significant contribution to the growth of the financial markets growth and the viability of the economies. Additionally, the extensive worldwide use of computers, the Internet and other digital technology has promoted the perpetuation of financial crimes including money laundering and fraud through the swift and obscure transfer of funds. This flows from the fact that the Internet allows for large anonymous monetary transactions to be carried out by individuals at a fast rate.

---

1 Adambekova and Andekina 2013 WASJ 14-15; Mishkin Economics of Money 52.
2 Darškuvienė Financial Markets 14; see the related discussion by Sandra 2021 IJRESM 1-2.
3 Sailakshmi 2020 IJRAM 519.
4 Salehi 2008 ZIREB 102-104; O’Reilly Investment Industry 6-7; Adom and Elbahnasawy 2014 BJEMT 1596-1597; Cavallo and Serebrisky 2016 Saving for Development 49; Narayanaswamy, Blitzer and Carvajal 2017 https://openknowledge.worldbank.org/bitstream/handle/10986/30354/112692-BRI-EM-compass-Note-28-Capital-Markets-FINAL-1-26-FINAL2.pdf?sequence=1 1-2; Clark, Reed and Sunderland 2018 Land Use Policy 336.
5 Ductor and Grechyna 2015 IREF 11-15; Miki 2020 Economic Development 134.
6 Troy 2019 Am Crim L Rev 940-941; Sanusi, Rameli and Isa 2015 Procedia Economics and Finance 108. Fraud is the deliberate misrepresentation, concealment and use of illegal means to obtain money, assets or any other financial benefit owned by a financial institution or to obtain money from depositors by fraudulently posing as a bank or any other financial institution.
7 De Sanctis Technology-enhanced Methods of Money Laundering 1-2; Morris-Cotterill 1999 Int Rev Law Comput Tech 212-215.
8 De Sanctis Technology-Enhanced Methods of Money Laundering 2.
Money laundering is generally defined as the channelling of cash or other funds generated from illegal activities through legitimate financial institutions and businesses to conceal the original illicit source of such funds.\(^9\) In other words, money laundering is the act of obscuring the origins of money usually illegally obtained through the provision of an apparently legal source.\(^10\) Information technologies including computers and other specialised digital devices which have sometimes promoted money laundering through the swift movement of illegally obtained funds, often amongst foreign banks and/or legitimate businesses.\(^11\)

Money laundering may take the form of placement, layering and/or integration.\(^12\) Anyone who makes and/or accrues any form of benefit from any criminal conduct like corruption may be regarded as committing an act of money laundering.\(^13\) Placement is the first stage of money laundering, wherein the money launderer introduces the illegally obtained profits into the formal financial system.\(^14\) This is often done by breaking up large sums of money into less conspicuous smaller sums before depositing them into financial institutions.\(^15\) This is done to ward off any suspicions that would otherwise arise if such money was deposited by the money launderer in large sums. Layering relates to the stage where the money launderer divides, blurs and moves the laundered money further away from the illegal source.\(^16\) This may be done through the purchase of investment instruments or by transferring the money to jurisdictions which do not cooperate with or comply with anti-money laundering investigations and legislation such as international anti-money laundering/combating of the financing of terrorism.

---

\(^9\) Achim and Borlea *Economic and Financial Crime* 20-21; Sullivan *Anti-Money Laundering in a Nutshell* 2, defines money laundering as the practice of integrating the proceeds of crime into the legitimate mainstream of the financial sector by concealing its origin.

\(^10\) Ferguson *Global Corruption* 6; Mulig and Smith 2004 *Internal Auditing* 22-23; Sarigul 2013 *IJBMS* 287-288; OECD *Money Laundering and Terrorist Financing Awareness Handbook* 15; Chau and Van Dijck Nemcsik *Anti-Money Laundering Transaction Monitoring Systems Implementation* 2; FATF 2020 https://www.fatf-gafi.org/faq/moneylaundering/; Reserve Bank of Zimbabwe 2017 https://www.fiu.co.zw/wp-content/uploads/2017/07/AML-CFT-Guidelines-for-Casinos-2015-final.pdf 4.

\(^11\) Mikeladze 2018 *Int J Inf Theories Appl* 190; Gilmour 2020 *JMLC* 518.

\(^12\) Irwin, Choo and Liu 2012 *JMLC* 87; Cox *Handbook of Anti-Money Laundering* 8; Ginting 2020 *Veteran L Rev* 5-6.

\(^13\) Menz 2019 *JMLC* 621; see the related discussion by Sittlington and Harvey 2018 *Crime, L & Soc Change* 422; McDowell and Novis 2001 *Economic Perspectives* 6.

\(^14\) Lokanan and Nasimi 2020 *JMLC* 770; Sarigul 2013 *IJBMS* 289; Teichmann and Falker 2020 *JMLC* 3.

\(^15\) Sarigul 2013 *IJBMS* 289; FATF 2020 https://www.fatf-gafi.org/faq/moneylaundering/.

\(^16\) Nurhadiyanto 2020 *APFJ* 71; Dobrowolski and Sułkowski 2020 *Sustainability* 6.
(AML/CFT) measures. Lastly, integration refers to the process where the money launderer moves the previously laundered money into the economy, usually through financial institutions, so that the money appears to originate from his or her legitimate business activities.

Money laundering is a global phenomenon and its occurrence in Zimbabwe is no exception. It would be a threat to the integrity and functioning of the financial sector of any country. Criminals may easily finance terrorist activities and/or criminal businesses through money laundering globally. However, it is submitted that the cost of implementing effective anti-money laundering mechanisms often supersedes the proceeds to be recovered from the financial crime. To this end, it is necessary to enact and implement robust anti-money laundering laws as well as to optimally utilise technology to detect and curb money laundering activities to promote viable financial markets. Accordingly, this article investigates the use of technological innovations to detect and curb money laundering in the Zimbabwean financial institutions and financial market.

2 Historical background and incidents of money laundering in Zimbabwe (2003-2020)

For the purposes of this article, the practices of money laundering will be traced from 2003, when bearer cheques where introduced into Zimbabwe by the Reserve Bank of Zimbabwe (RBZ) as legal tender. It must be borne in mind that generally, money laundering flourishes in both formal and informal economies. To this end, it is important to note that the economy of Zimbabwe began declining in the 1990s and as a result, a shift from the formal to the informal economy ensued. Most incidents of money

---

17 Dietz Anti-Money Laundering and Counter-Terrorist Financing 22; FATF 2020 https://www.fatf-gafi.org/faq/moneylaundering/.
18 Teichmann 2020 Crime, L & Soc Change 239; Teichmann and Falker 2020 JFRC 338.
19 Van Duyne Critical Handbook of Money Laundering 1; Gubbay 1998 JMLC 277-278; Goredema Money Laundering in East and Southern Africa 4.
20 Gjoni, Gjoni and Kora "Money Laundering Effects" 19.
21 Canhoto 2020 J Bus Res 1-2; also see Fletcher, Larkin and Corbet 2020 http://dx.doi.org/10.2139/ssrn.3704279 2.
22 Levi 2020 Asian J Criminal 303; Pol 2020 PDP 86.
23 Bure and Tengeh 2019 ESI 204.
24 Munangagwa 2009 Gettysburg Economic Review 112; Mlambo 2017 J Dev Soc 104-105.
25 Chekenya 2016 Undergraduate Economic Review 1-2; Ndiweni and Verhoeven 2013 AJAAF 12; see also related discussion by Kanyeze, Chitambara and Tyson 2017 https://set.odi.org/wp-content/uploads/2017/08/SET-Outlook-for-Zimbabwe-Economy_Sep2017.pdf 8.
laundering occurred in the informal economy of Zimbabwe, which has no transparency or accountability.26

The Zimbabwean economy began to face challenges in the 1990s due to the failure inter alia of the Economic Structural Adjustment Programme (ESAP),27 the Zimbabwe Programme for Economic and Social Transformation (ZIMPREST),28 the Fast Track Land Reform Programme (FTLRP),29 the Millennium Economic Recovery Programme (MERP)30 and the National Economic Revival Programme (NERP).31 In 2003 Zimbabwe was mired in inflation challenges as the then Zimbabwean currency could not keep up with inflation, and this gave rise to various money laundering incidents.32 Seeking to remedy this, the RBZ issued bearer cheques from 2003 to 2009, which were meant to be temporary and to ameliorate the cash

26 See related discussion by Zabyelina 2012 Global Crime 95-96; Vlcek 2018 Crime, L & Soc Change 250-251.
27 Nyoni 2018 JBM 29; Diamini and Schutte 2020 Small Enterprise Research 309; De Jager and Musuva 2016 African Review 21, ESAP lasted from 1990 until 1995.
28 Makina 2010 J Dev Soc 105-106, ZIMPREST was a successor programme to the ESAP which sought to address the social and political agenda of poverty reduction, land reform, black economic empowerment and the indigenisation of the Zimbabwean economy. ZIMPREST was unsuccessful due to the government's weak fiscal policy, the high inflation rate and the depreciation of the Zimbabwean dollar in 1998.
29 Mkodzongi and Lawrence 2019 Rev Afr Polit Econ 8, the FTLRP was initiated in 1998 to redistributed land from white-owned farms and estates to more than 150 000 black farmers primarily for growing crops and grazing land to landless and poor farmers in Zimbabwe. Additionally, the FTLRP allocated some farmlands to new black commercial farmers who had the skills and resources to farm profitably, reinvest and raise agricultural productivity in Zimbabwe. However, the FTLRP failed due to, inter alia, inadequate capitalisation plans made by the GOZ to the new native Zimbabwean farmers.
30 Nyoni 2018 JBM 29, MERP was implemented in 2000 by the government of Zimbabwe in a bid to ameliorate the effects posed to the economy of Zimbabwe by ESAP and ZIMPREST. To this end, the MERP sought to reduce budget deficits 3.8% on Zimbabwe's gross domestic product (GDP) and redirecting most of the budget to capital generating projects. Nonetheless, MERP failed due to inadequate capital budget allocated by the government of Zimbabwe in from 2001 to 2003 owing to inflation and other economic mishaps which befell Zimbabwe then.
31 Nyoni 2018 JBM 29; Bonga 2014 SSRN Electronic Journal 9, NERP was launched in 2003 to provide humanitarian support to poor Zimbabweans in the face of a drought that had ensued from 2000 due to reduced rainfall and other economic woes which the ESAP, ZIMPREST, MERP had previously failed to address. However, NERP failed due to macro-economic imbalances resulting from a constrained budget by the government of Zimbabwe.
32 Biti Rebuilding Zimbabwe 2; Pasara and Garidzirai 2020 Economics 3.
shortages which befell Zimbabwe then.\textsuperscript{33} However, Zimbabwe's inflation reached approximately 1,204.6 per cent in 2006.\textsuperscript{34}

Project Sunrise, which allowed private individuals and corporations in Zimbabwe to exchange old bearer notes for newer ones, gave rise to money laundering and the counterfeiting of bearer cheques.\textsuperscript{35} However, in 2003 about 75 per cent more bearer cheques than what were meant to be in formal banking circulation were presented for exchange to the RBZ by private individuals and corporations, suggesting the prevalence of illegality in the foreign exchange markets and of money laundering.\textsuperscript{36}

It appears that the introduction of bearer cheques was problematic. Firstly, as mentioned above, security features on the bearer cheques were inadequate, and as a result there were numerous reports of counterfeit substitutes being used in Zimbabwe. Consequently, there was an increase in illegal foreign currency exchange activities and money laundering in Zimbabwe.\textsuperscript{37} Secondly, the bearer cheques were meant to be a temporary remedy for the cash shortages which were being experienced in 2003, but bearer cheques continued to be utilised from 2003 until 2009.\textsuperscript{38}

Subsequently, the rampant inflation and the use of bearer cheques promoted engaging in illicit dealings in foreign currency markets by individuals and corporations between 2003 and 2009.\textsuperscript{39} The bulk of the bearer cheques was being held by private individuals and corporations outside of the formal banking sector in 2006 for use in illegal foreign exchange trading.\textsuperscript{40} It appears that this affected the RBZ's management of

\textsuperscript{33} Section 3 of Statutory Instrument Regulations Presidential Powers (Temporary Measures) (Currency Revaluation) 199 of 2006 (SI 199 of 2006); Robinson Zimbabwe's Hyperinflation 5; Hove 2017 Afr Stud Q 52; Makaye and Mapuva 2016 Public Policy and Administration Research 15.

\textsuperscript{34} Fundira "Money Laundering in Zimbabwe" 48; Kairiza Unbundling Zimbabwe's Journey to Hyperinflation 2; Coomer and Gstraunthaler 2011 Q J Austrian Econ 329.

\textsuperscript{35} Fundira "Money Laundering in Zimbabwe" 48.

\textsuperscript{36} Fundira "Money Laundering in Zimbabwe" 48; Maroleng 2006 Afr Secur Stud 46.

\textsuperscript{37} Ncube and Okeke-Uzodike 2015 JoAFA 104; Fundira "Money Laundering in Zimbabwe" 47.

\textsuperscript{38} Kairiza Unbundling Zimbabwe's Journey to Hyperinflation 13; Hove 2017 Afr Stud Q 47.

\textsuperscript{39} Fundira "Money Laundering in Zimbabwe" 48. The inflation rates experienced in Zimbabwe between 2003 and 2009 discouraged corporations from investing capital in the traditional productive sector. In other words, the increase of commodity prices in discouraged investments in the formal productive sector.

