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ARTICLE

# Considerations on the Construction of Future Financial Regulations in the Field of Initial Coin Offering

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**Abstract**
Legal issues of ICOs are significant in the contemporary financial world because this method of capital formation is becoming widespread. In spite of the significance of ICOs, there are no financial regulations in this field in the most important legal systems. Therefore, research concerning future legal provisions in the area of ICOs is needed. This paper concerns issues related to the scope and structure of future financial regulations applicable to ICOs. The author focuses on principles on which legal provisions in the field of ICOs should be based. National, European and international matters are discussed separately in this work. Matters regarding a future international organisation competent in issues of crypto-assets are elaborated. Furthermore, the author proposes to create a model convention on cryptocurrencies and bilateral agreements on the exchange of information in crypto-asset matters. Disclosure obligations, anti-manipulation provisions and anti-money laundering principles are also set out. Moreover, the author discusses issues regarding audit requirements, special methods of registration and innovative payment rules for crypto-asset purposes. Finally, recommendations concerning ICOs are made separately for national, European and international purposes. The author believes that the conclusions in this paper can be useful not only for legislators but also for international actors, European institutions and legal researchers.

**Keywords** Initial Coin Offering · Cryptocurrencies · New financial legal framework

**JEL Classification** K22 · K24 · K33

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## 1 Introduction

Initial Coin Offering (ICO) is thought to be the reason for significant future changes in financial and capital systems.[1] Furthermore, it is an important method of fundraising[2] which is used worldwide by new technological start-ups.[3] Nonetheless, there are no special financial regulations concerning such matters in the most significant legal systems of the world.[4]

A future legal framework, which should be tailored for ICO purposes, will probably lead to broader acceptance of this method of building capital.[5] This revolutionary tool of capital formation, which ICO is,[6] should be regulated in new legal acts because current financial regulations seem to be incompatible with the issues discussed.[7]

Because of the fact that ICOs are in principle cross-border, internationally standardised legal solutions concerning issues elaborated in this paper should be developed.[8] With such standardisation, financial regulations in the area of ICOs will become extremely effective. However, there is no worldwide consensus concerning regulations on ICOs.[9]

There are two possibilities which can lead to the entry into force of standardised legal principles concerning ICO matters. The first is related to the activities of the international community. The second can be achieved by developing a legal theory of cryptocurrencies.[10]

In view of the fact that none of the existing significant international organisations is currently involved in developing legal solutions in the area of cryptocurrencies,[11] model regulations in this field can be created only through legal research, legislative process and European legal integration. It is important to research issues regarding ICOs because the lack of well-designed regulations leads to legal uncertainty.[12] This legal uncertainty could be limited by lawmakers, regulators and international actors.[13]

1 Dell'Erba (2018), p 1107; Rohr and Wright (2019), p 464.

2 Preston (2017–2018), p 321; Dell'Erba (2018), p 1134; Briggs (2018), p 426.

3 Trotz (2019), p 429; Meadows (2018), p 279; Debler (2018), p 253; Fitts (2019), p 927.

4 See Chudinovskikh and Sevryugin (2019), pp 68, 77, 78; Gamble (2017), pp 348, 360, 361, Cvetkova (2018), pp 145–152.

5 Tjio and Hu (2020); Briggs (2018), pp 426–427; Fong (2018), p 76.

6 Dell'Erba (2020), p 180.

7 Yano et al. (2019), p 110; Fitts (2019), p 930; Briggs (2018), p 426; Dell'Erba (2018), p 1109.

8 Briggs (2018), p 448. See also Adhami and Giudici (2019), p 68; Debler (2018), p 253; Block et al. (2020), p 2; Trotz (2019), p 455; Briggs (2018), p 448; Yano et al. (2019), p 121; Chohan (2017).

9 Briggs (2018), p 448; Yano et al. (2019), p 109; Tiwari et al. (2020), p 435; Dell'Erba (2018), p 1128.

10 Cvetkova (2018), p 151. See also Dell'Erba (2018), p 1132.

11 Basaran (2019), p 773.

12 Brake (2020), p 195; Adhami and Giudici (2019), p 70. See also Hönig (2018), p 24; Link and Kunz (2019), p 18; Trotz (2019), p 429; Dell'Erba (2019), p 3.

13 Dell'Erba (2018), p 1134; Miller et al. (2018), p 83; Dell'Erba (2020), p 227.

In view of the above, a theoretical model of regulations in the area of cryptocurrencies should be designed. The author believes that this article can lead to the development of a legal theory of ICOs.

