

Atomic swap: a risk for AML regulation?

Abstract

This thesis deals with atomic swaps. Particularly it deals with their characteristics and relation to AML regulation. The aim of this thesis is to assess the risks that atomic swaps pose to AML regulation and the ways in which these risks can be addressed.

The first part of this thesis briefly describes the concepts and technologies needed to understand atomic swaps. Among other things this part describes distributed databases, cryptographic keys, wallets, and virtual currency exchanges. This is followed by a description of the evolution of atomic swaps, how atomic swaps work and what are their advantages and disadvantages.

The second part analyses the current regulation against money laundering and terrorist financing from the perspective of FATF, the European Union and the Czech Republic in relation to virtual currencies and atomic swaps. Particularly it focuses on the definition of virtual currencies and obliged entities.

After the explanation how atomic swaps work and the analysis of AML regulation in relation to atomic swaps, it is possible to assess whether atomic swaps pose a risk to AML regulation. This is the focus of the third part of this thesis. It first introduces the issue of money laundering and the use of virtual currencies for illicit purposes in general. Finally, it examines the risks posed by virtual currencies, atomic swaps and the technologies that are gaining popularity thanks to atomic swaps. One of such technologies is DeFi, a software programme that runs on blockchain and provides financial services with virtual assets.

The fourth part examines the changes of AML regulation currently discussed in the European Union. Particularly what impact the changes will have on the regulation of virtual currencies and whether they address the risks associated with atomic swaps.

The fifth section outlines several regulatory approaches to AML regulation of virtual currencies and examines whether and how each approach addresses the risks associated with atomic swaps. It looks at the ban on virtual currencies in China, the obligation to link virtual currency wallets to bank accounts in South Korea, the FATF approach, the regulation of virtual currency wallets in the United States and Switzerland, a method called blacklisting, and finally, the technological solutions.

Keywords: cryptocurrencies, P2P, AML