\textsuperscript{40} According to Fundira "Money Laundering in Zimbabwe" 48, the then governor of the RBZ launched Project Sunrise, which was aimed at giving private individuals and corporations in Zimbabwe a 21-day period within which they would be allowed to exchange old bearer cheques for new ones. It appeared that of the 43 trillion bearer cheques issued, only 10 million were in the formal banking sector, as the bulk of the bearer cheques were in the informal banking sector. Scores of private individuals
the currency flow, since most of it was used for illegal foreign currency activities and money laundering. It may be concluded that the introduction of bearer cheques and an unstable monetary policy between 2003 and 2009 promoted money laundering activities through illegal foreign exchange dealings.

Money laundering and/or bank fraud-related practices were also carried out between 2003 and 2008 by the personnel of a number of banking institutions.\textsuperscript{41} For example, ENG Capital Asset Management (ENG) established a pyramid scheme which offered investment to the public with very high interest rates in order to lure more depositors.\textsuperscript{42} ENG collapsed in 2003 owing to the fraudulent provision of insider loans and other instances of the mismanagement of funds by its directors.\textsuperscript{43} In another incident, Richard Floyd Mambo and Nigel Mahoko were arrested for attempting to cross into Zambia with the undeclared amount of ZW$575 million.\textsuperscript{44} In addition, banks such as First Mutual, Time Bank, Royal, CFX Bank Limited, CFX Merchant Bank, Century Bank, Interfin Bank, United Merchant Bank, Royal Bank Zimbabwe Limited, Intermarket Banking Corporation Limited, Intermarket Building Society and Trust Bank collapsed in Zimbabwe in 2004 as a result of the banking financial distress which was caused \textit{inter alia} by bank fraud and poor adherence to corporate governance standards on the part of the directors and/or management of these banks.\textsuperscript{45}

\textsuperscript{41} Goredema \textit{Confronting the Proceeds of Crime} 50; Ncube and Okeke-Uzodike 2015 \textit{JoAFA} 102; Kupakuwana ”Sustainable Retail Banking” 198.
\textsuperscript{42} Goredema \textit{Confronting the Proceeds of Crime} 50; Ncube and Okeke-Uzodike 2015 \textit{JoAFA} 102; Kupakuwana ”Sustainable Retail Banking” 198.
\textsuperscript{43} See the related discussion by Kupakuwana ”Sustainable Retail Banking” 199. ENG Directors diverted invested depositors’ money into their own properties and luxury vehicles in Zimbabwe and other countries.
\textsuperscript{44} Ncube and Okeke-Uzodike 2015 \textit{JoAFA} 104 argue that the then \textit{Exchange Controls Act} [Chapter 22:05] 14 of 2002 (\textit{Exchange Controls Act}) which did not categorise bearer cheques as currency. As a result, the accused persons (Richard Floyd Mambo and Nigel Mahoko) were acquitted.
\textsuperscript{45} Dzomira 2014 \textit{Journal of Governance and Regulation} 78; Maune 2015 \textit{Risk Governance and Control} 108-110; Chokuda, Nkomazana and Mawanza 2017 \textit{JEBS} 212; Goredema \textit{Confronting the Proceeds of Crime} 53, directors of First Mutual made fraudulent arrangements with third parties for the purchase of shares in First Mutual, whilst also using depositor's money as collateral security for the purchase of such shares.
The United Merchant Bank’s failure in 2004 was further attributable to the fraudulent abuse by one of the bank’s employees of the bank’s computer system to embezzle funds, the fraudulent misappropriation of funds by the sole director, and incidents of money laundering. This could have been worsened by the poor use of technology on the part of the relevant regulatory authorities to detect and curb money laundering in the banks and related financial institutions. Trust Bank, Century Bank and Interfin Bank failed due to the fraudulent creation of double books of accounts which ostensibly showed the solvent status of the banks, while in actual fact the banks were insolvent.

In 2004 the Troubled Financial Institutions (Resolution) Act was enacted to ameliorate the failure of banks in Zimbabwe, and it came into force in 2005. This Act created the office of an administrator whose primary role was to guide and administer failing banks through implementation and other related schemes, including closely monitored measures to curb money laundering, fraud and any other related financial crimes in the banks and other financial institutions. Additionally, the Troubled Bank Fund (TBF) was adopted by the RBZ (in terms of its role as the lender of last resort) in 2004, in order to provide financial support to failing banks. The RBZ established some guidelines to strengthen corporate governance standards, minimum internal audit standards and standards of risk management for banks and other financial institutions. However, the Troubled Financial Institutions (Resolution) Act and the TBF seem to have

---

46 For the purposes of this article, bank failure refers to a state wherein the RBZ as the banking institutions’ regulator ordered the closure of a bank as a result inter alia of insolvency, fraud, poor credit risk standards or a failure to meet minimum capital requirements.
47 Zhou 2014 RJFA 13-14; see the related discussion by Nyoka 2015 Banks and Bank Systems 9; Goredema Money Laundering in East and Southern Africa 13. Roger Boka (Director of United Merchant Bank) was engaged through his tobacco and gold marketing business in money laundering activities in countries such as Botswana, South Africa, Germany and the United Kingdom for approximately USD21 million.
48 Nyoka 2015 Banks and Bank Systems 9.
49 Troubled Financial Institutions (Resolution) Act [Chapter 24:28] 31 of 2004 (Troubled Financial Institutions Act), see ss 4-9; Mambondiani, Zhang and Arun 2012 IJEFI 9; Munoangira and Kaja 2016 EJBM 202.
50 Section 6(1) of the Troubled Financial Institutions Act.
51 See s 4-9 of the Troubled Financial Institutions Act.
52 Section 11(5) of the Reserve Bank of Zimbabwe Act [Chapter 22:15] 3 of 2016 (RBZ Act); Dlamini and Mbira 2017 JEBS 212-219; Jefferis 2020 ISS Policy Brief 4.
53 Kavila and Le Roux 2017 AREF 140; Pfumorodze and Nzonzo 2010 Indian Journal of Corporate Governance 58-59.
54 See Dzomira 2014 Journal of Governance and Regulation 78.
55 Dzomira 2014 Journal of Governance and Regulation 78; Mawanza, Santu and Mdlongwa 2018 IRMM 75.
56 Dzomira 2014 Journal of Governance and Regulation 78.
failed to prevent the failure of Zimbabwean banks between 2003 and 2021 due to money laundering, fraud and other financial crimes.\textsuperscript{57}

In 2016 Arthur Chikukwa was charged for fraud\textsuperscript{58} and money laundering\textsuperscript{59} after he misrepresented that he had a mandate (as a director/shareholder/officer with the requisite authority) to sell or deal in connection with a special grant coal concession which was held by Rock Rabbit Investments (Private) Limited.\textsuperscript{60} Due to this misrepresentation, payments were made for the coal concession by Robert Mhlanga, who was a director of a group of companies.

In early 2020 Old Mutual, Pretoria Portland Cement Limited (PPC) and Seed Co International were placed under investigation for money laundering amid suspected illicit activities surrounding trading in fungible stocks.\textsuperscript{61} Accordingly, the government of Zimbabwe barred the trading of fungible stocks in a measure to control the exchange rate, which appears to have spiralled out of control.\textsuperscript{62} The fungibility of the stocks made it possible for shareholders from the three companies to buy shares from the ZSE and dispose of them on offshore markets where they were dually listed.\textsuperscript{63} In other words, the companies illicitly engaged in the externalisation of funds outside Zimbabwe though trading in fungible stocks. As a result, the government of Zimbabwe through the Ministry of Finance halted all trading on the ZSE for a month to curb such illicit trading practices and money laundering, while companies such as Old Mutual were being investigated for illegal parallel market trading.\textsuperscript{64} It is submitted that the abrupt closure of the ZSE compromised investor confidence in Zimbabwean financial

\textsuperscript{57} Dzomira 2014 Journal of Governance and Regulation 78.
\textsuperscript{58} Section 136 of Criminal Law Codification and Reform Act [Chapter 9:23] 23 of 2004 (Criminal Law Codification and Reform Act).
\textsuperscript{59} In terms of s 8(3) of the Money Laundering and Proceeds of Crime Act [Chapter 9:24] 4 of 2013 (Proceeds of Crime Act).
\textsuperscript{60} S v Chikukwa (HH 813/16 CRB NO 146/16) [2016] ZWHHC 813 (3 October 2016) para unknown.
\textsuperscript{61} Bwititi 2020 https://www.sundaymail.co.zw/old-mutual-in-govts-cross-hairs-zse-giant-faces-money-laundering-charges; Dzirutwe 2020 https://www.businesslive.co.za/bd/world/africa/2020-07-28-zimbabwe-trading-to-resume-but-old-mutual-and-ppc-stocks-still-suspended/.
\textsuperscript{62} See Exchange Control (Suspension of Fungibility of Certain Shares) Order General Notice 583 of 2020; Ndoro 2020 https://iharare.com/zimbabwe-suspends-fungibility-of-shares-to-control-exchange/.
\textsuperscript{63} Bwititi 2020 https://www.sundaymail.co.zw/old-mutual-in-govts-cross-hairs-zse-giant-faces-money-laundering-charges, Old Mutual is listed on both the Johannesburg Stock Exchange and the London Stock Exchange.
\textsuperscript{64} Bwititi 2020 https://www.sundaymail.co.zw/old-mutual-in-govts-cross-hairs-zse-giant-faces-money-laundering-charges; Dzirutwe 2020 https://www.businesslive.co.za/bd/world/africa/2020-07-28-zimbabwe-trading-to-resume-but-old-mutual-and-ppc-stocks-still-suspended/.
markets, as investors and traders rely *inter alia* on predictability and the consistent operation of financial markets.

In mid-2020 Ecocash\(^{65}\) which is owned and operates under the auspices of Econet Wireless, was alleged to have created a fictitious mobile money platform which converted such mobile money into cash in order to facilitate the purchasing of foreign currency on the black market and to take the money out of Zimbabwe.\(^{66}\) It appears that there were poor customer diligence measures for verifying mobile money customer identity documents, as evidenced by the number of fake mobile money accounts that exist in Zimbabwe.\(^{67}\) For this reason the Financial Intelligence Inspectorate Evaluation Unit (FIU), which was formerly known as the Bank Use Promotion and Suppression of Money Laundering Unit ordered Ecocash to reregister all Ecocash agents in order to curb illicit foreign currency dealers who were now promoting illicit high volume transactions on the Ecocash as most illicit foreign currency dealers utilised Ecocash alongside other mobile money platforms like OneMoney, Telecash and Mycash money to commit money laundering.\(^{68}\) This was also done to identify and curb illicit foreign currency dealing which promoted high volume transactions, especially on the Ecocash platform, which allegedly destabilised and distorted the foreign currency market.\(^{69}\)

3 Relevant legislation for money laundering and bank fraud in Zimbabwe

3.1 *The Bank Use Promotion and Suppression of Money Laundering Act [Chapter 24:24] 2 of 2004*

The *Bank Use Promotion and Suppression of Money Laundering Act*\(^{70}\) promotes the use of the formal banking system.\(^{71}\) It was enacted to guard

---

65 Ngwenya 2020 *AJDS* 124; Gukurume and Mahiya 2020 *JSAS* 1204; Muzanarwo, Fah and Chen 2020 *IJP* 855-856.

66 *ECOCASH Zimbabwe (Pvt) Ltd vs RBZ* (HH 333-20, HC 3007/20) [2020] ZWHC 333 (26 May 2020) para unknown.

67 Kwaramba 2020 https://www.iol.co.za/the-star/opinion-analysis/opinion-reserve-bank-of-zims-restrictions-on-mobile-money-left-thousands-jobless-1b5620c3-06e2-4e17-8910-7e36eb1dc777.

68 *ECOCASH Zimbabwe (Pvt) Ltd vs RBZ* (HH 333-20, HC 3007/20) [2020] ZWHC 333 (26 May 2020) para unknown.

69 Ndlovu 2020 https://www.businesslive.co.za/bd/world/africa/2020-07-23-zimbabwes-mobile-money-shutdown-pits-mnangagwa-against-tycoon/; Nyahasha 2020 https://www.techzim.co.zw/2020/05/ecocash-ceo-cassava-ceo-charged-under-anti-money-laundering-law/.

70 *Bank Use Promotion and Suppression of Money Laundering Act [Chapter 24:24] 2 of 2004 (Money Laundering Act)*, see s 4(1).