## 2 Theoretical Notion of Crypto-assets

### 2.1 General Remarks

Crypto-assets are virtual units of value or units of account,[14] which are issued in principle through Initial Coin Offering.[15] They are issued using blockchain technology,[16] which enables disintermediate payments,[17] capital investment[18] and the purchase of digital services.[19]

Cryptocurrencies are varied because of the fact that they involve a wide range of applicability,[20] i.e. there are payment tokens,[21] equity tokens,[22] debt tokens[23] and utility tokens.[24] These types of cryptocurrencies should be discussed separately because different regulations should be created for each of these groups of crypto-assets.

### 2.2 Payment Tokens

Payment tokens[25] are also known as coins.[26] Such crypto-assets play a similar role as money.[27] Hence, they are a medium of exchange[28] and a store of value.[29]

[14] Block et al. (2020), p 2; Maume and Fromberger (2019), p 558. See also Alkadri (2018–2019), p 77; Shulman (2020), p 58; Bratspies (2018), p 7; Howden (2015), p 763.

[15] Brake (2020), pp 171, 173; Briggs (2018), p 424; Wilson (2019), p 368.

[16] Essaghoolian (2019), p 299; Lockaby (2018), p 339; Crane (2018), pp 799-800.

[17] Howell et al. (2018–2019), p 2.

[18] See Marian (2019), p 538; O'Connor (2019), pp 539, 543; Howden (2015), p 765.

[19] Howell et al. (2018–2019), pp 3–4; Clements (2018), p 77; Essaghoolian (2019), p 326; Sherman (2018), p 22.

[20] Vrazel (2019), pp 529, 534; Mokhtarian and Lindgren (2018), pp 118, 119; Alvarez (2018), p 36; Shulman (2020), pp 54, 69; Marian (2019), p 538; Moran (2018), pp 238–243.

[21] An et al. (2018), p 4; Howell et al. (2018–2019), p 1; Marian (2019), p 538.

[22] An et al. (2018), p 4; Weber and Baisch (2019), p 15; Gurrea-Martinez and Remolina (2019), pp 6, 27; Brake (2020), p 172; Marian (2019), p 538.

[23] Weber and Baisch (2019), p 15; Gurrea-Martinez and Remolina (2019), pp 6, 27.

[24] Yano et al. (2019), p 116; Howell et al. (2018–2019), p 1; Block et al. (2020), p 2; Brake (2020), p 172; Weber and Baisch (2019), p 14; Higgins (2018), p 230; Marian (2019), p 538.

[25] Yano et al. (2019), p 116; Howell et al. (2018–2019), p 1.

[26] Vrazel (2019), p 534; Alvarez (2018), p 36; Shulman (2020), pp 54, 69.

[27] Davidson (2019), p 799; Cvetkova (2018), pp 131, 134; Howden (2015), p 762; Hughes and Middlebrook (2015), p 523; Shulman (2020), p 79.

[28] Clements (2018), p 83; Alkadri (2018–2019), p 77; Rucker (2020), p 388; Hughes and Middlebrook (2015), p 538; Marian (2015–2016), p 55, Cvetkova (2018), p 150; Shulman (2020), p 79.

[29] Part 1, Section 5 of the Australian Anti-Money Laundering and Counter-Terrorism Financing Act 2006. https://www.legislation.gov.au/Details/C2019C00011. Accessed 14 July 2021. See also Basaran (2019), p 772.

Payment tokens are often described as a decentralised surrogate for money[30] because they are an unofficial medium of exchange.[31]

Nevertheless, they are not legal tender[32] (except in Japan[33]). In view of the above, it should be stated that payment tokens are not money but have only significant features of money.[34]

## 2.3 Security Tokens

### 2.3.1 General Remarks

Security tokens[35] are also called investment tokens.[36] Although they are varied,[37] they can be divided into two main groups:[38] debt tokens[39] and equity tokens.[40] Both are issued in exchange for fiat money or other cryptocurrencies.[41] Equity tokens and debt tokens are discussed separately below.

### 2.3.2 Equity Tokens

Equity tokens are crypto-assets which are purchased to obtain capital flows or to gain profits related to their value changes.[42] It means that they certainly have a financial nature.[43]

Equity tokens are similar to shares.[44] In principle, they enable entitlement to dividends,[45] profits,[46] royalties[47] and voting rights.[48] Hence, they entitle their

30 Davidson (2019), p 799; Cvetkova (2018), pp 131, 134; Howden (2015), p 762; Hughes and Middlebrook (2015), p 523.

31 Clements (2018), p 83; Alkadri (2018–2019), p 77; Rucker (2020), p 388; Hughes and Middlebrook (2015), p 538; Marian (2015–2016), p 55; Cvetkova (2018), p 150; Shulman (2020), p 79.

