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Islands unchained: The case of regulating virtual financial assets in Malta

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ABSTRACT: This article connects island studies with the field of economic security focussing on virtual asset regulation for commercial activity related to cryptocurrencies in small jurisdictions. Malta is at the centre of this case study, given the heated debate, and criticisms, when it enacted the virtual financial asset act (VFAA) in 2018. Instead of accepting small island states as peripheral, risky and insecure "tax and crypto-asset havens", the Maltese example highlights the legitimacy and competitiveness of licensing schemes for virtual asset business. A mixed method approach traces Maltese principles of virtual asset regulation in the proposal for a *Directive of Markets in Crypto-Assets (MiCA)* by the European Commission. The article concludes by emphasising the adherence of the Maltese VFAA to the rule of law and securing an emerging financial system. Avenues for future research include a comparative study of multiple small jurisdictions to create a taxonomy.

Keywords: blockchain, competitiveness, economic security, European Union, Malta, mixed methods, policy analysis, small island states, virtual asset regulation

Introduction

Since Malta joined the European Union (EU) in 2004, it has become part of the EU's security agenda which governs multiple subjects of security, although originally focusing on economic security exclusively (Christou et al., 2010). Security studies as a field and the definition of security, however, have also become more interconnected. For example, economic security extended beyond monetary policy and now also encompasses developmental policies, as well as enforcement action against illegal money flows that undermine the integrity of the monetary system. This paper focuses on the latter aspect of economic security by uncovering interdependencies between legislation of small states and enforcement action by supranational institutions tasked with ensure the security of the global financial system.

Small island jurisdictions like Malta or the British Virgin Islands (BVI) are portrayed as threats to the economic security of large states with high tax regimes (King, 2009) because preferential tax regimes in small places erode the tax revenue in the largest economies (Swank, 2006; Vleck, 2014). Meanwhile, low-tax regimes in small islands have a history of economic insecurity through colonisation (King, 2009). Contemporary authors of the British Empire,

describe vividly how the British Empire installed low tax schemes in its colonies and the extractive function of these regimes at the time (Ashley, 1968). Thus, the emergence of modern offshore financial centres in small states reaches deeper than the documented policy changes that occurred during the second half of the twentieth century.

For this reason, economic security is not an objective concept that applies to all actors in the same way at the same time. Conversely, it is argued that economic security is exclusionary because economic security of one, historically has created economic insecurity elsewhere. This has been the case, for example in the plantation economies of small islands (Aldrich & Johnson, 2018). This aligns with the understanding of security by human security studies, to which this paper subscribes to. When understanding security as intersectional and complex (Truong et al., 2014), in fact, the subjection of small island states to neoliberal development models (Swank, 2006) created economic insecurity by pressuring small populations into a paradigm of accelerating economic growth. Known business opportunities that viably achieved economic growth targets, then led to the persistence of tax regimes from the colonial past.

Moreover, Allred et al. (2017) refute the argument that so called 'tax havens' are incompliant or negligent with rules and procedures safeguarding the integrity of a globalised financial system. Although the discourse on large leaks of financial data, such as Paradise Papers and Panama Papers, suggests otherwise, corporate service providers in offshore financial centres (OFCs) are *more* likely to be compliant with applicable laws and regulations to prevent money laundering and terrorist financing than law firms and incorporation agents in large jurisdictions, such as the United States (US) (Allred et al., 2017).

Hence, small states' reliance on financial services and business friendly legislation strives towards the principle of economic security. It is the actors from large states that threaten economic security by exploit economic policies with colonial and neoliberal connotations to circumvent financial safeguards for economic gain. This is supported by literature on banking and finance, which documents such practices in connection to shadow banking that obfuscated debt on balance sheets of regulated financial institutions in response to the 2008 financial crisis (Burns, 2012).

Until 2008, the global financial system functioned through trusted intermediaries (Green, 2019; Juels et al., 2016; Kaplanov, 2012; Zellweger-Gutknecht, 2019). Trust in this regard meant that banks or money businesses obtained licences from the state, which regulated their undertakings, so people could rely on them. During the financial crisis in 2008, this trust had deteriorated significantly, as the 'Occupy Wall Street' movement showed (Reid, 2019, p. 121). Two untrusting parties, such as a property developer and a prospective homeowner, were now doubting the reliability of banks. With the implementation of the Bitcoin network, which Nakamoto (2008) had envisioned (Campbell-Verduyn, 2017; Chiu, 2021; de Filippi & Loveluck, 2016; Fox et al., 2019; Gruber, 2013; Kaplanov, 2012; Ron & Shamir, 2014), two parties could exchange units of account without having to fear that the units received have been double spent (de Filippi & Loveluck, 2016, p. 5).

While at that time, loans and mortgages were not yet available on the blockchain, the invention of the Bitcoin network fundamentally changed the hegemony of the financial sector (Hare, 2019). Today, the Bitcoin network has become the first widely accepted and decentralised "electronic cash (e-cash)" (Nakamoto, 2008), which mastered the prevention of double spending, a common problem among digital currencies (de Filippi & Loveluck, 2016, p. 5). Furthermore, distributed ledger technology (DLT) enabled complex financial

transactions to be transparently recorded and publicly available. This is a feature the traditional financial system was lacking because financial institutions resorted to offshore financial centres, where they offloaded their risky assets into holding structures to avoid them appearing on their balance sheets (Burns, 2012). In turn, nobody knew how severely banks were exposed to subprime mortgage defaults when the financial crisis unfolded in 2008.