71 Simwayi and Haseed 2012 *JMLC* 120.
against a financial crisis mostly promoted by informal and imprudent banking practices such as money laundering and bank fraud\textsuperscript{72} and in reaction to the ongoing Zimbabwean economic decline which started in the 1990s, when most private individuals and corporations in Zimbabwe avoided banks and the formal financial sector.\textsuperscript{73} As a result, informal trading in goods and foreign currency gave rise to illicit trading activities such as money laundering in.\textsuperscript{74} In other words, most foreign currency was held in the informal banking sector for illegal foreign currency dealings and money laundering. Moreover, the counterfeiting of bearer cheques and the externalisation of funds exacerbated the practice of money laundering.\textsuperscript{75}

The \textit{Money Laundering Act} empowered the Bank Use Promotion and Suppression of Money Laundering Unit (Money Laundering Unit) to identify and seize any unlawful and illegitimate proceeds of all serious crimes, including drug trafficking and money laundering.\textsuperscript{76} The \textit{Money Laundering Act} promotes reliance on the formal banking institutions and the combating of money laundering by financial institutions and all private individuals.\textsuperscript{77} However, it is silent on the use of AI and any other technological measures to curb money laundering, bank fraud and other financial crimes in Zimbabwe.\textsuperscript{78}

\subsection*{3.2 The Prevention of Corruption Act [Chapter 9:16] 27 of 2004}

Corruption could be defined as an immoral act which violates the law of any country while exacerbating poverty and inequality among its people.\textsuperscript{79} The \textit{Prevention of Corruption Act}\textsuperscript{80} was enacted to curb corruption and other related practices like money laundering. It prohibits all of the corrupt activities carried out by public officials.\textsuperscript{81} Zimbabwe is regarded as one of
the most corrupt countries in Africa.\textsuperscript{82} Other than the National Code on Corporate Governance (ZimCode) of 2014, which deals with the principles and standards of corporate governance, no measures have been adopted to promote ethical measures and corporate governance standards.\textsuperscript{83} Unlike countries such as the United States of America (USA) and India, that have compulsory codes for corporate governance measures and corruption-related measures (“comply or else” approaches),\textsuperscript{84} the ZimCode follows a “comply or explain” approach.\textsuperscript{85} This is a more flexible regulatory approach which encourages individuals and corporations to take responsibility for and ownership of corporate governance standards.\textsuperscript{86} It enables companies to follow a set of standards from which they choose, without their being mandated to comply with all of the set standards.\textsuperscript{87} Companies are at liberty to choose principles that are applicable to them and they are expected to explain and justify the reasons behind their choice of corporate governance standards.\textsuperscript{88} However, this approach seems not to be effective because there is rampant corruption and poor governance practice in banks, state-owned enterprises and other companies in Zimbabwe. Perhaps compulsory corporate governance measures that are strictly enforced by the relevant role-players should be introduced into Zimbabwe to effectively curb corruption and money laundering.\textsuperscript{89} The \textit{Prevention of Corruption Act} does not have any provision that encourages the use of technological measures to curb corruption and other related crimes such as money laundering and bank fraud.

3.3 \textbf{The Money Laundering and Proceeds of Crime Act [Chapter 9:24] 4 of 2013}

The \textit{Money Laundering and Proceeds of Crime Act}\textsuperscript{90} was enacted in 2013 in order to reinforce the criminalisation \textit{inter alia} of money laundering, and the financing of terrorist offences, and to aid in the identification and freezing

\textsuperscript{82} Sifile and Dangwa 2018 \textit{JBM} 66.
\textsuperscript{83} Sifile and Dangwa 2018 \textit{JBM} 66.
\textsuperscript{84} Sarkar 2015 http://dx.doi.org/10.2139/ssrn.2638252 3.
\textsuperscript{85} Chimbari 2017 \textit{IJECM} 218.
\textsuperscript{86} Sarkar 2015 http://dx.doi.org/10.2139/ssrn.2638252 3.
\textsuperscript{87} Chimbari 2017 \textit{IJECM} 218.
\textsuperscript{88} Chimbari 2017 \textit{IJECM} 218.
\textsuperscript{89} Also see the discussion in Chimbari 2017 \textit{IJECM} 219.
\textsuperscript{90} See ss 8, 9, 81 and 82 of the \textit{Proceeds of Crime Act}; and see the related discussion by Maguchu 2017 \textit{JMLC} 141; FATF 2013 https://www.fatf-gafi.org/publications/high-risk-and-other-monitored-jurisdictions/documents/improvingglobalamlcftcomplianceongoingprocess-22february2013.html#zimbabwe.
of the assets of terrorists.\textsuperscript{91} This follows Zimbabwe’s failure to comply with the Financial Action Task Force (FATF) recommendations on AML/CFT. The \textit{Proceeds of Crime Act} obliges every financial institution and designated non-financial business or profession to identify all their customers by means of an identity document when conducting business with them or during the opening of an account and/or the buying or selling of immovable property.\textsuperscript{92} The \textit{Proceeds of Crime Act} provides for the cooperation and functions of the Money Laundering Unit to curb money laundering, fraud and other financial crimes.\textsuperscript{93} It further provides some requirements for customer identification in cases of cross-border foreign currency transactions and correspondent banking relationships.\textsuperscript{94}

Notably, the \textit{Proceeds of Crime Act} deals with the identification and curbing of money laundering and the financing of terrorist offences.\textsuperscript{95} However, the Eastern and Southern Africa Anti-Money Laundering Group (ESAAMLG) report of 2019 indicates that Zimbabwe is still struggling to comply with the FATF’s AML/CFT recommendations due \textit{inter alia} to the lack of adequate resources and the poor use of technological devices to detect and combat money laundering and bank fraud in its financial markets and financial institutions.\textsuperscript{96} The Act does not expressly provide for the use of technology such as artificial intelligence (AI) and machine learning to curb money laundering and bank fraud.

### 4 Relevant role-players in the supervision of money laundering and bank fraud

#### 4.1 The FIU

As stated earlier, the FIU was established by the \textit{Money Laundering Act}\textsuperscript{97} \textit{inter alia} to provide for the promotion and use of the formal banking system. The FIU receives, analyses and disseminates to other role-players information regarding money laundering, the financing of terrorism and

\textsuperscript{91} Maguchu 2018 Afr Secur Rev 281; Kodongwe 2017 http://dx.doi.org/10.2139/ssrn.3046227 4.

\textsuperscript{92} Sections 14-23 of the \textit{Proceeds of Crime Act}.

\textsuperscript{93} Section 3 of the \textit{Proceeds of Crime Act}.

\textsuperscript{94} See ss 10-12 of the \textit{Proceeds of Crime Act}.

\textsuperscript{95} Sections 10-12 read with ss 78-91 of the of the \textit{Proceeds of Crime Act}; according to Maguchu 2017 \textit{JMLC} 141. The enactment of the \textit{Proceeds of Crime Act} managed to save Zimbabwe from being sanctioned by the FATF, which could have had negative impacts on trade and the economy.

\textsuperscript{96} ESAAMLG 2019 5th Follow-Up Report 16.

\textsuperscript{97} Section 3 of the \textit{Money Laundering Act}; Simwayi and Haseed 2012 \textit{JMLC} 120.
related financial crimes. The FIU also monitors all financial institutions' compliance with the FATF's AML/CFT recommendations, especially, recommendation 23. It analyses suspicious transactions reports (STRs) and other information related to money laundering and terrorist financing in Zimbabwe.

5 Anti-money laundering international instruments and role players

5.1 The FATF

The FATF was established in 1989 at the initiative of the Group of Seven (G7) countries, as a global anti-money laundering and anti-terrorist financing watch-dog and inter-governmental body that sets international standards aimed at curbing such activities. FATF was established primarily to curb money laundering and other related financial crimes in order to foster financial market integrity in all its member countries. To date, the FATF has established over 200 recommendations and standards which provide the basis of a uniform and coordinated global response to money laundering, the drug trade, human trafficking and other related crimes. The FATF recommendations on AML/CFT have a persuasive effect on member countries such that non-adherence by any member country may lead to possible economic or other sanctions being imposed. Thus, the FATF recommendations are international standards which member countries should implement through taking measures adapted to

---

98 Anon Date Unknown https://pubdocs.worldbank.org/en/834721427730
119379/AML-Module-2.pdf 4; also see Forget and Hocevar Financial Intelligence Units 33-70.
99 Forget and Hocevar Financial Intelligence Units 71-72, recommendation 23 of the FATF places an obligation on member countries to ensure that institutions are effectively implementing the AML/CFT requirements and have put in place adequate measures to control the risk of their being involved in or used for money laundering or the financing of terrorism.
100 See s 3 of the Money Laundering Act; ESAAMLG Technical Compliance Re-rating 18.
101 Dobrowolski and Sulkowski 2020 Sustainability 6; Nanyun 2020 JMLC 1-2; Borlini 2020 Va J Int'l L 4; FATF 2020 http://www.fatf-gafi.org/about/.
102 De Oliveira 2018 Crime, L & Soc Change 155-156; Bayona-Rodriguez 2019 Crime, L & Soc Change 394; Setiadi and Andriasari 2019 ASSEHR 554.
103 See FATF 2020 http://www.fatf-gafi.org/publications/fatfrecommendations/documents/fatf-recommendations.html; Setiadi and Andriasari 2019 ASSEHR 554. In addition, the FATF established eight specific recommendations for combating terrorist financing.
104 See the related discussion by Newbury 2017 JMLC 257; Bester, De Koker and Hawthorne Access to Financial Services 4.
their particular circumstances.\textsuperscript{105} This flows from the general fact that countries have different legal frameworks and financial sectors and so FATF’s recommendations cannot be adopted in a one-size-fits-all approach.

Professionals such as lawyers, accountants, company secretaries and real estate agents who are under the category of Designated Nonfinancial Business and Professions (DNFBPs) are obliged to comply with about six major recommendations.\textsuperscript{106} These are recommendations 12, 16, 17, 20, 24 and 25 of the FATF.\textsuperscript{107} In addition, DNFBPs are mandated by the FATF to conduct due diligence on their clients, maintain proper records, retain documentation of the related transactions for at least six years and submit suspicious transaction report to the relevant authority in charge of the anti-money laundering regime of a country.\textsuperscript{108} However, it appears that Zimbabwe is not yet fully compliant with the FATF recommendations, since it is not a member of the FATF.

\textbf{5.2 The ESAAMLG}

The ESAAMLG is a regional body established to accelerate the adoption and implementation of global recommendations and standards to curb money laundering and the financing of terrorism in some eastern and southern African countries.\textsuperscript{109} Zimbabwe is a member of the ESAAMLG.\textsuperscript{110} The ESAAMLG’s efforts to combat money laundering and the financing of

\begin{thebibliography}{99}
\bibitem{fatf2020} FATF 2020 http://www.fatf-gafi.org/publications/fatf-recommendations/documents/fatf-recommendations.html 7.
\bibitem{fatf2020} FATF 2020 http://www.fatf-gafi.org/publications/fatf-recommendations/documents/fatf-recommendations.html 7.
\bibitem{fatf2020} FATF 2020 http://www.fatf-gafi.org/publications/fatf-recommendations/documents/fatf-recommendations.html 7, recommendation 12 states that financial institutions and DNFBPs are required to take reasonable measures as part of their internal controls to determine if a customer or beneficial owner is a domestic or international organisation politically exposed people (PEP). Recommendation 16 applies to both cross-border and domestic wire transfers and seeks to prevent terrorists and other financial criminals from having unfettered access to wire transfers for moving their funds, and for detecting and curbing such misuse when it occurs. Recommendation 17 states that financial institutions and DNFBPs should be required to take appropriate steps to identify and assess their proliferation financing risks. Recommendation 20 states that the financial institutions must report any suspicious transactions to the relevant authorities immediately. Recommendation 24 states that competent authorities should be able to obtain, or have access in a timely fashion to, adequate, accurate and current information on the beneficial ownership and control of companies and other legal persons. Recommendation 25 states that countries should have regard to the FATF best practice guidelines on providing feedback to reporting financial institutions and other persons.
\bibitem{fatf2020} FATF 2020 http://www.fatf-gafi.org/publications/fatf-recommendations/documents/fatf-recommendations.html 7.
\bibitem{fatf2020} See the related discussion by Arnone and Padoan 2008 \textit{EJLE} 362; Ntege 2020 \textit{Journal of the Institute for African Studies} 33.
\bibitem{maguchu2017} Maguchu 2017 \textit{JMLC} 139.
\end{thebibliography}
terrorism are conducted in accordance with the FATF and other regional and international role-players.\textsuperscript{111} However, it appears that the ESAAMLG does not oblige its member countries to employ appropriate technological measures such as AI to curb money laundering, bank fraud and other financially related crimes in their respective financial instruments and financial markets.

