

# Abstract

Cryptocurrencies have developed and widely spread within recent years. Their anonymous and decentralised characteristics have attracted criminals who leverage these technologies to sell and purchase illicit goods on the black market while concealing their identities and avoid prosecution. The new development of cryptocurrencies and their underlying architecture blockchain has had positive and negative effects on the success of law enforcement investigations. It is perceived as a threat when there are factors that increase the complexity of law enforcement investigations due to the use of highly anonymous cryptocurrencies and Bitcoin mixers. Cryptocurrencies are also perceived as a threat when criminals use them for money laundering purposes. Conversely, the rise of cryptocurrencies also introduces new opportunities for law enforcement investigations. Records of cryptocurrency transactions in the blockchain help law enforcement to trace suspicious addresses by the emergence and improvement of analysis tools. In parallel, anti-money laundering (AML) regulations and the financial authorities have proved to play a key role in fighting against money laundering and gather information on suspicious activities carried out through financial institutions. The analysis of this dissertation sets forth that cooperated efforts between regulatory entities, financial authorities and law enforcement agencies significantly enhance law enforcement capacities to fight against crime, cybercrime and money laundering related to cryptocurrencies.