As a small island state with a colonial past, Malta also had a history as an OFC (Fabri & Baldacchino, 1999). In practice, it enabled so called "harmful tax practices", which were combatted by the Organisation for Economic Development (OECD), because they erode the tax base of large welfare states (Ambrosanio & Caroppo, 2005, p. 690). Since then, Malta has repurposed its legal and financial infrastructure to regulate online gambling, offer citizenship by investment programs, install a tax credit system, and license business in virtual assets (FATF, 2022; Marian, 2019). These endeavours to attract foreign direct investment (FDI) and business in general has led to a discourse that *names* and *shames* Malta and small island states in general (Baldacchino & Veenendaal, 2018).

In 2021 a corruption case that involved high ranking politicians in Malta (European Parliament, 2021, p. 3), even led to the grey-listing of Malta by the Financial Action Taskforce (FATF) for one year (FATF, 2022). Malta's Virtual Financial Asset Act (VFAA), which was the most recent development in its financial regulation, then became the focus of concern. In the literature it was portrayed as "enabling" the cryptocurrency industry (Chiu, 2021), or legalising new schemes akin to "tax havens" (Gruber, 2013; Marian, 2019). The self-proclamation by Malta as the "blockchain island" (Cointelegraph, 2018) fuelled scepticism against the VFAA. As a result, Malta was portrayed as a "blockchain haven" (Marian, 2019, pp. 531), which disregarded international anti-money laundering (AML) and countering terrorist financing (CTF) regulations to bolster its own economy.

The announcement to implement regulation that covers virtual assets was thus perceived as having a significant impact on global economic security. Meanwhile, the supranational authorities for governing economic security launched enforcement actions due to an unrelated security incident in Malta (Surnina et al., 2018). In their co-occurrence, the two events created uncertainty regarding Malta's security risk profile, going forward. Although Malta was removed from the 'grey list' in 2022 (FATF, 2022; Reuters, 2022), its profile as a potentially risky jurisdiction remains. This gives reason to critically address the narrative in the literature, which argues against the compliance of the Maltese VFAA with the Anti-Money Laundering (AML) directives of the European Union (EU). In Buttigieg et al. (2019), the compliance of the VFAA with EU legislation had already been assessed.

This paper attempts to address the gap between formal compliance and the notion of small states' "flexible specialisation" (Baldacchino, 2019), by verifying previous results and comparing the Maltese legislation to the European Commission's (EC) proposal for a Directive on Markets in Crypto-Assets (MiCA) (European Commission, 2020).

Research analysed the MiCA proposal by the EC before it was voted into force by the European Parliament; the analysis of the coordinated draft by the EU policy making bodies provides relevant insight into the influence of Maltese legislation on virtual assets across Europe. Hence, this paper is able to analyse the EU legislation and its purported similarity to the Maltese VFAA before the proposed EU legislation was influenced by lobbying efforts or public discourse. In other words, the following analysis presents results that have now been confirmed by changes to the FATF policy regarding Malta and the news that the EC placing

the European Banking Authority (EBA) in the centre of its licensing regime (International Association for Trusted Blockchain Applications, 2022), just like the Malta Financial Services Authority (MFSA) was tasked with licensing virtual asset business in the VFAA.

For explaining the connection between the findings for early Maltese influence, which eventually led to the recent EU policy changes on virtual assets, as well as eased FATF scrutiny over Malta, the paper proceeds as follows. First, the paper explains how the history of 'tax havens' is intricately linked to the recent discourse on virtual assets through the lens of small jurisdictions. Secondly, the methodology section provides a detailed account of the research objectives and justifies the aptness of the mixed method document analysis for responding to the research question. Thereafter, this paper proceeds to describe the research method in detail and outline the data that is analysed herein. The fifth section then discusses the results from the keyword search and qualitative analysis. Finally, the conclusions connect Malta's specialisation on VFAs in the context of MiCA and, despite the scrutiny it faced, with the security discourse at large. In sum, this contribution explains the regulation of virtual assets as a phenomenon that is at the heart of a shift from hegemonic security studies to a multipolar world, specifically, through the focus on smallness and flexible specialisation.

A shared history of shame

During the twentieth century, small OFCs specialised in the provision of infrastructure to enable global financial flows (Hampton, 1996; Roberts, 1997). Yet, small states and territories like the Cayman Islands, Malta or the British Virgin Islands (BVI) did not primarily build physical infrastructure. Instead, regulatory regimes in small jurisdictions became the building blocks of a globalised financial sector and enabled banks to exist on paper with a registered address in one of the OFCs (Roberts, 1997). When commercial operations, which exploited these regimes, emerged in the late twentieth century, only high net worth individuals or institutions could afford to make use of the costly and inefficient regimes (Cobb, 1998). Furthermore, with the advent of the new millennium, the jurisdictions that enabled these services experienced increasing scrutiny by the OECD and OFCs' status of offering secrecy was lost (Ambrosanio & Caroppo, 2005). A few years later, the Bitcoin network started to operate. Soon, Bitcoin emerged as the currency of choice for malicious actors online (Kaplanov, 2012), because its virtual infrastructure allowed funds to be moved pseudonymously and without an intermediary.