5.3 Evaluation of Zimbabwe's compliance with the FATF and ESAAMLG

In an assessment carried out by the ESAAMLG in 2019 to assess Zimbabwe's compliance with the FATF's AML/CFT measures and recommendations, it was stated that Zimbabwe was partially compliant with such measures and recommendations.\textsuperscript{112} The FATF held that Zimbabwe fell short of adequate compliance on more serious AML/CFT offences and on most FATF recommendations, especially the recommendation to adopt robust measures to curb money laundering and the financing of terrorism offences in the financial market.\textsuperscript{113} In other words, role-players such as the Zimbabwe Republic Police (ZRP), the Zimbabwe Immigration Revenue Authority (ZIMRA), the National Prosecuting Authority (NPA), the Zimbabwe Anti-Corruption Commission (ZACC) and the Financial Intelligence Unit were found to have inconsistent statistics on the prosecutions and convictions of offenders.\textsuperscript{114} This could be attributed \textit{inter alia} to a lack of a comprehensive understanding of money laundering offences and a lack of resources on the part of the enforcement authorities and other role-players in Zimbabwe. Zimbabwe does not have robust measures in place to detect, investigate and combat money laundering and the financing of terrorist offences.\textsuperscript{115}

5.4 Basel Committee on Banking Supervision (BCBS)

The BCBS is housed in the Bank for International Settlements in Basel (BIS) and was established in 1974 by the governors of the central banks of the Group of Ten (G10) countries as a committee of banking supervisory authorities. The BCBS is empowered to set guidelines for banking regulation globally.\textsuperscript{116} To date, the BCBS has issued a number of banking regulatory standards aimed at ensuring that there are uniform rules and

\begin{itemize}
\item \textsuperscript{111} ESAAMLG became a member of the FATF in 2010.
\item \textsuperscript{112} ESAAMLG 5th Follow-Up Report 4.
\item \textsuperscript{113} ESAAMLG 5th Follow-Up Report 16.
\item \textsuperscript{114} ESAAMLG 5th Follow-Up Report 16.
\item \textsuperscript{115} ESAAMLG 5th Follow-Up Report 16.
\item \textsuperscript{116} Goodhart \textit{Basel Committee on Banking Supervision} 1.
\end{itemize}
regulations for banks globally. In 1997 the BCBS issued the Core Principles for Effective Banking Supervision (Core Principles) which are minimum standards for the sound prudential regulation and supervision of banks globally. Likewise, the Core Principles require all banks to have adequate policies and processes, including strict customer due diligence (CDD) rules, to promote high ethical and professional standards in the banking sector so as to prevent banks from being used for criminal activities like money laundering, bank fraud and the financing of terrorist activities. To date, the BCBS has published three banking regulations conventionally referred to as the Basel protocols. Although the BCBS and other relevant role-players have made commendable efforts to enhance the combating of bank fraud, money laundering and other illicit trading practices, they do not expressly oblige the member states to use AI to curb financial crimes such as money laundering.

5.5 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988

Drugs have historically been among the main drivers of money laundering globally, due to the need of drug traffickers to transform proceeds from the illegal sale of drugs into an apparently legal source. The United Nations (UN) Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988 (Narcotic Drugs Convention) was adopted to curb drug abuse and related money laundering activities. Zimbabwe became a member state of the Narcotic Drugs Convention in 1993, in a bid to align its money laundering regulatory regime with international best practices. However, it is submitted that the Narcotic Drugs Convention is too old and appears not to have been updated to align with the recent trends in drug

---

117 Kerwer 2015 Governance 620; Vousinas 2015 JFRC 393.
118 BIS 2011 https://www.bis.org/publ/bcbs213.pdf 1.
119 De Koker 2014 JMLC 286.
120 Akkizidis and Kalyvas Final Basel III Modelling 12-14. Basel I was published in 1988 to set the minimum capital standards required for banks. Basel II was published in 2004 and it became more flexible in relation to the minimum capital requirements for banks which had been set by Basel I. In this regard, Basel II introduced three pillars of banking regulation which were firstly more inclusive of the differences in the balance sheets between banking institutions. Secondly, Basel II encouraged the efficient use of disclosure for strengthening market discipline and encouraging sound banking practices. Thirdly, Basel II introduced a review of an institution’s capital adequacy and internal assessment process. Lastly, Basel III, which was published in 2010, introduced new and stiffer capital and liquidity requirements to safeguard the liquidity of banks in cases of economic crisis.
121 Teichmann 2020 Crime, L & Soc Change 238; see the related discussion Levi 2015 Eur J Crim Pol Res 283.
122 Article 2 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988).
crimes and related financial crimes such as money laundering globally. Furthermore, the *Narcotic Drugs Convention* does not expressly provide for the use of technological measures by regulatory authorities to effectively curb money laundering and other financial crimes in all member countries.

5.6 *United Nations Convention Against Transnational Organised Crime 2000 (UNTOC)*

The United Nations General Assembly adopted the UNTOC in a bid to curb transnational organised crime such as money laundering\(^{123}\) in all countries and jurisdictions. To date, about 147 countries have signed UNTOC, including Zimbabwe, which became a member state in 2007.\(^{124}\) The UNTOC was established in conjunction with its three protocols on human trafficking, migrant smuggling, and firearms in a bid to provide a more unified and comprehensive protection in all countries against related transnational organised crimes like money laundering.\(^{125}\) The UNTOC empowers member countries to utilise modern technology and other technologically related methods when dealing with transnational organised crime.\(^{126}\) Although there is no express mention of the use of AI to curb money laundering and other related crimes in the UNTOC, it could be inferred from article 27(3) of the UNTOC, which envisages the use of AI and other modern technologies to curb financial crimes such as money laundering in its member countries.

5.7 *Political Declaration and Action Plan Against Money Laundering 1998*

The Political Declaration and Action Plan Against Money Laundering 1998 (Action Plan Against Money Laundering) was established by the General Assembly after the internationalisation of criminal activities and the globalisation of money laundering increased.\(^{127}\) The Action Plan Against Money Laundering was adopted in 1998 in order to identify future priorities and areas requiring further action, goals and targets to be established for drug control in all member countries.\(^{128}\) It appears that it was developed as

---

123 Article 2 of the *United Nations Convention against Transnational Organized Crime* (2000) (UNTOC); Gastrow 2013 *ISS Policy Brief* 4. Transnational organised crime is organised crime coordinated across national borders, involving groups of individuals working in more than one country to plan and execute illegal business activities.

124 Article 1 of the UNTOC; Rose 2020 *AJIL* 52.

125 See art 7 of the UNTOC; Kuznetsova, Shuniaevoa and Murkshtis 2020 *IJASOS* 148.

126 Article 27(3) of the UNTOC.

127 *Political Declaration and Action Plan against Money Laundering* UN Doc A/RES/S-202 (1988); Chang 1998 *Int J Comp Appl Crim Justice* 5; Schroeder 2001 *FBI Law Enforcement Bulletin* 1-2.

128 UN Date Unknown https://www.unodc.org/unodc/en/commissions/CND/Political...
a result of the sophistication of the techniques employed by the offenders. In other words, offenders were taking advantage of weaknesses in the national regulatory frameworks of most countries by utilising flexible and rapid transfers as well as moving assets across national boundaries. Additionally, offenders exploited the diversity of business regulations in national systems and utilised unregulated professional persons in some countries to commit money laundering activities. The Action Plan Against Money Laundering does not expressly require member states to use modern technologies such as AI and machine learning to detect and curb money laundering.

5.8 Naples Political Declaration and Global Action Plan against Organised Transnational Crime 1995

The Naples Political Declaration and Global Action Plan against Organised Transnational Crime (Naples Political Declaration) was established in 1995 by the General Assembly of the UN. It emphasised the need for urgent global action against organised transnational crime, focussing on the structural characteristics of criminal organisations. The Naples Political Declaration requires member countries to harmonise their legislation so as to ensure that their criminal justice systems have the capacity to prevent and control organised transnational crime in all its types and manifestations. However, it does not expressly provide for the use of AI, machine learning and other technological measures to detect and timeously curb money laundering and other financial crimes in all member countries.

6 The effects of corona virus (covid-19) on money laundering and financial markets in Zimbabwe

Covid-19 is an acute respiratory disease which began in China and has spread to all parts of the world. The negative impact of covid-19 has been felt by most countries globally. It has affected most global economies.
In this regard, Zimbabwe too has grappled to boost its economy due to covid-19, political instability and related factors. The Zimbabwean economy was expected to decline by 6.5 per cent in 2019 owing *inter alia* to the negative effects of covid-19 on the formal and informal sectors of the economy. Moreover, the economy was expected to decline by approximately 3 to 8 per cent at the end of 2020 due to a lack of fiscal stimulus from the government. This was the result *inter alia* of low productivity in the manufacturing sector and the closure of border entries for imported goods due to covid-19. This affected the economy since Zimbabwe relies mostly on imported goods and services. Corruption has also played a negative role in during the covid-19 pandemic and a lot of covid-19-related relief was looted by government officials. For example, the former Minister of Health (Mr Obadiah Moyo) was dismissed from office after the criminal abuse of office though inflating the prices of covid-19 relief material and funds in Zimbabwe.

Additionally, greed and corruption amongst government officials, prominent business figures and state security agents deployed to enforce the covid-19 preventative measures also affected the economy at the expense of the poor ordinary people in Zimbabwe. Corruption and money laundering-related cases in Zimbabwe have manifested in shady deals between government officials and those in the private sector providing medical equipment for covid-19. Government officials and business people set high profit mark-ups on coronavirus-related material and personal protective equipment (PPE) and abused loans allocated for economic relief and food aid parcels meant for the poor and economically vulnerable people. Furthermore, the bribery of police and the military officers deployed to enforce covid-19 lockdown regulations worsened corruption. The effects of covid-19 have been worse for the poor and vulnerable members of the Zimbabwean society as travel restrictions barred most informal traders from travelling to their places of trade while food parcels were diverted from the

---

137 UNDP 2020 https://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_ZW_Briefs_Socioeconomic_impact_of_Corona_virus_01_2020.pdf 7.
138 UNDP 2020 https://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_ZW_Briefs_Socioeconomic_impact_of_Corona_virus_01_2020.pdf 7.
139 Chingono 2020 https://www.theguardian.com/global-development/2020/jul/09/zimbabwe-health-minister-facing-coronavirus-corruption-charge-sacked; Ndlovu 2020 https://www.thearticle.com/covid-19-corruption-and-stealing-the-recovery.
140 Dzinamarira et al 2020 *Clinical Infectious Diseases* 4.
141 Moyo 2020 *GJMBR* 37; Mutizwa 2020 *JAPS* 69.
142 Moyo 2020 *GJMBR* 37.
143 Moyo 2020 *GJMBR* 37.
poor by corrupt government officials. It is submitted that corruption and money laundering have been rampant in Zimbabwe during the covid-19 pandemic.

7 The use of technology in combating money laundering in Zimbabwe

There has been a rapid increase in AI-related measures to curb money laundering in many countries, since they more efficient than human intelligence. It appears that AI has been valuable in the fields of engineering, telecommunications, aerospace, physics and humanities due inter alia to reduced errors, its speedy completion of tasks and its constant availability, unlike humans. Machine learning, graph deep learning, natural language processing, chatbots and social network analysis are being devised and improved by information technology specialists to curb money laundering in some countries. In Singapore, Italy, the

---

144 UNDP 2020 https://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_ZW_Briefs_Socioeconomic_impact_of_Corona_virus_01_2020.pdf 5.
145 Bellomarini, Laurenza and Sallinger "Rule-Based Anti-Money Laundering" 1-2.
146 Jamshidi et al "Novel Multiobjective Approach" 454-458.
147 Machine learning is an application of AI that provides computer systems with the ability to automatically learn from past experiences.
148 Chami et al 2020 https://arxiv.org/pdf/2005.03675.pdf 1; Bacciu et al 2020 Neural Networks 204, Wagner 2019 Gesellschaft für Informatik 3. Graphs are generally data structures that can represent complex relational data. On the other hand, deep learning is an AI function that imitates the functioning of the human brain in processing data for detecting objects, recognising speech, translating languages and making decisions. In AML, graph deep learning enables regulators to detect and identify a recurrent pattern in money laundering.
149 Han et al 2020 Digital Finance 6. Natural language processing relates to a field of AI which strives to improve the ability of computers to process and analyse large amounts of data emanating from human languages. As a result, natural language processing may help curb money laundering through the timeous detection of strange or suspicious and/or illegitimate banking transactions.
150 Singh, Ramasubramanian and Shivam Building an Enterprise Chatbot 9. Chatbots are AI software that can have a conversation with a user in natural language through messaging applications, websites, mobile applications or through the telephone. In banking, chatbots can manage communications on behalf of the bank with millions of banking products and service users, at a low cost.
151 Colladon and Remondi 2017 Expert Syst Appl 51. Social network analysis refers to the study of trends between online social network accounts. In social network analysis, relevant role-players for money laundering usually utilise network metrics (which relates to the amount of "traffic") in a specific social network account held by a suspected money launderer.
152 Bellomarini, Laurenza and Sallinger "Rule-Based Anti-Money Laundering" 2.
153 Woodsome and Ramachandran Fixing AML 15. Singapore’s central bank, the Monetary Authority of Singapore (MAS), is working with various stakeholders to ensure that banks utilise a technological device which verifies personal information linked to individuals’ national identity numbers.
154 Colladon and Remondi 2017 Expert Syst Appl 51.
USA, the United Kingdom (UK) and Germany, AI has been employed in one way or the other to curb money laundering in the banking sectors. The use of AI has some notable benefits for the banking community globally. Firstly, it enables better access to credit through the greater accuracy of the mechanisms used for credit risk assessments, which reduces the risks of inaccurate results. Secondly, the advanced analytics employed by AI may help banks to offer contextualised, personalised banking products and experiences to financial consumers. Thirdly, AI may afford financial consumers better protection from fraud and other money laundering-related practices, since AI measures may automatically analyse massive amounts of data to detect anomalies which may be threats to banking institutions.

It is generally accepted that Zimbabwean banks have adopted online banking in their operations. However, there appears to be a very low rate of the adoption of AI-related measures by banks and other financial institutions to curb money laundering and related practices.

8 Conclusion

Money laundering is a complex global phenomenon which has been exacerbated by the extensive use of computers, the Internet and other digital devices by the offenders. As a result, various countries have enacted some laws and regulations to curb financial crimes such as money laundering and the financing of terrorist activities. As indicated above, most countries have enacted laws in accordance with the recommendations from the FATF and other role-players such as the UN and the ESAAMLG. In this regard, Zimbabwe has also enacted legislation such as the Prevention of Corruption Act, the Proceeds of Crime Act and the Money Laundering Act.