32 Morton (2020), p 132; Gamble (2017), pp 350–351; Alvarez (2018), pp 39–40.

33 Basaran (2019), p 765.

34 Davidson (2019), p 799; Cvetkova (2018), pp 131, 134; Howden (2015), p 762; Hughes and Middlebrook (2015), p 523.

35 Block et al. (2020), p 2; Higgins (2018), p 230.

36 See van Beusekom (2019), p 3.

37 See Vrazel (2019), pp 535, 539, 542, 544; Hughes and Middlebrook (2015), p 528; Trotz (2019), p 434; Maume and Fromberger (2019), pp 558, 559, 567, 580; Crosser (2018), p 391; Dell'Erba (2020), p 188.

38 Gurrea-Martinez and Remolina (2019), p 6.

39 van Beusekom (2019), pp 3, 11; Gurrea-Martinez and Remolina (2019), pp 6, 27; Tjio and Hu (2020).

40 van Beusekom (2019), p 3; Gurrea-Martinez and Remolina (2019), p 6.

41 van Beusekom (2019), p 14; Brake (2020), p 173.

42 Crosser (2018), p 391. See also Bratspies (2018), pp 16-18; Debler (2018), pp 251–252; Maume and Fromberger (2019), p 570.

43 See An et al. (2018), p 12; Liu and Wang (2019), p 126; Brake (2020), p 173.

44 Vrazel (2019), p 535; Shulman (2020), pp 56, 57, 63, 69; Moran (2018), p 215.

45 An et al. (2018), p 12.

46 Liu and Wang (2019), p 126; Brake (2020), p 173.

47 Breier et al. (2018), p 1159.

48 Adhami and Giudici (2019), p 66; Liu and Wang (2019), p 126; An et al. (2018), p 12.

purchasers not only to typical rights of shareholders but also to rights related to e.g. royalties.[49]

It is extremely important to distinguish between pure utility tokens as discussed below and equity tokens, which can have additional utilities.[50] Most of all, equity tokens have a financial nature, contrary to pure utility tokens.[51]

### 2.3.3 Debt Tokens

The main feature of debt tokens is that they do not give entitlement to any profits or rights, but do only involve the obligation for the issuer to pay back debt.[52]

Consequently, these tokens are crypto-assets which are similar to debt securities.[53]

## 2.4 Utility Tokens

Utility tokens are issued to build the loyalty of purchasers of digital services.[54] The majority of utility tokens should not be treated like securities, but there are significant exemptions,[55] which are related to the financial nature of such assets.[56] Nonetheless, most utility tokens have the nature of non-financial gift cards.[57]

Some scholars state that utility tokens are similar to payment tokens but that they can be used only to buy specific services provided by their issuers.[58] However, it should be added that utility tokens have more applications than typical payment tokens.[59] Therefore, utility tokens can be understood as payment tokens created for special purposes.

Some legal practitioners believe that utility tokens cannot have features of traditional financial instruments.[60] However, the majority of these assets have such features[61] because issuers of utility tokens offer access to their products in exchange for capital formation.[62] Therefore, it may be stated that it is difficult to create pure utility tokens.

[49] See Breier et al. (2018), p 1159.

[50] See Lausen (2019), p 3.

[51] See Clements (2018), p 83; Alkadri (2018–2019), p 77; Rucker (2020), p 388; Hughes and Middlebrook (2015), p 538.

[52] See Maume and Fromberger (2019), p 570; van Beusekom (2019), p 11; Gurrea-Martinez and Remolina (2019), pp 6, 27; Tjio and Hu (2020).

[53] See Maume and Fromberger (2019), p 570; van Beusekom (2019), p 11; Gurrea-Martinez and Remolina (2019), pp 6, 27; Tjio and Hu (2020).

[54] Howell et al. (2018–2019), pp 3–4.

[55] Lausen (2019), p 13; Essaghoolian (2019), pp 297–298.

[56] See Lausen (2019), p 13; Mokhtarian and Lindgren (2018), p 129.

[57] Crosser (2018), p 420.

[58] Clements (2018), p 77.

[59] Preston (2017–2018), p 323.

[60] Cvetkova (2018), p 151.

[61] Debler (2018), p 258. See also Maume and Fromberger (2019), pp 560, 580; Crosser (2018), p 407; Rohr and Wright (2019), p 468.

[62] Varmaz and Varmaz (2018), p 133; Dell'Erba (2020), p 180.

# 3 Definition of Crypto-Asset According to the Proposal for a MiCA Regulation

## 3.1 General Remarks

The European draft definition of a crypto-asset, which is contained in the proposal for a MiCA Regulation, seems standard as it is based on the notion of 'digital representation of value or right'.[63] It is easy to see that this explanation of the notion is similar to the theoretical definitions elaborated above.