Before specific challenges for the regulation of virtual assets in small island jurisdictions are addressed, the paper reviews the literature on the significance of the concept of virtual assets.

Classifications of virtual assets range from technical definitions, where virtual assets are products of code (DuPont, 2017, p. 168), excludable value data (Zellweger-Gutknecht, 2019, p. 86), or more monetarist stances interpreting virtual assets as incentives for network usage (Nakamoto, 2008, p. 4). Taking a socio-economic perspective, it is not far-fetched to conclude that virtual assets are community money (Geva & Geva, 2019, p. 291) and with increasing acceptance inevitably become money. Meanwhile, legalists prefer to look at existing laws and regulations of virtual assets to conclude that it cannot be money (Green, 2019, p. 26), because most jurisdictions do not treat it as such (Yereli & Orkunoglu-Sahin, 2018, p. 224). Interestingly, the first reason for governments to classify virtual assets beyond their characteristic of not representing physical property was to apply taxes. Therefore, some

scholars tend to frame small jurisdictions' welcoming attitude towards virtual asset businesses as a continuation of their lax tax haven policy.

The Bitcoin network might have been used by some for pseudonymously storing illicit funds. Bitcoin publicly records all financial transactions and makes them more transparent. Only its novelty posed challenges to financial regulators, who were preoccupied with the fallout of the financial crisis, as Bitcoin was still unregulated and under-researched (Marian, 2019; Yereli & Orkunoglu-Sahin, 2018). Thus, blockchain applications and their functionalities were an easy target for criminals to exploit in order to move illicit funds (Kaplanov, 2012). Sometimes criminal activities were discovered by law enforcement (Ron & Shamir, 2014). Eventually, Bitcoin gained popularity and the price of its unit of account increased. This led the way for legitimate businesses to enter the market by providing exchange services for United States Dollar (USD) and Bitcoin.

Now, two regulatory issues took precedence, especially in the United States (US). First, the literature on Bitcoin and blockchain was concerned that these financial gains were not taxed and overseen by the Internal Revenue Service (IRS) (Gruber, 2013; Marian, 2019). Second, the exchanges were unregulated or operated without a licence (Proctor, 2019). Both are issues that are ascribed to OFCs and small states and territories have been shamed for providing them. Generally, concerns within the traditional financial sector, heightened by the financial crisis, were projected onto distributed ledger technology (DLT). Even the publicity of blockchains, which enables blacklisting of funds (Möser & Narayanan, 2019), did not suffice to turn the tide of public opinion.

It was only ten years after the Bitcoin Network was created that media coverage of legitimate applications outweighed headlines of criminal activities on the blockchain (Campbell-Verduyn, 2017; Rodima-Taylor & Grimes, 2017). Thus, when small jurisdictions started to bring their legal and financial infrastructures to use, by regulating cryptocurrency businesses, literature which previously covered so called "tax havens" picked up on the newly coined "blockchain havens" (Gruber, 2013; Marian, 2019). Their concern was that OFCs would combine their functionalities of opaque low tax structures for corporations, which are thus able to shield their assets by adding a layer of pseudonymity using DLT. As a result, small states were discredited for choosing to license virtual asset business early on and DLT became a metaphor for illicit finance.

While the accessibility of blockchains by anyone with access to the internet makes them more difficult to control, licensing businesses, which provide exchange services and function as on- and off-ramps, improve the integrity of the decentralised financial systems (Hsieh et al., 2017). Therefore, the example of the Maltese VFAA is researched as an example for bringing accountability to an open and transparent technology by treating virtual assets as a new paradigm instead of a mere digitalised form of monetary value (Buttigieg et al., 2019; Fairpo, 2019; MFSA, 2020).

Methodology

To analyse the Malta case according to the new paradigm for studying virtual assets in the context of small island states, the methodology combines qualitative methods originating in sociolinguistics with quantitative tools prevalent in econometric analysis. This research follows the dominant approach used in research on AML compliance and economic security, as a mixed-method study design is the core of the Mutual Evaluation Reports (MER) conducted

by FATF and "FATF-style regional bodies" (FATF 2013;2023, p.6). Similarly, the analysis herein evaluates how the material provisions in Maltese national law and EU draft legislation compare to each other and address ML risks associated with cryptocurrencies at large.

Moreover, existing literature on small states' AML provisions that focus on cryptocurrencies make use of and reference to qualitative document analysis. In Bowen (2009), for example, an analysis of Liechtenstein's regulatory regime for cryptocurrency mirrors the approach taken in this article (Teichmann & Falker, 2020). This research enriches the state-of-the-art methodologies for AML analyses, with keyword-based text search that thematically grounds the hypothesis testing in the literature on economic security. For this reason, the research incorporates methods that are used for evaluating the compliance of corporate service providers in on- and off-shore jurisdictions comparatively (Allred et al., 2017), to acknowledge the comparative nature of this research. After all, the basis of the analysis in the following are the three most recent EU directives on AML and CTF, as a frame of reference for Malta's compliance. Based on the finding from the EU AML directives the first hypothesis was tested on the Maltese VFAA. Then the competitiveness of virtual asset regulation in Malta was tested against the MiCA proposal by the EC. All documents were examined using mixed methods: the research methodology combines quantitative text mining based on natural language processing tools in the data science programming language *R*, with code-based qualitative data analysis, guided by keyword queries grounded in the theory of virtual asset (VA) and small island state studies.