---

155 According to the European Banking Federation (EBF 2019 https://www.ebf.eu/wp-content/uploads/2020/03/EBF-AI-paper_final.pdf) 22, AI use in the banking sector has helped reduce both the number of complaints filed to the Financial Conduct Authority (FCA) and the resolution times.

156 Pleyer 2020 https://www.fatf-gafi.org/media/fatf/documents/German-Presidency-Priorities.pdf 1.

157 Pleyer 2020 https://www.fatf-gafi.org/media/fatf/documents/German-Presidency-Priorities.pdf 22.

158 Pleyer 2020 https://www.fatf-gafi.org/media/fatf/documents/German-Presidency-Priorities.pdf 22.

159 Pleyer 2020 https://www.fatf-gafi.org/media/fatf/documents/German-Presidency-Priorities.pdf 22.

160 Shambira 2020 EJSSS 118, shows that there is a higher frequency of the adoption of digital technology (for example, social media) as against a lesser frequency of the adoption of AI technologies, with chatbots being the only form of AI adopted by only 16% of banks in Zimbabwe. Shambira’s study does not account for the infrequent adoption of AI measures to curb money laundering, bank fraud and other financial crimes in Zimbabwe.
to curb money laundering, bank fraud and the financing of terrorism in its financial market and financial institutions. However, it is submitted that this legislation and other enforcement mechanisms employed by relevant role-players are not robust enough to curb money laundering and bank fraud in Zimbabwe. Given this background, it is submitted that the RBZ should provide extensive training to banking personnel and companies in order to improve their skills and their understanding of money laundering, bank fraud and financing of terrorism activities in Zimbabwe. This follows the fact that the National Risk Assessment (NRA) which was carried out by the ESAAMLG\textsuperscript{161} indicated that most banking personnel and companies' employees in Zimbabwe do not have sufficient understanding of the money laundering risks and terrorist financing. Moreover, no AI and/or other technological measures have been adopted to detect and combat money laundering, bank fraud and the financing of terrorist practices in Zimbabwe due \textit{inter alia} to a lack of financial resources. Additionally, the RBZ has struggled to allocate sufficient resources to banking institutions for them to prevent and/or curb money laundering, bank fraud and financing of terrorist activities in Zimbabwe.\textsuperscript{162}

AI is effective at examining a series of complex transactions timeously while finding anomalies through automatically analysing large amounts of data.\textsuperscript{163} It is therefore hoped that the relevant authorities will consider adopting AI and machine learning techniques to timeously detect suspicious transactions that usually result in money laundering and/or bank fraud.\textsuperscript{164}

Accordingly, the \textit{Proceeds of Crime Act}\textsuperscript{165} should be amended to expressly

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{161} ESAAMLG. 5th Follow-Up Report 4.
\item \textsuperscript{162} Ferwerda \textit{et al} 2020 \textit{Scientific Reports} 1-2.
\item \textsuperscript{163} Waliszewski and Warchlewksa 2020 \textit{ESI} 400.
\item \textsuperscript{164} INSA Financial Threats Council 2020 https://www.insaonline.org/wp-content/uploads/2020/05/INSA_WP_TBML.pdf 8. In the United States of America (USA), the Financial Crimes Enforcement Network (FINCEN) reviews all Trade-Based Money-Laundering (TBML)-related Suspicious Activity Reports (SARs) that are filed by financial institutions. Additionally, FINCEN can also utilise Geographic Targeting Orders (GTOs), which requires any USA financial institution which operates within a certain geographic area to report on transactions greater than a specified amount. FINCEN has the ability to analyse this data and detect and identify typologies, patterns and trends, which could serve as vital information for tracing suspicious and money laundering-related practices to both law enforcement and the private sector in the USA. In other countries like Canada, AI is used in the form of algorithm-related measures in order to timeously detect illicit practices in the financial markets. This information was obtained from Mr Topham from the Financial Service Conduct Authority in South Africa during the 2\textsuperscript{nd} Corporate and Financial Markets Law Annual Colloquium held on the 29\textsuperscript{th}-30\textsuperscript{th} of October 2020 at the North-West University.
\item \textsuperscript{165} Section 3 of the \textit{Proceeds of Crime Act} must be amended to include the use of AI, machine learning and other related technologies to curb money laundering, bank fraud and other financial crimes in Zimbabwe.
\end{itemize}
\end{footnotesize}
enact provisions that oblige banks and other financial institutions to use AI and other related technological measures to detect and curb money laundering practices in the Zimbabwean financial market.

The RBZ should establish and adopt more stable monetary policy measures to discourage money laundering in the Zimbabwean financial markets and financial institutions. This could combat illicit practices that are rife the informal financial markets and informal foreign currency exchange.\textsuperscript{166} A two-tier regulatory framework should be established to enhance the regulation of banking institutions and financial markets. It is hoped that this would allow the RBZ to have dedicated objectives and clear mandates towards the formulation of a stable and robust monetary policy.

The RBZ and the banks should consider incorporating codes of good corporate governance,\textsuperscript{167} as seen in other countries such as South Africa. This should be done in order to improve the standard of corporate governance in Zimbabwean banks and prevent corrupt practices, which have already caused the failure of a number of banks. Moreover, robust laws on the usage of mobile money platforms like Ecocash agents should be enacted to regulate mobile money transactions to curb money laundering. The Statutory Instrument Banking (Money Transmission, Mobile Banking and Mobile Money Interoperability) Regulations\textsuperscript{168} are not robust enough to effectively regulate mobile money services. The RBZ and Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) are responsible for the supervision of mobile money operations.\textsuperscript{169} The \textit{SI Banking Regulations} should be revised to expressly provide for the use of AI, machine learning and other related technological measures to curb money laundering and related financial crimes in Zimbabwe.

\textsuperscript{166} Fundira "Money Laundering in Zimbabwe" 47.
\textsuperscript{167} The King Report and King Code on Corporate Governance are corporate governance standards which seek to promote good corporate governance in the boards of directors of listed companies, banks, and certain state-owned enterprises in South Africa.
\textsuperscript{168} Statutory Instrument Banking (Money Transmission, Mobile Banking and Mobile Money Interoperability) Regulations 80 of 2020 (\textit{SI Banking Regulations}), ss 3-5 and other relevant sections.
\textsuperscript{169} Robb, Tausha and Vilakazi "Competition and Regulation" 231.
Bibliography

Literature

Achim and Borlea *Economic and Financial Crime*
Achim MV and Borlea SN *Economic and Financial Crime: Corruption, Shadow Economy and Money Laundering* (Springer New York 2020)

Adambekova and Andekina 2013 *WASJ*
Adambekova AA and Andekina RE "Financial Market and its Definitions: Transformation of Scientific Concepts" 2013 *WASJ* 12-16

Adom and Elbahnasawy 2014 *BJEMT*
Adom AD and Elbahnasawy NG "Saving-Investment Gap and Economic Growth in Developing Countries: Simulated Evidence from Selected Countries in Africa" 2014 *BJEMT* 1585-1598

Akkizidis and Kalyvas *Final Basel III Modelling*
Akkizidis I and Kalyvas L *Final Basel III Modelling* (Palgrave Macmillan London 2018)

Anon "Implementation of a Comprehensive, Integrated and Balanced Approach"
Anon "Implementation of a Comprehensive, Integrated and Balanced Approach to Addressing the World Drug Problem" in United Nations *Report of the International Narcotics Control Board for 2014* (United Nations New York 2014) 1-10

Arnone and Padoan 2008 *EJLE*
Arnone M and Padoan PC "Anti-Money Laundering by International Institutions: A Preliminary Assessment" 2008 *EJLE* 361-386

Bacciu et al 2020 *Neural Networks*
Bacciu D et al "A Gentle Introduction to Deep Learning for Graphs" 2020 *Neural Networks* 203-221

Bastard et al 2020 *Science*
Bastard P et al "Autoantibodies against Type I IFNs in Patients with Life-Threatening COVID-19" 2020 *Science* 1-12

Bayona-Rodríguez 2019 *Crime, L & Soc Change*
Bayona-Rodríguez H "Money Laundering in Rural Areas with Illicit Crops: Empirical Evidence for Colombia" 2019 *Crime, L & Soc Change* 387-417
Bellomarini, Laurenza and Sallinger "Rule-Based Anti-Money Laundering"
Bellomarini L, Laurenza E and Sallinger E "Rule-Based Anti-Money Laundering in Financial Intelligence Units: Experience and Vision" in 4th International Joint Conference on Rules and Reasoning (29 June-1 July 2020 virtual) 1-12

Bester, De Koker and Hawthorne Access to Financial Services
Bester H, De Koker L and Hawthorne R Access to Financial Services in South Africa: A Brief Case Study of the Effect of the Implementation of the Financial Action Task Force Recommendations (Genesis Analytics Johannesburg 2004)

Biti Rebuilding Zimbabwe
Biti T Rebuilding Zimbabwe: Lessons from a Coalition Government (Centre for Global Development Washington DC 2014)

Bonga 2014 SSRN Electronic Journal
Bonga WG "Economic Policy Analysis in Zimbabwe: A Review of Zimbabwe Economic Policies: Special Reference to Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim Asset)" 2014 SSRN Electronic Journal DOI: 10.2139/ssrn.2384863

Borlini 2020 Va J Int’l L
Borlini L "The Security Council and Non-State Domestic Actors: Changes in Non-Forcible Measures between International Law Making and Peacebuilding" 2020 Va J Int’l L 1-58

Bure and Tengeh 2019 ESI
Bure M and Tengeh RK "Implementation of Internal Controls and the Sustainability of SMEs in Harare in Zimbabwe" 2019 ESI 201-218

Canhoto 2020 J Bus Res
Canhoto Al "Leveraging Machine Learning in the Global Fight against Money Laundering and Terrorism Financing: An Affordances Perspective" 2020 J Bus Res 1-12

Cavallo and Serebrisky 2016 Saving for Development
Cavallo E and Serebrisky T "Financial Systems to Make Savings Count" 2016 Saving for Development 45-73

Chakraborty and Maity 2020 Sci Total Environ
Chakraborty I and Maity P "COVID-19 Outbreak: Migration, Effects on Society, Global Environment and Prevention" 2020 Sci Total Environ 1-7

Electronic copy available at: https://ssrn.com/abstract=3897801
Chang 1998 *Int J Comp Appl Crim Justice*
Chang DH "Main Issues and Key Conclusions of the Courmayeur Conference: Global Approach to Control of Money-Laundering" 1998 *Int J Comp Appl Crim Justice* 1-16

Chau and Van Dijck Nemcsik *Anti-Money Laundering Transaction Monitoring Systems Implementation*
Chau D and Van Dijck Nemcsik M *Anti-Money Laundering Transaction Monitoring Systems Implementation: Finding Anomalies* (Wiley Hoboken 2018)

Chekenya 2016 *Undergraduate Economic Review*
Chekenya NS "Rethinking Formalization of Zimbabwe’s Informal Sector" 2016 *Undergraduate Economic Review* 1-43

Chimbari 2017 *IJECM*
Chimbari P "Public Sector Corporate Governance in Zimbabwe: The Nexus between the ZimCode and State-Owned Enterprises" 2017 *IJECM* 212-221

Chitsove 2018 *U Botswana LJ*
Chitsove E "Legal Aspects of Combatting Corruption in Zimbabwe" 2018 *U Botswana LJ* 41-62

Chokuda, Nkomazana and Mawanza 2017 *JEBS*
Chokuda T, Nkomazana N and Mawanza W "A Bank Failure Prediction Model for Zimbabwe: A Corporate Governance Perspective" 2017 *JEBS* 207-216

Clark, Reed and Sunderland 2018 *Land Use Policy*
Clark R, Reed J and Sunderland T "Bridging Funding Gaps for Climate and Sustainable Development: Pitfalls, Progress and Potential of Private Finance" 2018 *Land Use Policy* 335-346

Colladon and Remondi 2017 *Expert Syst Appl*
Colladon AF and Remondi R "Using Social Network Analysis to Prevent Money Laundering" 2017 *Expert Syst Appl* 49-58

Coomer and Gstraunthaler 2011 *Q J Austrian Econ*
Coomer J and Gstraunthaler T "The Hyperinflation in Zimbabwe" 2011 *Q J Austrian Econ* 311-346

Cox *Handbook of Anti-Money Laundering*
Cox D *Handbook of Anti-Money Laundering* (Wiley Hoboken 2014)
Darškuviénė Financial Markets
Darškuviénė V Financial Markets (Vytautas Magnus University Kaunas 2010)

De Jager and Musuva 2016 African Review
De Jager N and Musuva C "The Influx of Zimbabweans into South Africa: A Crisis of Governance that Spills Over" 2016 African Review 15-30

De Koker 2014 JMLC
De Koker L "The FATF’s Customer Identification Framework: Fit for Purpose?" 2014 JMLC 281-295

De Oliveira 2018 Crime, L & Soc Change
De Oliveira IS "The Governance of the Financial Action Task Force: An Analysis of Power and Influence throughout the Years" 2018 Crime, L & Soc Change 153-172

De Sanctis Technology-Enhanced Methods of Money Laundering
De Sanctis FD Technology-Enhanced Methods of Money Laundering: Internet as Criminal Means (Springer International New York 2019)