Furthermore, it should also be noted that the technological aspect of the European definition of cryptocurrencies is constructed correctly. It stems from the fact that crypto-assets, within the meaning of the proposal for a MiCA Regulation, should be stored or transferred by using cryptographic technology, which is defined in an extremely wide and technologically neutral way based on similarity to DLT technology.[64] Therefore, it seems difficult to avoid future applicability of the MiCA Regulation.

## 3.2 Main Groups of Crypto-Assets According to the Proposal for a MiCA Regulation

There are three main groups of crypto-assets in the proposal for a MiCA Regulation,[65] namely:

a. 'asset-referenced tokens';[66]
b. 'electronic money tokens';[67]
c. 'utility tokens'.[68]

It should also be noted that there are financial tokens which are beyond the scope of MiCA.[69] Traditional European financial regulations apply to such assets.[70]

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[63] Art. 3(1)(2) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[64] Ibid.

[65] See art. 3(1)(3)-(5) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[66] Art. 3(1)(3) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[67] Art. 3(1)(4) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[68] Art. 3(1)(5) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[69] Noble (2020), pp 14-15; Zetzsche et al. (2020), p 21.

[70] Ferrari (2020), p 340. See also Kapsis (2020), p 19; Zetzsche et al. (2020), p 21.

Therefore, even if the MiCA Regulation enters into force, there may be tokens which would not be explicitly regulated in any European regulation.[71] Hence, MiCA tokens and non-MiCA crypto-assets should be distinguished for theoretical and practical purposes.

Because of the fact that only certain crypto-assets would fall within the scope of the proposal for a MiCA Regulation, the creation of uniform European regulation for crypto-asset purposes should be considered.[72]

Although the latter solution seems justified and correct, it may turn out to be extremely difficult. This is due to the variety of crypto-assets.[73] However, it will probably be necessary to create general regulation in the field of crypto-assets in the next phase of harmonisation of these matters.

In the current legal and factual situation in the European Union, two groups of crypto-assets should be discussed separately. The first concerns cryptocurrencies which fall within the scope of the proposal for a MiCA Regulation. The second consists of tokens to which traditional European financial regulations apply.

### 3.3 Tokens Beyond the Scope of MiCA

It should be repeated that most financial tokens do not fall within the scope of the proposal for a MiCA Regulation. In principle, such tokens are financial crypto-assets, which meet transferability criteria defined in general financial European regulations.[74] Hence, the MiCA Regulation would not be applied to crypto-assets that are transferable securities because issues relating to such assets are regulated in other European normative acts.[75]

The above-mentioned legal solution related to financial transferable crypto-assets is similar to a 'wait and see' approach. Such a legal solution will be justified until the entry into force of a general European legal act in the field of crypto-assets which would apply to both financial and non-financial tokens.

The main problem related to financial crypto-assets is that the transferability of such assets should be tested in a precise manner. Theoretically, the features of financial crypto-assets are similar to those of 'analogous' financial instruments.[76]

Moreover, special regulations designed for financial crypto-asset purposes could turn out to be discriminative or favourable. This means that such legal provisions would be incompatible with the European legal system.

[71] Ferrari (2020), pp 340-341.

[72] See Mathis (2020), p 11.

[73] See Vrazel (2019), pp 535, 539, 542, 544; Hughes and Middlebrook (2015), p 528; Trotz (2019), p 434; Maume and Fromberger (2019), pp 558, 559, 567, 580; Crosser (2018), p 391; Dell'Erba (2020), p 188.

[74] Ferrari (2020), pp 330-332, 335.

[75] See Zetzsche et al. (2020), p 21.

[76] See Ferrari (2020), pp 330-332, 335.

Furthermore, there is the risk of legal competition between Member States[77] because national regulators and legislators are in principle free to create crypto-asset legal provisions. Therefore, such provisions can differ between Member States.[78]

## 3.4 Tokens Within the Scope of MiCA

### 3.4.1 Asset-referenced Tokens

'Asset-referenced tokens' are asset-backed tokens,[79] which seem to be crypto derivatives. The value of such instruments should be based on the value of:

a. several fiat currencies; or
b. at least one other crypto-asset; or
c. at least one commodity.[80]

In view of the above, asset-referenced tokens are linked with various groups of assets, i.e. the following crypto-derivatives should be distinguished:

a. currency crypto derivatives;
b. tokenised crypto derivatives; and
c. commodity crypto derivatives.

### 3.4.2 E-money Tokens

E-money MiCA tokens can be defined as a stable medium of exchange based on fiat currencies.[81] This definition seems extremely narrow because these tokens are understood in a wider sense by legal theoreticians.[82]

E-money tokens, which are proposed to be regulated in MiCA, would have to be authorised by a competent authority.[83] Furthermore, they should be issued only by an 'electronic money institution' or a 'credit institution'.[84]

The above definition has been constructed for the applicability of the MiCA Regulation. Coins based on fiat currencies should be regulated in European legal acts because they can influence currency stability and are substitutes of fiat currencies.