Context and objectives of the research

The existing literature describes VA regulation with a specific focus on some selected assets, such as Bitcoin or Ripple and predominantly for cases in the US (Dickinson, 2019; Hare, 2019; Hsieh et al., 2017; Marian, 2019). Particularly the lawsuit against Ripple launched by the Securities and Exchange Commission in the US (Dickinson, 2019), as well as the ban on cryptocurrency exchanges in China (Low & Ying-Chieh, 2019) have diverted the attention of scholars from legislative action in OFCs to enforcement action in large states. This led to an underrepresentation of scholarly accounts of legislative undertakings initiated by small states and territories to accommodate technological advancements of DLT in their economies. To deepen the research on small island state regulatory approaches and to respond to some of the concerns raised by key literature, a case study of Malta is undertaken. The aim is to assess small state legislation on VAs and its interplay with supranational policy agendas. A further objective is to provide insights on the validity of stances found in more recent literature, which proclaim that VAs' "enabling regulation" results in a "race to the bottom" of financial transparency (Chiu, 2021, pp. 15–17).

Even though the MiCA directive may cause desired harmonisation of regulatory approaches on DLT throughout EU member states, it is likely to adopt a VA-enabling regime that the literature considers a concern, as in the cases of Switzerland or Malta (Chiu, 2021; Marian, 2019). It follows that the findings of Moneyval (2019) give reason for continued concerns over the enforcement of financial transparency in Malta; while, on the other hand, the country's overall approach to VAs seems to have proven to be a competitive blueprint for supranational EU policy making.

Thus, this research aims to establish the justification for the DLT framework's position of Malta as "blockchain island" (Cointelegraph, 2018; Gouder & Scicluna, 2018). In this regard, counterarguments against the Maltese VA competitiveness are also considered.

Consequently, their confirmation would result in the heightened doubts over Malta's ability to enforce its own AML/CTF legislation. In response to the research gaps discussed above, the following hypotheses are tested within a mixed method research approach:

> H_1: Malta's regulatory regime for virtual financial assets is fully compliant with EU anti money laundering directives.
>
> H_2: The virtual financial asset framework is a competitive virtual asset regulation in the EU.

The next section describes the context, in which Malta implemented its DLT framework. Note that the laws in Malta where enacted in the same year that the European Parliament legislated two major AML/CTF directives. In this regard, H_2 should be interpreted as a response to the historic context of H_1. It was hypothesised that H_1 does not capture the directives building on the framework of AMLD V and AMLC. Therefore, H_2 tests Malta's position in the current debate; while H_1 sets out to ascertain how Malta got there.

Research design and data

The Malta case offers research on VA regulation the chance to connect and contrast findings over the categories of 'enabling', 'hegemonic' or 'self-regulating' approaches (Chiu, 2021) with policy choices depending on peripherality. A case study approach was chosen to capture Malta's particularity as an example of combining two extremes on the scale of VA policy making. On one hand, as an EU member state, Malta is part of a large supranational confederation which is prone to a hegemonic approach of regulating VA (Campbell-Verduyn & Goguen, 2017; Chiu, 2021). On the other hand, it is also a small island state, which enabled, attracted and regulated the VA sector (Buttigieg et al., 2019; Chiu, 2021; Marian, 2019). The sampling was theory-driven because legislation was selected for analysis (Bowen, 2009) and guided by literature at the intersection of competitiveness in small island states (Baldacchino, 2019) and the categorisation of VA regulatory regimes (Chiu, 2021; Tsukerman, 2015). Accordingly, an "embedded case study approach" (Eisenhardt, 1989, pp. 533) with multiple levels of analysis was chosen to ground the study in the paradigm of mixed methods research (Datta, 2006).

Research methods

In response to the contingent implementation and enforcement of AML/CTF procedures through the DLT framework in Malta, a critical approach to data generation and analysis was taken. Following *critical rationalism*, the problem of testing the hypothesis is solved by developing *tentative theories*, which were then subject to *error elimination* (Popper, 1973, p. 287). Thus, the QDA codings were "triangulated" (Datta, 2006, p. 35) by quantitative data (Ridder, 2017). While both used methods of socio- and computer linguistics, the quantitative methods were conducted before the results were analysed qualitatively. This research uses text mining in the statistical software *R* to retrieve the most common words in the EU AML/CTF directive and the Maltese DLT framework. The words from the different legislating bodies were then compared by their frequencies. The quantitative data was then translated into keywords. Both research paradigms (Bryman, 2006) were considered throughout the three-phased research (Santos et al., 2017). The qualitative component incorporated the keywords'

relevance to the FATF standard of an RBA towards assets used for AML/ CTF (FATF, 2019), and the word frequencies in the legislation represented quantitative elements in the research.