Dietz Anti-Money Laundering and Counter-Terrorist Financing
Dietz A Anti-Money Laundering and Counter-Terrorist Financing in the Luxembourg Investment Fund Market (European Institute for Knowledge and Value Management Rameldange 2017)

Dlamini and Mbira 2017 JEBS
Dlamini B and Mbira L "The Current Zimbabwean Liquidity Crisis: A Review of its Precipitates" 2017 JEBS 212-219

Dlamini and Schutte 2020 Small Enterprise Research
Dlamini B and Schutte DP "An Overview of the Historical Development of Small and Medium Enterprises in Zimbabwe" 2020 Small Enterprise Research 306-322

Dobrowolski and Sułkowski 2020 Sustainability
Dobrowolski Z and Sułkowski L "Implementing a Sustainable Model for Anti-Money Laundering in the United Nations Development Goals" 2020 Sustainability 1-23

Ductor and Grechyna 2015 IREF
Ductor L and Grechyna D "Financial Development, Technological Progress and Economic Growth" 2015 IREF 1-27
Dzinamarira et al 2020 *Clinical Infectious Diseases*
Dzinamarira T et al "Coronavirus Disease 2019 (COVID-19) Response in Zimbabwe: A Call for Urgent Scale-Up of Testing to Meet National Capacity" 2020 *Clinical Infectious Diseases* https://doi.org/10.1093/cid/ciaa1301

Dzomira 2014 *Journal of Governance and Regulation*
Dzomira S "Analysis of Bank Failures during Financial Tumult in Africa-Zimbabwe: A Historical Review" 2014 *Journal of Governance and Regulation* 75-80

ESAAMLG 5th Follow-Up Report
Eastern and Southern Africa Anti-Money Laundering Group *Anti-Money Laundering and Counter-Terrorist Financing Measures – Zimbabwe: ESAAMLG 5th Follow-Up Report and Technical Compliance Re-rating* (ESAAMLG Dar es Salaam 2015)

ESAAMLG Technical Compliance Re-rating
Eastern and Southern Africa Anti-Money Laundering Group *Anti-Money Laundering and Counter-Terrorist Financing Measures - ESAAMLG Technical Compliance Re-rating: Zimbabwe* (ESAAMLG Dar es Salaam 2019)

Ferguson *Global Corruption*
Ferguson G *Global Corruption: Law, Theory and Practice - Legal Regulation of Global Corruption under International Conventions, US, UK and Canadian Law* 3rd ed (University of Victoria Victoria 2018)

Ferwerda et al 2020 *Scientific Reports*
Ferwerda J et al "Estimating Money Laundering Flows with a Gravity Model-Based Simulation" 2020 *Scientific Reports* 1-11

Forget and Hocevar *Financial Intelligence Units*
Forget L and Hocevar VS *Financial Intelligence Units: An Overview* (International Monetary Fund Washington DC 2004)

Fundira "Money Laundering in Zimbabwe"
Fundira B "Money Laundering in Zimbabwe, 2004 to 2006" in Goredema C (ed) *Confronting the Proceeds of Crime in Southern Africa: An Introspection* (ISS Pretoria 2007) 47-72

Gastrow 2013 *ISS Policy Brief*
Gastrow P "Transnational Organised Crime: The Stepchild of Crime-Combating Priorities" 2013 *ISS Policy Brief* 1-4
Gilmour 2020 JMLC
Gilmour N "Illustrating the Incentivised Steps Criminals Take to Launder Cash while Avoiding Government Anti-Laundering Measures" 2020 JMLC 515-526

Ginting 2020 Veteran L Rev
Ginting YP "Suspicious Financial Transactions from Narcotic Trading Result as Origin Criminal Measures in Money Laundering" 2020 Veteran L Rev 1-11

Gjoni, Gjon and Kora "Money Laundering Effects"
Gjoni M, Gjoni AK and Kora HB "Money Laundering Effects, 2015" in Proceedings of the International Conference on Management, Business and Economics (November 2015) 13-20

Goodhart Basel Committee on Banking Supervision
Goodhart C The Basel Committee on Banking Supervision: A History of the Early Years 1974-1997 (Cambridge University Press Cambridge 2011)

Goredema Confronting the Proceeds of Crime
Goredema C (ed) Confronting the Proceeds of Crime in Southern Africa: An Introspection (ISS Pretoria 2007)

Goredema Money Laundering in East and Southern Africa
Goredema C Money Laundering in East and Southern Africa: An Overview of the Threat (ISS Pretoria 2003)

Gubbay 1998 JMLC
Gubbay AR "Zimbabwe: Report on Money Laundering (No 61)" 1998 JMLC 277-286

Gudhlanga and Madongonda 2019 Africa Development
Gudhlanga ES and Madongonda AM "Surviving a Rabid Economy: The Current Cash Crisis and its Threat to Security and Governance in the Monetary Sector in Zimbabwe" 2019 Africa Development 87-106

Gukurume and Mahiya 2020 JSAS
Gukurume S and Mahiya IT "Mobile Money and the (Un)Making of Social Relations in Chivi, Zimbabwe" 2020 JSAS 1203-1217

Han et al 2020 Digital Finance
Han J et al "Artificial Intelligence for Anti-Money Laundering: A Review and Extension" 2020 Digital Finance 1-29

Electronic copy available at: https://ssrn.com/abstract=3897801
Hove 2017 *Afr Stud Q*
Hove M "Endangered Human Security in Cash Strapped Zimbabwe, 2007-2008" 2017 *Afr Stud Q* 45-65

Irwin, Choo and Liu 2012 *JMLC*
Irwin ASM, Choo KKR and Liu L "An Analysis of Money Laundering and Terrorism Financing Typologies" 2012 *JMLC* 85-111

Jamshidi et al "Novel Multiobjective Approach"
Jamshidi MB et al "A Novel Multiobjective Approach for Detecting Money Laundering with a Neuro-Fuzzy Technique" in Institute of Electrical and Electronics Engineers *Proceedings of the 16th International Conference on Networking, Sensing and Control* (May 9-11 May 2019 Banff Alberta) 454-458

Jefferis 2020 *ISS Policy Brief*
Jefferis K "Zimbabwe's Currency 'Curse' and the Economic Malaise" 2020 *ISS Policy Brief* 1-12

Kairiza *Unbundling Zimbabwe's Journey to Hyperinflation*  
Kairiza T *Unbundling Zimbabwe’s Journey to Hyperinflation and Official Dollarization* (National Graduate Institute for Policy Studies, Policy Information Center Tokyo 2009)

Kavila and Le Roux 2017 *AREF*
Kavila W and Le Roux P "The Role of Monetary Policy in Zimbabwe’s Hyperinflation Episode" 2017 *AREF* 131-166

Kerwer 2015 *Governance*
Kerwer D "Rules that Many Use: Standards and Global Regulation" 2015 *Governance* 611-632

Königstorfer and Thalmann 2020 *J Behav Exp Finance*
Königstorfer F and Thalmann S "Applications of Artificial Intelligence in Commercial Banks: A Research Agenda for Behavioral Finance" 2020 *J Behav Exp Finance* 1-15

Kupakuwana "Sustainable Retail Banking"
Kupakuwana PS "Sustainable Retail Banking and Asset Management: Lessons from Challenges Faced by Entrepreneurs in African Economies" in Burger-Helmchen T (ed) *Entrepreneurship: Gender, Geographies and Social Context* (InTech Rijeka 2012) 191-208

Kuznetsova, Shuniaeva and Murkshtis 2020 *IJASOS*
Kuznetsova O, Shuniaeva V and Murkshtis M "Transnational Crime as a Threat to the World Community" 2020 *IJASOS* 145-149
Levi 2015 *Eur J Crim Pol Res*
Levi M "Money for Crime and Money from Crime: Financing Crime and Laundering Crime Proceeds" 2015 *Eur J Crim Pol Res* 275-297

Levi 2020 *Asian J Criminol*
Levi M "Evaluating the Control of Money Laundering and its Underlying Offences" 2020 *Asian J Criminol* 301-320

Lokanan and Nasimi 2020 *JMLC*
Lokanan ME and Nasimi N "The Effectiveness of Anti-Money Laundering Policies and Procedures within the Banking Sector in Bahrain" 2020 *JMLC* 769-781

Maguchu 2017 *JMLC*
Maguchu P "Money Laundering, Lawyers and President's Intervention in Zimbabwe" 2017 *JMLC* 138-149

Maguchu 2018 *Afr Secur Rev*
Maguchu P "Revisiting Money-Laundering Legislation in Zimbabwe and the Role of International Organisations" 2018 *Afr Secur Rev* 278-290

Makaye and Mapuva 2016 *Public Policy and Administration Research*
Makaye P and Mapuva J "Unpacking Zimbabwe's Enduring Economic Quagmire: Interrogating the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimASSET)" 2016 *Public Policy and Administration Research* 13-20

Makina 2010 *J Dev Soc*
Makina D "Historical Perspective on Zimbabwe's Economic Performance: A Tale of Five Lost Decades" 2010 *J Dev Soc* 99-123

Mambondiani, Zhang and Arun 2012 *IJEFI*
Mambondiani L, Zhang VF and Arun T "Corporate Governance and Bank Performance: Evidence from Zimbabwe" 2012 *IJEFI* 1-32

Maroleng 2006 *Afr Secur Stud*
Maroleng C "Zimbabwe: Confusion Worse Confounded" 2006 *Afr Secur Stud* 43-47

Maune 2015 *Risk Governance and Control*
Maune A "A Talmudic Perspective of the Zimbabwean Banking Crisis of 2004/2005" 2015 *Risk Governance and Control: Financial Markets and Institutions* 104-113
Mawanza, Santu and Mdlongwa 2018 *IRMM*
Mawanza W, Santu TC and Mdlongwa S "International Review of Corporate Governance Compliance Model: The Extent to which Financial Institutions have Complied with the Reserve Bank of Zimbabwe (RBZ) Corporate Governance Guideline No. 01-2004/BSD of 2004" 2018 *IRMM* 74-80

McDowell and Novis 2001 *Economic Perspectives*
McDowell J and Novis G "The Consequences of Money Laundering and Financial Crime" 2001 *Economic Perspectives* 6-8

Menz 2019 *JMLC*
Menz M "Beyond Placement, Layering and Integration – The Perception of Trade-Based Money Laundering Risk in UK Financial Services" 2019 *Journal of Money Laundering Control* 614-625

Mikeladze 2018 *Int J Inf Theories Appl*
Mikeladze A "Do Trendy Technologies Facilitate Money Laundering" 2018 *Int J Inf Theories Appl* 190-199

Miki 2020 *Economic Development*
Miki R "The Impact of Digitization on Financial Markets and their Tendency on Global Growth" 2020 *Economic Development* 133-145

Mishkin *Economics of Money*
Mishkin FS *The Economics of Money, Banking, and Financial Markets* 12th ed (Pearson Education London 2019)

Mkodzongi and Lawrence 2019 *Rev Afr Polit Econ*
Mkodzongi G and Lawrence P "The Fast-Track Land Reform and Agrarian Change in Zimbabwe" 2019 *Rev Afr Polit Econ* 1-13

Mlambo 2017 *J Dev Soc*
Mlambo AS "From an Industrial Powerhouse to a Nation of Vendors: Over Two Decades of Economic Decline and Deindustrialization in Zimbabwe 1990-2015" 2017 *J Dev Soc* 99-125

Morris-Cotterill 1999 *Int Rev Law Comput Tech*
Morris-Cotterill N "Use and Abuse of the Internet in Fraud and Money Laundering" 1999 *Int Rev Law Comput Tech* 211-228

Moyo 2020 *GJMBR*
Moyo G "The Bane of Financial Crime and Corruption amid Covid-19 Pandemic in Zimbabwe" 2020 *GJMBR* 37-45
Mulig and Smith 2004 *Internal Auditing*
Mulig EV and Smith LM "Understanding and Preventing Money Laundering" 2004 *Internal Auditing* 22-25

Munangagwa 2009 *Gettysburg Economic Review*
Munangagwa C "The Economic Decline of Zimbabwe" 2009 *Gettysburg Economic Review* 110-129

Munoangira and Kaja 2016 *EJBM*
Munoangira A and Kaja P "Strategies to Enhance Public Confidence in the Zimbabwean Banking Sector" 2016 *EJBM* 195-209

Mutizwa 2020 *JAPS*
Mutizwa B "COVID-19 a Global Nightmare: Revamping the Zimbabwean Health Sector (ZHS) for Future Epidemic and Pandemic Management" 2020 *JAPS* 59-74

Muzanarwo, Fah and Chen 2020 *IJPR*
Muzanarwo P, Fah BCY and Chen TK "The Data Driven Transformation of Zimbabwean Banks from Product Centric to Customer Service Delivery" 2020 *IJPR* 855-860

Nanyun 2020 *JMLC*
Nanyun NM "Role of FATF on Financial Systems of Countries: Successes and Challenges" 2020 *JMLC* 1-12

Narayan 2019 *Stat LR*
Narayan S "Anti-Money Laundering Law in India: A 'Glocalization' Model" 2019 *Stat LR* 224-235

Ncube and Okeke-Uzodike 2015 *JoAFA*
Ncube C and Okeke-Uzodike U "Understanding Illicit Financial Flows in Post-2000 Zimbabwe" 2015 *JoAFA* 93-112