77 Ibid., p 341.

78 Mathis (2020), pp 9-10.

79 See art. 3(1)(3) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

80 Ibid.

81 See art. 3(1)(4) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

82 See Clements (2018), p 83; Alkadri (2018-2019), p 77; Rucker (2020), p 388; Hughes and Middlebrook (2015), p 538; Marian (2015-2016), p 55; Cvetkova (2018), p 150; Shulman (2020), p 79.

83 Art. 43(1)(a) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

84 Ibid.

Still, it would also be reasonable to regulate in European legal acts coins which are not based on fiat currencies. However, this will probably be done in a future phase of harmonisation of crypto-asset issues.

### 3.4.3 Utility Tokens

According to the proposal for a MiCA Regulation, a utility token is a crypto-asset which can be used only to buy particular goods or services.[85] Such a token should be accepted only by its issuer.[86]

It is important to state that this definition is completely compatible with the above-mentioned notion of utility tokens constructed by legal theoreticians.[87] Therefore, this issue need not to be elaborated separately or in detail in this subsection.[88]

### 3.4.4 Significant Tokens

According to the proposal for a MiCA Regulation, e-money tokens and asset-referenced tokens can be significant within the meaning of the discussed draft legal act.[89]

The notion of significance is based on a number of criteria such as:

a. the number of customers to whom crypto-assets will be offered;
b. the value of the crypto-assets issued;
c. the number of transactions related to those crypto-assets;
d. the size of the issuer's reserve of assets;
e. the cross-border nature of the issuer's activity; and
f. the connection between the significant crypto-assets and the financial market.[90]

Special regulations in the proposal for a MiCA would apply to significant asset-referenced tokens and e-money tokens.[91] It is a good solution because the issuance of such assets should be related to particular obligations and principles as these instruments can play an important role in the European crypto market.

[85] Art. 3(1)(5) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[86] Ibid.

[87] See Howell et al. (2018-2019), pp 3-4; Crosser (2018), p 420.

[88] See subsection 2.4 of this article.

[89] Arts. 39 and 50 of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[90] Ibid.

[91] Arts. 41 and 52 of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

## 4 Notion of Initial Coin Offering

### 4.1 General Remarks

Initial Coin Offering is alternatively called Token Generating Event,[92] Initial Crypto-asset Offering,[93] Security Token Offering,[94] Initial Issuance of Tokens[95] and Initial Membership Offering.[96] Each of these names is justified, but using the most common notion, namely Initial Coin Offering (ICO), is preferable and clear.

There is no common definition of Initial Coin Offering.[97] Nonetheless, ICO is undoubtedly an alternative method of capital formation[98] and is regarded as a modern and innovative tool[99] used for capital formation purposes.[100]

Initial Coin Offering is a process designed for issuing new crypto-assets.[101] The mechanism is defined as the selling of digital assets to the public in exchange for money or other cryptocurrencies.[102] This process is of a digital,[103] virtual[104] and online nature.[105] It should also be noted that ICO is more than only a fundraising method.[106] In particular, ICO can be used to create new digital assets[107] which have additional utilities.[108] Hence, ICOs should be regulated separately in new legal acts.

Through this method of capital formation, crypto-assets are sold to a wide range of investors.[109] Hence, ICO is similar to IPO which is organised for issuing traditional financial instruments.[110] Some scholars even claim that each ICO is an unregulated IPO.[111] However, this is not a correct statement because there are many differences between ICOs and IPOs.[112] Therefore, a distinction should be made between these two financial processes.

[92] Arnold (2019), p 30; Amsden and Schweizer (2018), p 5; Danatzis (2019), p 379.
[93] Amsden and Schweizer (2018), p 5.
[94] Yano et al. (2019), p 108; Adhami and Giudici (2019), p 61; Dell'Erba (2020), p 188.
[95] Crosser (2018), p 395.
[96] Dell'Erba (2020), pp 197, 199.
[97] Lebersorger (2018), p 34; Dell'Erba (2018), p 1109.
[98] Miller et al. (2018), p 83; Dell'Erba (2018), p 1109; Briggs (2018), p 426.
[99] Briggs (2018), p 426.
[100] Ibid.; Fitts (2019), p 927.
[101] Meadows (2018), p 281; Dell'Erba (2020), p 194.
[102] Brake (2020), pp 171, 173; Briggs (2018), p 424; Wilson (2019), p 368.
[103] Hönig (2018), p 7.
[104] Fitts (2019), p 927.
[105] Crosser (2018), p 390.
[106] Preston (2017-2018), p 321.
[107] Meadows (2018), p 281; Dell'Erba (2020), p 194.
[108] See Lausen (2019), p 3.
[109] Wilson (2019), p 368.
[110] Brake (2020), p 171; Iurina (2017), p 15; Briggs (2018), p 425.
[111] Fitts (2019), p 927; Trotz (2019), p 429; Briggs (2018), p 424; Hönig (2018), p 7.
[112] Adhami and Giudici (2019), pp 72-73. See also Yano et al. (2019), p 120; Dell'Erba (2018), pp 1118-1119.