Based on the existing body of literature for AML evaluation, which was outlined in the beginning of this section, the methodology in this contribution specifically efforts to deductively assess the compliance of Malta against established EU AML/CTF directives. Regarding the first hypothesis, the compliance of the provisions in the VFA framework can be tested through the identification of keywords that are central to the respective EU directives, where the keyword search is the standardising element of the evaluation. Meanwhile, the second hypothesis is rather exploratory, as it draws on concepts discussed within the island studies literature instead of being positioned in the core discourse on virtual assets and AML/CTF rules. For this reason, a qualitative approach was more appropriate to describe competitiveness in the context of regulation on virtual assets. As regulation cannot be competitive if it is not compliant, the second hypothesis, logically builds on the first. Thus, a response to H1 was a necessary requirement for answering H2 sufficiently and required the methodology to connect the two aspects for positioning the research in the literature of human security. Following, the chosen methodology is apt for testing the hypothesis because of its rapport in AML studies, enabling abductive reasoning, and grounding the positivist data analysis in the theory of small state studies.

Text mining

As a preliminary step, text mining prevented the QDA to only "*lift* words and passages from available documents" (Bowen, 2009, p. 33; emphasis added) without evaluating the meaning of passages in relation to the hypotheses. The text mining package for *R* was only used to form a corpus, which was then converted into a word frequency matrix, from which, in a later step, keywords were extracted.

Keyword-based text search

The keywords, which were returned by the text mining algorithm were disaggregated to represent the process of transposing EU AML/ CTF directives into Maltese national law. Since EU policy making is based on *multi-level governance* (Stephenson, 2013), the principle of *subsidiarity* applies. This means that directives legislated by the European Parliament are not directly and literally transposed in national legislation. Instead, directives voted into force by the European Parliament provide member states with a framework within which they can adopt measures they see fit, as long as the binding policy objectives in the directives are met and their outcome is measurable. Thus, it was unlikely for the research to retrieve meaningful results by applying the same set of keywords to the EU directives and the Maltese acts. For this reason, during the second phase of data selection, two lists of keywords were created that distinguished between Maltese and EU legislation. As a result, Table 1 consists of fourteen keywords for EU directives and proposed directives, as well as 22 keywords for Maltese legislation.

Table 1. Keyword query in selected legislation.

	Keywords Maltese VFAA	Keywords EU legislation
1	virtual financial asset	enable
2	VFA	virtual
3	whitepaper	whitepaper
4	licenc/se	licenc/se
5	holder	holder
6	DLT	DLT
7	crypto	crypto
8	agen/-t/-s/-cy	agen/t/ts/cy
9	monitor	register
10	record	enforce
11	review	service provider
12	exempt	fine
13	dut -y/-ies	crime
14	responsible	framework
15	oblige	
16	audit	
17	report	

Qualitative data analysis

The last phase of the research drew from the knowledge generated by the two previous phases, but also critically examined their findings. Hence, it incorporated the keywords from phase two, which in turn built on results generated in the first phase as coding labels. Furthermore, the assumptions by which the keywords are organised to connect the two hypotheses were rephrased to form a system consisting of three nodes. The node *"*adaptive technology" covers the requirements set out by the EU. The node "subjects of regulation" marked passages in the legislation where persons or entities are brought into the scope of regulation; whereas the node "safeguards*"* organises the codes, which denote the practices that regulation requires and expects.

QDA was performed by using the *RQDA package* for the programming language *R*, which provided a graphical user interface through which the coding was performed manually on the text. After the documents were coded, the codings and their quantitative metrics were retrieved through the command line in the *R* console. The documents were decontextualised by applying "evaluative coding" (Kuckartz, 2010, p. 62). Consequently, the co-occurrences of keywords from the previous phase were evaluated with respect to their connection to one or more nodes and their relevance to the hypotheses.

Validity and reliability of the methods

Through its mixed method approach, the research repeatability is limited because the QDA and the connection of the individual phases was influenced by a subjective design. Nonetheless, the available quantitative data can be re-evaluated and used to ascertain whether the transformation of outputs from previous stages into the following phases was valid. Furthermore, whether the results could reliably measure the compliance in a concrete case remains questionable: for example, to what extent a corporate entity in Malta complies with regulation. Yet, this was not the objective of this research. Instead, it aimed to map the overall compliance of Malta given the uncertainty of an EU treaty infringement proceeding and its grey-listing by FATCA.

In sum, the research is best described as iterative, which is to be expected given its mixed method design. Furthermore, iterative research can be found in other fields dominated by quantitative methods. For example, financial mathematics use qualitative methods to model market data for credit risk prediction. Although practitioners have described this process as *tinkering* (Kalthoff & Maesse, 2012, pp. 217–225), so far it has proven to be reliable and valid for research at the intersection of social sciences, economics and law.