Ndiweni and Verhoeven 2013 *AJAAF*
Ndiweni E and Verhoeven H "The Rise of Informal Entrepreneurs in Zimbabwe: Evidence of Economic Growth or Failure of Economic Policies?" 2013 *AJAAF* 1-17

Neudek, Zyhlarz-Shaw and Lovell 1995 *ECCL*
Neudek K, Zyhlarz-Shaw S and Lovell B "The World Ministerial Conference on Organized Transnational Crime: Background, Results and Follow-Up" 1995 *ECCL* 88-97

Electronic copy available at: https://ssrn.com/abstract=3897801
Newbury 2017 *JMLC*
Newbury M "Designated Non-Financial Businesses and Professions: The Weak Link in Australia's AML/CTF Regime" 2017 *JMLC* 247-261

Ngwenya 2020 *AJDS*
Ngwenya B "The Continuance of Usage of Mobile Money Platforms in Zimbabwe: The Function of Utilitarian, Hedonic, and Personal Values" 2020 *AJDS* 123-151

Ntege 2020 *Journal of the Institute for African Studies*
Ntege E "KEEPING FINANCIAL SYSTEM CLEAN: SUPPRESSING TERRORIST INFILTRATION OF MONEY OR VALUE TRANSFER SERVICES IN EAST AFRICA" 2020 *Journal of the Institute for African Studies* 28-38

Nurhadiyanto 2020 *APFJ*
Nurhadiyanto L "The Identification of Money Laundering on Drug Trafficking" 2020 *APFJ* 68-74

Nyoka 2015 *Banks and Bank Systems*
Nyoka C "Banks and the Fallacy of Supervision: The Case for Zimbabwe" 2015 *Banks and Bank Systems* 8-17

Nyon 2018 *JBM*
Nyon T "A Critical Diagnosis of the Success/Failure of Economic Policies in Zimbabwe during the Banana (1980-1987) and the Mugabe (1988-2017) Administrations: Learning the Hard Way" 2018 *JBM* 27-33

OECD *Money Laundering and Terrorist Financing Awareness Handbook*
Organisation for Economic Co-operation and Development *Money Laundering and Terrorist Financing Awareness Handbook for Tax Examiners and Tax Auditors* (OECD Paris 2019)

Oldekop et al 2020 *World Development*
Oldekop JA et al "COVID-19 and the Case for Global Development" 2020 *World Development* https://doi.org/10.1016/j.worlddev.2020.105044

O'Reilly *Investment Industry*
O'Reilly IR *The Investment Industry: A Top-Down View* (CFA Institute Charlottesville 2014)

Pasara and Garidzirai 2020 *Economics*
Pasara MT and Garidzirai R "The Boomerang Effects: An Analysis of the Pre and Post Dollarisation Era in Zimbabwe" 2020 *Economics* 1-20
Pfumorodze and Nzonzo 2010 *Indian Journal of Corporate Governance*
Pfumorodze J and Nzonzo JC "Some Reflections on Corporate Governance in the Banking Sector in Zimbabwe" 2010 *Indian Journal of Corporate Governance* 51-64

Pol 2020 *PDP*
Pol RF "Anti-Money Laundering: The World's Least Effective Policy Experiment? Together, we can Fix it" 2020 *PDP* 73-94

Robb, Tausha and Vilakazi "Competition and Regulation"
Robb G, Tausha C and Vilakazi T "Competition and Regulation in Zimbabwe’s Emerging Mobile Payments Markets" in Klaaren J, Roberts S and Valodia I (eds) *Competition Law and Economic Regulation: Addressing Market Power in Africa* (Wits University Press, Johannesburg 2017) 215-233

Robinson *Zimbabwe’s Hyperinflation*
Robinson P *Zimbabwe’s Hyperinflation: The House is on Fire – but does the Government Know it is Dousing the Flames with Petrol?* (Friedrich-Ebert-Stiftung, Referat Afrika Bonn 2006)

Rose 2020 *AJIL*
Rose C "The Creation of a Review Mechanism for the UN Convention against Transnational Organised Crime and its Protocols" 2020 *AJIL* 51-67

Sailakshmi 2020 *IJRAR*
Sailakshmi B "The Role of Financial Markets for Economic Growth" 2020 *IJRAR* 518-520

Salehi 2008 *ZIREB*
Salehi M "The Role of Financial Intermediaries in Capital Market" 2008 *ZIREB* 97-109

Sandra 2021 *IJRESM*
Sandra S "A Study of Indian Derivatives Market and its Current Position in Global Financial Derivatives Market" 2021 *IJRESM* 1-6

Sanusi, Rameli and Isa 2015 *Procedia Economics and Finance*
Sanusi ZM, Rameli MNF and Isa YM "Fraud Schemes in the Banking Institutions: Prevention Measures to Avoid Severe Financial Loss" 2015 *Procedia Economics and Finance* 107-113

Sarigul 2013 *IJBMS*
Sarigul H "Money Laundering and Abuse of the Financial System" 2013 *IJBMS* 287-301
Schroeder 2001 *FBI Law Enforcement Bulletin*
Schroeder WR "Money Laundering: A Global Threat and the International Community's Response" 2001 *FBI Law Enforcement Bulletin* 1-9

Setiadi and Andriasari 2019 *ASSEHR*
Setiadi E and Andriasari D "The Correlation and Cohesion of Criminal Act of Money Laundering (TPPU) and Criminal Act of Human Trafficking (TPPO) Perceived from the Perspective of Criminal Law Reform in Indonesia" 2019 *ASSEHR* 553-556

Shambira 2020 *EJSSS*
Shambira L "Exploring the Adoption of Artificial Intelligence in the Zimbabwe Banking Sector" 2020 *EJSSS* 110-124

Sifile and Dangwa 2018 *JBM*
Sifile O and Dangwa P "Corporate Governance and the Law Governing the Management of Companies in Zimbabwe" 2018 *JBM* 66-70

Simwayi and Haseed 2012 *JMLC*
Simwayi M and Haseed M "The Role of Financial Intelligence Units in Combating Money Laundering: A Comparative Analysis of Zambia, Zimbabwe and Malawi" 2012 *JMLC* 112-134

Singh, Ramasubramanian and Shivam *Building an Enterprise Chatbot*
Singh A, Ramasubramanian K and Shivam S *Building an Enterprise Chatbot* (Apress New Delhi 2019)

Singh and Lin 2020 *JMLC*
Singh C and Lin W "Can Artificial Intelligence, RegTech and CharityTech Provide Effective Solutions for Anti-Money Laundering and Counter-Terror Financing Initiatives in Charitable Fundraising" 2020 *JMLC* 1-19

Singhal 2020 *IJP*
Singhal T "A Review of Coronavirus Disease-2019 (COVID-19)" 2020 *IJP* 281-286

Sittlington and Harvey 2018 *Crime, L & Soc Change*
Sittlington S and Harvey J "The Consequences of Money Laundering and Financial Crime" 2018 *Crime, L & Soc Change* 421-441

Sullivan *Anti-Money Laundering in a Nutshell*
Sullivan K *Anti-Money Laundering in a Nutshell: Awareness and Compliance for Financial Personnel and Business Managers* (Apress Berkeley 2015)
Teichman 2020 *Crime, L & Soc Change*
Teichman F "Recent Trends in Money Laundering" 2020 *Crime, L & Soc Change* 237-247

Teichmann and Falker 2020 *JFRC*
Teichmann FM and Falker M "Money Laundering through Banks in Dubai" 2020 *JFRC* 337-352

Teichmann and Falker 2020 *JMLC*
Teichmann FMJ and Falker M "Money Laundering through Raw Diamonds" 2020 *JMLC* 1-13

Troy 2019 *Am Crim L Rev*
Troy N "Financial Institutions Fraud" 2019 *Am Crim L Rev* 932-962

Van Duyne *Critical Handbook of Money Laundering*
Van Duyne PC *The Critical Handbook of Money Laundering: Policy, Analysis and Myths* (Palgrave Macmillan London 2018)

Vlcek 2018 *Crime, L & Soc Change*
Vlcek W "Global Financial Governance and the Informal: Limits to the Regulation of Money" 2018 *Crime, L & Soc Change* 249-264

Vousinas 2015 *JFRC*
Vousinas GL "Supervision of Financial Institutions: The Transition from Basel I to Basel III. A Critical Appraisal of the Newly Established Regulatory Framework" 2015 *JFRC* 383-402

Wagner 2019 *Gesellschaft für Informatik*
Wagner D "Latent Representations of Transaction Network Graphs in Continuous Vector Spaces as Features for Money Laundering Detection" 2019 *Gesellschaft für Informatik* 1-12

Waliszewski and Warchlewska 2020 *ESI*
Waliszewski K and Warchlewska A "Attitudes towards Artificial Intelligence in the Area of Personal Financial Planning: A Case Study of Selected Countries" 2020 *ESI* 399-420

Woodsome and Ramachandran *Fixing AML*
Woodsome J and Ramachandran V *Fixing AML: Can New Technology Help Address the De-risking Dilemma?* (Centre for Global Development Washington DC 2018)

Zabyelina 2012 *Global Crime*
Zabyelina Y "Costs and Benefits of Informal Economy: Shuttle Trade and Crime at Cherkizovsky Market" 2012 *Global Crime* 95-108
Zhou 2014 *RJFA*
Zhou S "An Exploratory Study on the Use of Red Flags to Reduce Fraud in the Zimbabwean Corporates" 2014 *RJFA* 13-16

**Case law**

*ECOCASH Zimbabwe (Pvt) Ltd vs RBZ* (HH 333-20, HC 3007/20) [2020] ZWHC 333 (26 May 2020)
*S v Chikukwa* (HH 813/16 CRB NO 146/16) [2016] ZWHHC 813 (3 October 2016)

**Legislation**

*Bank Use Promotion and Suppression of Money Laundering Act* [Chapter 24:24] 2 of 2004
*Criminal Law Codification and Reform Act* [Chapter 9:23] 23 of 2004
*Exchange Control (Suspension of Fungibility of Certain Shares) Order* General Notice 583 of 2020
*Exchange Controls Act* [Chapter 22:05] 14 of 2002
*Money Laundering and Proceeds of Crime Act* [Chapter 9:24] 4 of 2013
*Troubled Financial Institutions (Resolution) Act* [Chapter 24:28] 31 of 2004
*Prevention of Corruption Act* [Chapter 9:16] 27 of 2004
*Reserve Bank of Zimbabwe Act* [Chapter 22:15] 3 of 2016
*Statutory Instrument Regulations Presidential Powers (Temporary Measures) (Currency Revaluation)* 199 of 2006
*Statutory Instrument Banking (Money Transmission, Mobile Banking and Mobile Money Interoperability) Regulations* 80 of 2020

**International instruments**

*Naples Political Declaration and Global Action Plan against Organized Transnational Crime* (1995)
*Political Declaration and Action Plan against Money Laundering* UN Doc A/RES/S-202 (1988)
*United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances* (1988)
*United Nations Convention against Transnational Organized Crime* (2000)
Internet sources

Anon Date Unknown https://pubdocs.worldbank.org/en/834721427730119379/AML-Module-2.pdf
Anon Date Unknown Module 2 Role of the Financial Intelligence Unit (Incorporating Peer Reviewers Comments) https://pubdocs.worldbank.org/en/834721427730119379/AML-Module-2.pdf accessed 6 May 2021

BIS 2011 https://www.bis.org/publ/bcbs213.pdf
Bank for International Settlements 2011 Basel Committee on Banking Supervision Consultative Document: Core Principles for Effective Banking Supervision https://www.bis.org/publ/bcbs213.pdf accessed 6 May 2021

Bwititi 2020 https://www.sundaymail.co.zw/old-mutual-in-govts-cross-hairs-zse-giant-faces-money-laundering-charges
Bwititi K 2020 Old Mutual in Gov't's Cross-hairs...ZSE Giant Faces Money Laundering Charges https://www.sundaymail.co.zw/old-mutual-in-govts-cross-hairs-zse-giant-faces-money-laundering-charges accessed 6 May 2021

Chami et al 2020 https://arxiv.org/pdf/2005.03675.pdf
Chami I et al 2021 Machine Learning on Graphs: A Model and Comprehensive Taxonomy https://arxiv.org/pdf/2005.03675.pdf accessed 6 May 2021

Chingono 2020 https://www.theguardian.com/global-development/2020/jul/09/zimbabwe-health-minister-facing-coronavirus-corruption-charge-sacked
Chingono N 2020 Zimbabwe Health Minister Facing Coronavirus Corruption Charge Sacked https://www.theguardian.com/global-development/2020/jul/09/zimbabwe-health-minister-facing-coronavirus-corruption-charge-sacked accessed 8 May 2021

Dzirutwe 2020 https://www.businesslive.co.za/bd/world/africa/2020-07-28-zimbabwe-trading-to-resume-but-old-mutual-and-ppc-stocks-still-suspended/
Dzirutwe M 2020 Zimbabwe Trading to Resume, but Old Mutual and PPC Stocks Still Suspended https://www.businesslive.co.za/bd/world/africa/2020-07-28-zimbabwe-trading-to-resume-but-old-mutual-and-ppc-stocks-still-suspended/ accessed 8 May 2021