ICOs are used especially to finance new projects, ideas and start-ups.[113] However, well-established companies[114] also organise ICOs to avoid regulations concerning IPOs.[115] Therefore, it should be considered whether a new legal framework in the area of crypto-assets should be designed in such a way as to make it difficult or even impossible for traditional companies to organise ICOs.

### 4.2 Phases of Initial Coin Offering

ICOs are divided in phases.[116] According to most scholars, there are three main phases of ICO: the pre-ICO phase, the real ICO phase and the post-ICO phase.[117] Some researchers distinguish analogous phases: the 'white paper' phase, the primary market phase and the secondary market phase.[118] Properly constructed new legal regulations in the field of ICOs should be based on this division

In the pre-ICO phase, issuers create ideas and plans related to tokens.[119] During this phase, tokens are designed[120] and a white paper is prepared.[121] In this phase, the white paper should be audited[122] and the credibility of the issuer should be checked by the regulator.[123]

In the primary market phase, crypto-assets are issued and sold to the public.[124] This phase is essential for the success of the Initial Coin Offering. Tokens are sold in exchange for fiat currencies or crypto-assets.[125]

The post-ICO phase is related to the secondary market.[126] This phase is extremely important for the stability of the crypto-asset market. New financial regulations concerning the post-ICO phase should be focused on the functioning of crypto-exchanges[127] and the fulfilment of disclosure and reporting obligations by issuers.[128]

[113] Miller et al. (2018), p 85; Howell et al. (2018-2019), p 1; Varmaz and Varmaz (2018), p 130; Hönig (2018), p 24; Trotz (2019), p 429; Meadows (2018), p 279; Moran (2018), p 214.

[114] Howell et al. (2018-2019), p 1; Moran (2018), p 214.

[115] See Higgins (2018), p 221; Essaghoolian (2019), p 296; Moran (2018), p 214; Tjio and Hu (2020).

[116] See Steverding and Zureck (2020), p 19; Adhami and Giudici (2019), p 63.

[117] Ibid.

[118] Varmaz and Varmaz (2018), p 132.

[119] Steverding and Zureck (2020), p 19.

[120] Ibid., p 20.

[121] Gurrea-Martinez and Remolina (2019), p 9.

[122] Tiwari et al. (2020), p 435; Gurrea-Martinez and Remolina (2019), p 14.

[123] See Maume and Fromberger (2019), pp 567-568.

[124] Wilson (2019), p 368; Briggs (2018), p 424.

[125] van Beusekom (2019), p 14; Brake (2020), p 173.

[126] Steverding and Zureck (2020), p 27.

[127] See Dell'Erba (2020), p 213; Trotz (2019), p 446; Steverding and Zureck (2020), p 27.

[128] See Yano et al. (2019), p 109; Tiwari et al. (2020), p 438; Adhami and Giudici (2019), p 70; Howell et al. (2018-2019), p 14; MacNiven (2018-2019), p 7; Fong (2018), p 75; Preston (2017-2018), p 330; O'Connor (2019), p 564.

### 4.3 Smart Contracts

Agreements concerning ICOs are often reached by using digital tools called smart contracts, which are programmable digital codes.[129] It is obvious that traditional ways of entering into contracts are not used in the case of completely digital assets.

In general, smart contracts are used to connect two persons (in the case of ICOs: issuer and investor) in order to achieve an agreement[130] which can be automatically executed.[131] However, this tool has many additional utilities. For instance, it makes it possible to programme transactions[132] and their rules.[133] Furthermore, smart contracts can be used to design tokens[134] and generate crypto-assets.[135] They can also be used as tools enabling investors to vote.[136]

Because of the fact that smart contracts are pure IT tools, replacement of classical agreements by digital codes is thought to be extremely difficult.[137] However, it should be regulated that entering into a smart contract is legally binding and has the same effect as concluding a traditional agreement.[138] For instance, smart contracts are not regarded as legally binding agreements in Germany.[139] In that country, investors who did not sign a traditional agreement in writing cannot be protected by German general and traditional legal regulations.[140] Hence, issues regarding smart contracts should be regulated in new financial regulations so as to ensure protection of investors.