Sample description and retrieved data

A total number of five pieces of legislation contained in six documents were analysed (Table 2). Throughout the consultation process with stakeholders at EU-level, the MiCA directive proposal kept its structure of one document for the main body of statutes and a second for its annexes. Meanwhile, the Virtual Financial Assets Act (VFAA) provides its clauses and annexes in only one document. Of all acts that currently apply, the VFAA was the latest to come into force. It was approved by the Parliament of Malta on November 1, 2018. H_1 is tested by comparing the results from the VFAA with the three EU directives, which implement measures to prevent ML and combat TF. On the level of the EU, AMLD IV describes the rules against ML and TF. In AMLD V, these rules are extended to VAs and AMLC, increased penalties for ML and criminalised abiding money launderers. For H_2 the analysis was extended to the two documents forming the EC directive proposal for MiCA and compared to the VFAA. During the QDA, 458 codings with a total length of 450,838 characters were retrieved from the documents.

Table 2: Overview of the analysed legal documents.

AMLD IV: ”Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC [European Communities] of the European Parliament and of the Council and Commission Directive 2006/70/EC [European Communities]”
AMLD V: ”Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC [European Communities] and 2013/36/EC”
AMLC: ”Directive (EC) 2018/1673 of the European Parliament and of the Council on 23 October 2018 on combating money laundering by criminal law”
MiCA: ”[EC] Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EC) 2019/1937”, Brussels, 24.9.2020
MiCA: ”Annexes to the [EC] Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EC) 2019/1937”, Brussels, 24.9.2020

Results and discussion

According to the methods set out in the previous chapter, this section highlights the findings of the research in the context of the hypotheses by proceeding as follows. Firstly, the results are presented in respect to the method, which was used for their retrieval. For their graphical nature, the data processed through text mining gives a broad overview. Afterwards, the paper gradually introduces passages coded by the QDA through their connection to the keyword query. Second, the results are discussed in depth and with emphasis on concrete

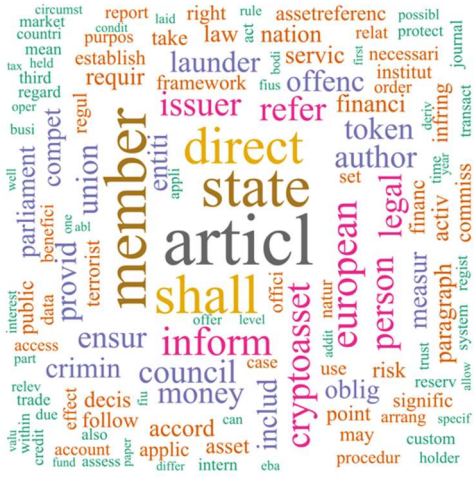
provisions made in the legislation. Later, the discussion refers to selected literature to interpret the research in the context of small state studies and VA regulation research. The paper concludes by examining the limitations of the research, and by using the interpretative conclusions provided by existing literature, which highlight areas for future study.

Content analysis of legislation by the EU and Malta

It could be ascertained through text mining that the level of governance influenced the set of words frequently used. Thus, in the EU legislation, "member" and "state" were among the most frequently used words. In contrast, words used regularly in the Maltese legislation included "person", "asset" or "financ[ial]" "servic[es]". As displayed in the word clouds (Figure 1), the two legislating bodies made different subjects central to their legislations. The EU corpora prominently features the requirements for AML/ CTF safeguards. In contrast, VA-specific words occurred in the proposal for MiCA with sufficient frequency to confirm the expected scope of the legislation. In MiCA, the term "cryptoasset" was proven to be of particular importance, because it was more frequently used than in the Maltese VFAA that addresses "virtual financial assets" exclusively. When examined more closely, it was shown that "cryptoasset" exceeds the word frequency of words emblematic for AML/ CTF legislation, such as "crim[e]", "launder", or "oblig[e]", in the EU directive corpus. This indicates that EU legislation emphasises the importance of AML/ CTF rules for VA and is evidence that VA regulation in Malta and the EU are interdependent.

Figure 1: Word clouds for Malta and EU legislation.

a) Word cloud EU



b) Word cloud VFAA Malta

Differences between the Maltese legislation and the EU directives were to be expected. Their relationship to DLT-specific vocabulary should be singled out. Malta, for example, highlights the technology with those that offer it; while the EU focuses on the applications of the technology as "cryptoassets", or "tokens". Financial use cases are still accounted for in the terminology of both legislations; but only Malta incorporates the broad concept of "asset" in its terminology of VFAs to fulfil definitional requirements set out by FATF (2019). In its effect, EU legislation may also enable a coordinated RBA; however, it leaves more legislative freedom for national policy makes. The use of "should" instead of "shall" in the EC's definition

of *crypto-assets* must be treated with caution, as it may not equally capture the specific requirements of the DLT industry, addressed in the VFAA. Instead, MiCA renders correspondence [line 822] to the definition of "virtual assets" set out in the recommendations of the FATF" desirable, rather than obligatory.

Table 3: Word frequency of *w*[1,17] in EU and Malta legislation.