Electronic copy available at: https://ssrn.com/abstract=3897801
EBF 2019 https://www.ebf.eu/wp-content/uploads/2020/03/EBF-AI-paper_final-.pdf
European Banking Federation 2019 EBF Position Paper on AI in the Banking Industry https://www.ebf.eu/wp-content/uploads/2020/03/EBF-AI-paper_final-.pdf accessed 8 May 2021
FATF 2013 https://www.fatf-gafi.org/publications/high-risk-and-other-monitored-jurisdictions/documents/improvingglobalamlcftcomplianceon-goingprocess-22february2013.html#zimbabwe
Financial Action Task Force 2013 Improving Global AML/CFT Compliance: On-going Process - 22 February 2013 https://www.fatf-gafi.org/publications/high-risk-and-other-monitored-jurisdictions/documents/improvingglobalamlcftcomplianceon-goingprocess-22february2013.html#zimbabwe accessed 3 December 2020
FATF 2020 http://www.fatf-gafi.org/about/
Financial Action Task Force 2020 Who we are http://www.fatf-gafi.org/about/ accessed 3 December 2020
FATF 2020 http://www.fatf-gafi.org/publications/fatfrecommendations/documents/fatfrecommendations.html
Financial Action Task Force 2020 The FATF Recommendations: International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation http://www.fatf-gafi.org/publications/fatfrecommendations/documents/fatfrecommendations.html accessed 3 December 2020
FATF 2020 https://www.fatf-gafi.org/faq/moneylaundering/
Financial Action Task Force 2020 What is Money Laundering? https://www.fatf-gafi.org/faq/moneylaundering/ accessed 2 December 2020
Fletcher, Larkin and Corbet 2020 http://dx.doi.org/10.2139/ssrn.3704279
Fletcher E, Larkin C and Corbet S 2020 Cryptocurrency Regulation: Countering Money Laundering and Terrorist Financing http://dx.doi.org/10.2139/ssrn.3704279 accessed 8 May 2021
INSA Financial Threats Council 2020 https://www.insaonline.org/wp-content/uploads/2020/05/INSA_WP_TBML.pdf
Intelligence and National Security Alliance Financial Threats Council 2020 Using Intelligence to Combat Trade-based Money Laundering https://www.insaonline.org/wp-content/uploads/2020/05/INSA_WP_TBML.pdf accessed 8 May 2020
Kanyeze, Chitambara and Tyson 2017 https://set.odi.org/wp-content/uploads/2017/08/SET-Outlook-for-Zimbabwe-Economy_Sep2017.pdf
Kanyeze G, Chitambara P and Tyson J 2017 The Outlook for the Zimbabwean Economy https://set.odi.org/wp-content/uploads/2017/08/SET-Outlook-for-Zimbabwe-Economy_Sep2017.pdf accessed 8 May 2021

Kodongwe 2017 http://dx.doi.org/10.2139/ssrn.3046227
Kodongwe S 2017 Anti-Money Laundering and Combating of the Financing of Terrorism - Focus on Zimbabwe http://dx.doi.org/10.2139/ssrn.3046227 accessed 8 May 2021

Kwaramba 2020 https://www.iol.co.za/the-star/opinion-analysis/opinion-reserve-bank-of-zims-restrictions-on-mobile-money-left-thousands-jobless-1b5620c3-06e2-4e17-8910-7e36eb1dc777
Kwaramba M 2020 Reserve Bank of Zim’s Restrictions on Mobile Money Left Thousands Jobless https://www.iol.co.za/the-star/opinion-analysis/opinion-reserve-bank-of-zims-restrictions-on-mobile-money-left-thousands-jobless-1b5620c3-06e2-4e17-8910-7e36eb1dc777 accessed 11 January 2021

Narayanaswamy, Blitzer and Carvajal 2017 https://openknowledge.worldbank.org/bitstream/handle/10986/30354/112692-BRI-EM-compass-Note-28-Capital-Markets-FINAL-1-26-FINAL2.pdf?sequence=1
Narayanaswamy M, Blitzer C and Carvajal A 2017 The Importance of Local Capital Markets for Financing Development https://openknowledge.worldbank.org/bitstream/handle/10986/30354/112692-BRI-EM-compass-Note-28-Capital-Markets-FINAL-1-26-FINAL2.pdf?sequence=1 accessed 10 May 2021

National Social Security Authority 2009 http://www.saspen.org/DocumentsThirdParty/MANAGING-SOCIAL-SECURITY-UNDER-A-HYPERINFLATIONARY ENVIRONMENT_H-CHIKOVA-NSSA-ZIM.pdf
National Social Security Authority 2009 Managing Social Security in an Unstable Economy: The Case of the National Social Security Authority – Zimbabwe http://www.saspen.org/DocumentsThirdParty/MANAGING-SOCIAL-SECURITY-UNDER-A-HYPERINFLATIONARY-ENVIRONMENT_H-CHIKOVA-NSSA-ZIM.pdf accessed 6 May 2021

Ndlovu 2020 https://www.businesslive.co.za/bd/world/africa/2020-07-23-zimbabwes-mobile-money-shutdown-pits-mnangagwa-against-tycoon/
Ndlovu R 2020 Zimbabwe’s Mobile-money Shutdown Pits Mnangagwa against Tycoon https://www.businesslive.co.za/bd/world/africa/2020-07-23-
zimbabwe-mobile-money-shutdown-pits-mnangagwa-against-tycoon/ accessed 10 May 2021

Ndlovu 2020 https://www.thearticle.com/covid-19-corruption-and-stealing-the-recovery
Ndlovu N 2020 Covid-19, Corruption and Stealing the Recovery https://www.thearticle.com/covid-19-corruption-and-stealing-the-recovery accessed 10 May 2021

Ndoro 2020 https://iharare.com/zimbabwe-suspends-fungibility-of-shares-to-control-exchange/
Ndoro TE 2020 Zimbabwe Suspends Fungibility of Shares to Control Exchange Rate https://iharare.com/zimbabwe-suspends-fungibility-of-shares-to-control-exchange/ accessed 10 May 2021

Nyahasha 2020 https://www.techzim.co.zw/2020/05/ecocash-ceo-cassava-ceo-charged-under-anti-money-laundering-law/
Nyahasha T 2020 EcoCash CEO & Cassava CEO Charged under Anti Money Laundering Law https://www.techzim.co.zw/2020/05/ecocash-ceo-cassava-ceo-charged-under-anti-money-laundering-law/ accessed 10 May 2021

Ozili and Arun 2020 http://dx.doi.org/10.2139/ssrn.3562570
Ozili P and Arun T 2020 Spillover of COVID-19: Impact on the Global Economy http://dx.doi.org/10.2139/ssrn.3562570 accessed 10 May 2021

Pleyer 2020 https://www.fatf-gafi.org/media/fatf/documents/German-Presidency-Priorities.pdf
Pleyer M 2020 Priorities for the Financial Action Task Force (FATF) under the German Presidency: Objectives for 2020-2022 https://www.fatf-gafi.org/media/fatf/documents/German-Presidency-Priorities.pdf accessed 8 May 2021

Reserve Bank of Zimbabwe 2017 https://www.fiu.co.zw/wp-content/uploads/2017/07/AML-CFT-Guidelines-for-Casinos-2015-final.pdf
Reserve Bank of Zimbabwe, Bank Use Promotion and Suppression of Money Laundering Unit 2017 Guidelines on Anti-Money Laundering and Combating Financing of Terrorism for Casinos, 2015 https://www.fiu.co.zw/wp-content/uploads/2017/07/AML-CFT-Guidelines-for-Casinos-2015-final.pdf accessed 10 May 2021

Sarkar 2015 http://dx.doi.org/10.2139/ssrn.2638252
Sarkar S 2015 The Comply-or-Explain Approach for Enforcing Governance Norms http://dx.doi.org/10.2139/ssrn.2638252 accessed 10 May 2021
UN Date Unknown https://www.unodc.org/unodc/en/commissions/CND/Political_Declarations/Political-Declarations_Index.html
United Nations Date Unknown Political Declarations on the World Drug Problem
https://www.unodc.org/unodc/en/commissions/CND/Political_Declarations/Political-Declarations_Index.html accessed 13 January 2020

UNDP 2020 https://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_ZW_Briefs_Socioeconomic_impact_of_Corona_virus_01_2020.pdf
United Nations Development Programme in Zimbabwe 2020 A Preliminary Assessment of the Socio-Economic Impact of Coronavirus (COVID-19) on Zimbabwe
https://reliefweb.int/sites/reliefweb.int/files/resources/UNDP_ZW_Briefs_Socioeconomic_impact_of_Corona_virus_01_2020.pdf accessed 10 May 2021

List of Abbreviations

Afr Secur Rev African Security Review
Afr Secur Stud African Security Studies
Afr Stud Q African Studies Quarterly
AI Artificial Intelligence
AJAAF African Journal of Accounting, Auditing and Finance
AJDS African Journal of Development Studies
AJIL American Journal of International Law
Am Crim L Rev American Law Criminal Review
AML/CFT Anti-Money Laundering/Combating the Financing of Terrorism
APFJ Asian Pacific Fraud Journal
AREF African Review of Economics and Finance
Asian J Criminol Asian Journal of Criminology
ASSEHR Advances in Social Science, Education and Humanities Research
BCBS Basel Committee on Banking Supervision
BIS Bank of International Settlements
BJEMT British Journal of Economics, Management and Trade
DNFBPs Designated Nonfinancial Business and Professions
Crime, L & Soc Change Crime, Law and Social Change

Electronic copy available at: https://ssrn.com/abstract=3897801
| Abbreviation | Full Form |
|--------------|-----------|
| EBF          | European Banking Federation |
| ECCL         | European Journal of Crime, Criminal Law and Criminal Justice |
| EJLE         | European Journal of Law and Economics |
| EJBM         | European Journal of Business and Management |
| EJSSS        | European Journal of Social Sciences Studies |
| ENG          | ENG Capital Asset Management |
| ESAAMLG      | Eastern and Southern Africa Anti-Money Laundering Group |
| ESAP         | Economic Structural Adjustment Programme |
| ESI          | Entrepreneurship and Sustainability Issues |
| Eur J Crim Pol Res | European Journal on Criminal Policy and Research |
| Expert Syst Appl | Expert Systems with Applications |
| FATF         | Financial Action Task Force |
| FBI Law Enforcement Bulletin | Federal Bureau of Investigation Law Enforcement Bulletin |
| FINCEN       | Financial Crimes Enforcement Network |
| FIU          | Financial Intelligence Inspectorate Evaluation Unit |
| FTLP         | Fast Track Land Reform Program |
| GJMBR        | Global Journal of Management and Business Research |
| IJASOS       | International E-Journal of Advances in Social Sciences |
| IJBMS        | International Journal of Business and Management Studies |
| IJECM        | International Journal of Economics, Commerce and Management |
| IJEFI        | International Journal of Economics and Financial Issues |
| IJP          | Indian Journal of Pediatrics |
| IJPR         | International Journal of Pharmaceutical Research |
| IJRAR        | International Journal of Research and Analytical Reviews |
| IJRESM       | International Journal of Research in Engineering, Science and Management |
| INSA         | Intelligence and National Security Alliance |
Int J Comp Appl Crim  International Journal of Comparative and Applied Criminal Justice

Int J Inf Theories Appl  International Journal: Information Theories and Applications

Int Rev Law Comput Tech  International Review of Law, Computers and Technology

IREF  International Review of Economics and Finance

IRMM  International Review of Management and Marketing

ISS  Institute for Security Studies

ISS Policy Brief  Institute for Security Studies Policy Brief

JAPS  Journal of African Problems and Solutions

J Behav Exp Finance  Journal of Behavioral and Experimental Finance

J Bus Res  Journal of Business Research

JBM  Journal of Business and Management

J Dev Soc  Journal of Developing Societies

JEBS  Journal of Economics and Behavioral Studies

JFRC  Journal of Financial Regulation and Compliance

JMLC  Journal of Money Laundering Control

JoAFA  Journal of African Foreign Affairs

JSAS  Journal of Southern African Studies

MERP  Millennium Economic Recovery Programme

NERP  National Economic Revival Program

OECD  Organisation for Economic Co-operation and Development

PDP  Policy Design and Practice

PPC  Pretoria Portland Cement

Q J Austrian Econ  Quarterly Journal of Austrian Economy

Rev Afr Polit Econ  Review of African Political Economy

RJFA  Research Journal of Finance and Accounting

RBZ  Reserve Bank of Zimbabwe

Sci Total Environ  Science of the Total Environment

Stat LR  Statute Law Review

TBF  Troubled Bank Fund

U Botswana LJ  University of Botswana Law Journal

UK  United Kingdom

UN  United Nations

Electronic copy available at: https://ssrn.com/abstract=3897801
| Abbreviation | Description |
|--------------|-------------|
| UNDP         | United Nations Development Programme |
| UNTOC        | United Nations Convention Against Transnational Organised Crime (2000) |
| USA          | United States of America |
| Va J Int'l L | Virginia Journal of International Law |
| Veteran L Rev| Veteran Law Review |
| WASJ         | World Applied Sciences Journal |
| ZIMPREST     | Zimbabwe Programme for Economic and Social Transformation |
| ZIREB        | Zagreb International Review of Economics and Business |
| ZSE          | Zimbabwe Stock Exchange |