## 5 Current Legal Framework

### 5.1 General Remarks

There are a number of legal approaches to the discussed issues in contemporary legal systems.[141] For instance, ICOs are banned in China and South Korea.[142] In

[129] Olivier and Jaccard (2017), p 3; Lausen (2019), p 3; Varmaz and Varmaz (2018), p 3; Meadows (2018), p 281; Knecht (2017-2018), p 8.
[130] Olivier and Jaccard (2017), p 4; Lausen (2019), p 3.
[131] See Olivier and Jaccard (2017), p 3; Crosser (2018), p 386.
[132] Lausen (2019), p 3.
[133] Knecht (2017-2018), p 8.
[134] Rohr and Wright (2019), p 474; Amsden and Schweizer (2018), p 8; Marian (2015-2016), p 55.
[135] Knecht (2017-2018), p 8; Amsden and Schweizer (2018), p 8; Marian (2015-2016), p 55.
[136] Rohr and Wright (2019), p 476.
[137] Walker (2019), p 2.
[138] Ibid., pp 1-2. See also Adhami and Giudici (2019), p 61.
[139] Varmaz and Varmaz (2018), p 135.
[140] Ibid.
[141] Chudinovskikh and Sevryugin (2019), p 64; Marian (2019), p 564; Basaran (2019), p 766.
[142] Shulman (2020), p 75; Vrazel (2019), p 530; Mokhtarian and Lindgren (2018), p 151; Moran (2018), pp 249-250.

most countries, traditional financial [143]and civil[144] regulations are applicable to issues regarding cryptocurrencies.[145] Examples of such countries are the USA, Australia and the UK.[146] There are also countries with special regulations for crypto-assets,[147] e.g. France,[148] Gibraltar[149] and Malta.[150] Special Maltese and French regulations apply for instance to ICO issues.[151]

### 5.2 Applicability of Traditional Financial Regulations

In some countries, traditional financial regulations (especially regulations concerning IPOs) are applicable to ICOs.[152] This stems from the assumption that some tokens have most of the features of traditional financial instruments,[153] which is related to the fact that ICOs are based on IPOs.[154] However, traditional regulations are ineffective in the case of such matters[155] because the differences between traditional financial instruments and digital assets are significant.[156] Therefore, it is high time to regulate ICO issues separately.

[143] Gurrea-Martinez and Remolina (2019), p 31; Liu and Wang (2019), p 127; Wilson (2019), p 367; Briggs (2018), p 439.

[144] van Beusekom (2019), p 2.

[145] Gurrea-Martinez and Remolina (2019), p 31; Liu and Wang (2019), p 127; Wilson (2019), p 367; Briggs (2018), p 439; van Beusekom (2019), p 2.

[146] See the introduction to the Australian ASIC's information sheet (INFO 225) on initial coin offerings and crypto-assets. https://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings-and-crypto-assets/#part-a. Accessed 14 July 2021. See also O'Connor (2019), p 568.

[147] Stacher (2018), pp 31-34; Weber and Baisch (2019), p 18; Arnold (2019), p 63; Tiwari et al. (2020), p 435; Walker (2019), pp 6-7.

[148] Arts. L552-1−L552-7 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[149] Stacher (2018), pp 31-34; Weber and Baisch (2019), p 18; Arnold (2019), p 63; Kaal (2018), p 53; Marian (2019), p 552.

[150] Tiwari et al. (2020), p 435; Walker (2019), pp 6-7; Marian (2019), p 551.

[151] Arts. 3-12 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021. See also Art. L552-3 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[152] Gurrea-Martinez and Remolina (2019), p 31; Liu and Wang (2019), p 127; Wilson (2019), p 367; Briggs (2018), p 439; Lebersorger (2018), p 29; Kaal (2018), pp 47-48.

[153] Danatzis (2019), p 20.

[154] Vrazel (2019), pp 546, 550. See also Fitts (2019), p 927; Trotz (2019), p 429; Briggs (2018), p 424; Hönig (2018), p 7.

[155] Gurrea-Martinez and Remolina (2019), p 31; Yano et al. (2019), p 110; Briggs (2018), p 439; Hönig (2018), p 3.

[156] Tjio and Hu (2020). See also Adhami and Giudici (2019), pp 72-73; Yano et al. (2019), p 120; Dell'Erba (2018), pp 1118-1119.

### 5.3 Applicability of General Contract Law

There are countries where general contract law applies to ICOs.[157] This is justified until smart contracts are treated as typical 'analogous' agreements (viz. a contract between issuer and investor is understood as a contract of sale[158] or a barter contract).[159] A contract of sale enters into force when cryptocurrencies are issued in exchange for fiat currencies,[160] whereas a barter contract is signed if crypto-assets are issued in exchange for other tokens.[161]

The application of general contract law to matters relating to crypto-assets is undoubtedly justified in the case of non-security tokens. Furthermore, general contract law can be applied to issues that are not regulated in traditional financial regulations.