	Words EU	Word Frequency EU	Words VFAA Malta	Word Frequency VFAA Malta
1	articl	4889	person	173
2	member	3945	asset	129
3	state	3843	subject	129
4	shall	3508	client	102
5	direct	3298	shall	101
6	inform	2399	act	68
7	european	2357	provid	56
8	cryptoasset	2101	regul	52
9	person	1980	servic	49
10	refer	1969	financi	48
11	issuer	1960	term	43
12	legal	1845	money	39
13	council	1825	author	38
14	author	1743	control	37
15	money	1725	licenc	36
16	ensur	1712	virtual	34
17	token	1682	held	33

While MiCA will require EU member states to submit a "list of crypto-asset services [...] that are likely to raise money-laundering concerns and that are identified as such by the FATF" to the EBA [line 826], MFSA already compiles and publishes a list of VASPs. This practice reinforces Malta's approach to negatively define VFAs and limit the scope of the VFAA. Therefore, it circumvents the necessity to define VFA as money and states that, as soon as these "assets" are based on innovative technology, they fall within the scope of the DLT framework. It is advantageous to the Maltese VA ecosystem, because defining [line 23] "assets" as movable and immovable property of any kind [line 24] safeguards Malta against ML and TF without depending on definitions of stable coins, asset backed tokens, or tokenised property in general.

If Malta accounted for the FATF recommendations through choosing *asset* as the denominating word in the definition of VFAs, why was the VA not adapted instead of VFA? It was found that Malta has a strong incentive to competitively label its framework in difference to the terms of the FATF, as the Maltese state generates revenue for issuing licences and in annual fees. The FATF definitions, do not yet convey the impression that legislation is favourable to the industry. For the businesses it wants to attract, Malta had to choose language that made being subject to its regulation appear worthwhile for corporations to incur the transaction costs of relocation. As the VFAA states, a VASP initially pays a minimum of €6,000 to obtain a licence with future annual costs likely to exceed €5,500 (lines 776 to 842 VFAA). For Malta, competitiveness was a prerogative.

Competitiveness in Malta and the EU

This section addresses the overall findings in a context with concrete passages included in the different legislations to test and substantiate the hypotheses. Smaller numbers of occurrences for "virtual" and "financial" in the combined corpora of Maltese legislation indicate that the DLT framework goes beyond the requirements for member states' legislation set by the EU AML/ CTF directives since the VFAA by itself requires "[line 339] VFAA class 4 licence holders authorised to provide any VFA service [line 467] [to] maintain accurate records and accounts [...] that they may be used as an audit trail [line 470]". In other words, it licenses VASPs and requires them to keep records to be able to track and trace funds. These lines are proof that the VFAA complies with EU AML/ CTF directives, because it equates article 47 in AMLD IV. Despite the brevity of the VFAA, it ensures [line 1154] "that providers of exchange services between virtual currencies and fiat currencies, and custodian wallet providers, are registered, [as well as that a] list of competent authorities [is] provided to the commission remains updated" [line 1162] (AMLD IV).

The VFAA's definition of VFAs is flexible to enough to "[line 56] appropriately address new risks and challenges the use of virtual currencies present from the perspective of combating money laundering [line 57]" (AMLC), because it is not limited to existing solutions, such as Ethereum and Bitcoin. In contrast, the VFAA accounts for future innovation by adapting a new tool for licensing and assuming appropriate exemptions from obligations to the MFSA. Future developments within the VA industry are the scope of the VFAA. It may exempt offerings from the obligation to submit a whitepaper to the MFSA that took place prior, shortly after, or during the implementation of the act (VFAA lines 101-11). However, the technological underpinning of whitepapers is widely perceived as adequate in academic discourse. For example, Zellweger-Gutknecht (2019, p. 86) refers to VAs as being "value data".

More broadly, the Maltese DLT framework showed elements of monetising the compliance with EU directives by implementing a middleman. The MFSA now supervises and exempts VASPs that makes regulation of VAs an iterative process, or "double movement" (Höpner & Schäfer, 2010, pp. 5–9). In the EC proposal for the MiCA directive, the centralisation of regulatory oversight entailed that the EBA receives general authority over the European licencing regime. The EBA, thus, will collect fees from and issue licences for VASPs, which is very similar to the relationship between the MFSA and VA agents. Another similarity with the VFAA arises when MiCA was analysed for occurrences of the keyword "whitepaper". The hypothesis that the EC had adopted a whitepaper regime similar to Malta's, despite the doubts over its reliability, is confirmed (Chiu, 2021).

The position and visibility of the EU as a large political actor in the international system makes it less likely to exhibit competitive behaviour in niche markets and emerging sectors. In the case of establishing a centralised regulatory regime for VAs this was confirmed. According to Baldacchino (2018), the literature on small states overstretches the argument that small jurisdictions are faced with policy risks more frequently and, therefore, excel at mitigating the risks of competitive licensing regimes for financial services. As a particularly competitive characteristic of the Maltese VFAA, the whitepaper has confirmed the relation of competitiveness and size in the realm of VA regulation. The EC's inclusion of the "[line 168] whitepaper [as] applicable to issuers of e-money tokens [line 169]" in MiCA not only confirms the whitepaper as successor to the prospectus for new assets, but also supports the claim that the VFAA is legislation driven by achieving competitiveness.

Thus, the EC implicitly acknowledges the competitiveness of the Maltese framework. First, by placing the EBA as regulatory authority at the centre of the EU framework of VA oversight it confirmed the necessity of technology informed regulation as practised in Malta. Second, the EC ensured technology adaptive regulation through the adoption of whitepapers as documents that contain "[line 186] information about the project [with] details of all natural or legal persons [, and the] design [of such] crypto-asset service [line 188]" (MiCA). While the effectiveness of the future MiCA directive can only be investigated after the legislation went into force and was transposed into national law, the VFAA already faces new regulatory challenges, such as increasingly decentralised financial services. After the VFAA's formal compliance with EU AML/CTF directives and comparative competitiveness could not be refuted, empirical research on its performance is necessary.

Table 4: Keyword frequency EU legislation.

	AMLDIV		AMLDV		AMLC		MiCA		MiCA Annexes	
1	articl	309	member	232	direct	83	cryptoasset	1281	issuer	145
2	shall	303	state	224	offenc	76	token	959	articl	144
3	member	302	shall	194	state	73	shall	831	cryptoasset	92
4	state	290	inform	191	member	71	articl	721	infring	92
5	entiti	200	articl	167	crimin	64	issuer	672	token	81
6	direct	191	legal	138	council	56	provid	587	asset	67
7	person	183	direct	134	european	55	servic	576	reserv	51
8	oblig	182	author	128	articl	54	assetreferenc	525	signific	51
9	inform	160	follow	114	launder	39	author	444	assetreferenc	43
10	european	137	european	113	activ	38	compet	384	inform	38
11	money	135	paragraph	109	money	37	asset	333	servic	38
12	risk	122	benefici	93	union	35	refer	331	holder	35
13	launder	121	entiti	93	decis	34	inform	319	refer	35
14	author	117	compet	90	framework	34	regul	309	provid	33

Conclusion

After thorough testing, neither of the two hypothesis of this paper could be rejected. While Malta adapted an RBA as recommended by the FATF (2019) and complied with EU law, elements of the VFA were also traced in the EC proposal for the MiCA directive. In this regard, further research is necessary to update the theory of Tsukerman (2015, pp. 1152–1153) on the recent developments in the regulatory landscape, by considering that VA regulation today must account for the issuance of VAs by corporate entities and applications built on top of existing blockchains, such as yield protocols or stablecoins.

Through the contextualisation of the research in VA with the materialities of a post-pandemic small island state, the analysis has benefitted from a concrete example of how a small island state can adopt a policy of flexible specialisation. Furthermore, the research contributed to the methodological standardisation of both small states and island studies, as well as virtual asset studies. Thus, he research fields' methodologically heterogeneous and diverse bodies of literature were subjected respectively to structured mixed method research.

Research at the intersection of socioeconomics and law demands solutions that regulation technology provides, but these novel techniques have yet to be implemented. The case of VA regulation in Malta, however, had to be addressed by an algorithmic analysis to account for the complexity of the topic and its competitive legislation. Indeed, both Malta and the EU are

prudently enthusiastic about the emergence of a new financial sector. Their provision of FATF standard implementing laws in combination with competitive enabling statutes in both legislations prepares these jurisdictions for scenarios of risk and uncertainty. Although at the time of the analysis the MiCA directive was still in its final stages of approval and not officially adopted, on 31st May 2023 the directive was finally voted to come into force on 31st December 2024 (European Parliament, 2023). The final version confirms the findings of this work, having regard to the oversight of the EBA over the licencing and regulation of crypto-asset service providers and the installment of national competent authorities for the execution of regulatory actions (European Parliament, 2023, MiCA Art. 93, 94, pp.144). Therefore, this research illustrates the significant impact of Maltese virtual asset regulation on the conceptualisation of crypto-assets on an EU-level and the influence of Maltese regulatory approaches for VAs on the MiCA directive. While it appears that the EU took a comparatively cautious regulatory stance by adding contingency clauses, the legislative foundation for virtual assets regulation, particularly the conceptualisation of competent authorities' oversight of crypto-asset service providers, is found in Malta.

Malta was shown to formally comply with EU AML/CTF directives but implemented a more flexible legislation that can be marketed as "competitive". Malta is a small island state, which relies on attracting FDI to sustain its national economic viability. Although Malta's legal flexibility might be denounced as opaque in public and academic discourse, its VFA framework licenses and regulates the VA reliably. Instead of blaming Malta for attracting financial services to regulate them in return for licensing fees, the small island state should be regarded as serving as a precedent for convincing an industry, which previously systematically avoided regulation, to voluntarily subject itself to monitoring. Most importantly, Malta's success led the EC to envision the adaption of the Maltese scheme on an EU level and made it a role model for competitive VA regulation.

As a result, the research attests to sufficient national security measures in place that are up to the standards enacted on EU-level. Although no quantitative risk analysis (Levchenko et al., 2018) for Malta's economic security measures was carried out, Jakobi (2018) emphasises the insufficiencies of national and supranational security measures targeted at disrupting illicit money flows. Hence, this research highlighted the competitiveness of the Maltese VFAA in terms of AML and CTF safeguards and legitimises the embedded security measures outlined in the MiCA and AMLD directives of the EU. A holistic definition could benefit this discourse on the securitisation of novel money flows under regulatory frameworks enacted by small competitive jurisdictions. More research is called for in this burgeoning yet exciting field.

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