### 5.4 Applicability of General Consumer Law

In some countries, regulations in the area of consumer law are applicable to issues regarding crypto-asset manipulation.[162] Such legal provisions apply to both security and non-security tokens.[163]

The discussed regulations should definitely be applicable to utility tokens without any exemptions. However, in the case of security tokens, legal provisions in the field of consumer law apply only to issues not regulated under general financial law until the moment special regulations on financial tokens enter into force.

In the case of European law, consumer protection regulations enacted under the general Market Abuse Regulation (MAR II)[164] are applicable to all kinds of financial tokens.[165] This is in line with the European 'Digital Finance Strategy'.[166] However, it would be more accurate to separately regulate the protection of European investors who purchase transferable tokens through ICOs.

157 van Beusekom (2019), p 12; Gurrea-Martinez and Remolina (2019), pp 17, 19.

158 van Beusekom (2019), p 12; Lebersorger (2018), p 29.

159 van Beusekom (2019), p 12.

160 van Beusekom (2019), p 12; Lebersorger (2018), p 29.

161 van Beusekom (2019), p 12.

162 See the introduction to the Australian ASIC's information sheet (INFO 225) on initial coin offerings and crypto-assets. https://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings-and-crypto-assets/#part-a. Accessed 14 July 2021. See also Mathis (2020), p 10; Noble (2020), p 12; Zetzsche et al. (2020), pp 3-4.

163 Part B of the Australian ASIC's information sheet (INFO 225) on initial coin offerings and crypto-assets. https://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings-and-crypto-assets/#part-a. Accessed 14 July 2021. See also Mathis (2020), p 10.

164 Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC.

165 Mathis (2020), p 10.

166 Zetzsche et al. (2020), pp 3-4.

### 5.5 Regulators' Guidelines

Some countries have non-binding guidelines related to issues regarding crypto-assets, created by regulators.[167] Such guidelines are useful for issuers because the applicability of current general financial regulations in these matters is explained in such documents.[168]

The main disadvantage of these guidelines is that activity compatible with such guidelines cannot guarantee that issuers, developers and other operators do not breach the law.

### 5.6 Regulators' Warnings

Although in most countries ICO issues are not yet regulated, many regulators publish warnings about this method of fundraising.[169] They can be useful not only for investors but also for issuers.

However, such warnings are extremely general and non-binding because regulators focus on indicating certain issues instead of solving existing problems.[170] Therefore, regulations should be created which limit the liability of persons who act in accordance with these warnings.

### 5.7 Innovation Hubs

Interesting examples of regulators' support for crypto-asset companies are innovation hubs,[171] such as, for instance, the Australian innovation hub.[172] Innovation hubs are used to give issuers and other crypto-asset entrepreneurs non-binding advice on the applicability of traditional legal regulations.[173] They are useful because they lend particular advice concerning matters regarding cryptocurrencies.[174]

Some scholars are even of the opinion that in the area of cryptocurrencies innovation hubs should be created instead of legal regulations.[175] In that case, legal rules

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[167] Miller et al. (2018), p 91.

[168] See the Australian ASIC's information sheet (INFO 225) on initial coin offerings and crypto-assets. https://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings-and-crypto-assets/#part-a. Accessed 14 July 2021.

[169] Dell'Erba (2018), p 1124; Allen (2020), pp 11, 13; Maume and Fromberger (2019), p 567; Lausen (2019), p 5.

[170] See the Australian ASIC's information sheet (INFO 225) on initial coin offerings and crypto-assets. https://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings-and-crypto-assets/#part-a. Accessed 14 July 2021.

[171] Weber and Baisch (2019), p 13.

[172] The Australian ASIC's sheet entitled: Innovation hub: practical support and informal assistance. https://asic.gov.au/for-business/innovation-hub/. Accessed 14 July 2021.

[173] Ibid.

[174] Ibid.

[175] Weber and Baisch (2019), p 13.

which limit the liability of operators using support offered through innovation hubs should be developed .

### 5.8 Construction of Maltese Regulations in the Field of ICOs

Malta is a country where regulations on ICOs are in force.[176] These legal provisions are enacted in the Virtual Assets Act 2018,[177] which should be briefly discussed in this part of the article.

According to these regulations, the initial offering of virtual financial assets under Maltese jurisdiction must be preceded by the issuance and registration of a white paper which should comply with the principles defined, among others, in the First Schedule to the Virtual Financial Assets Act 2018.[178] According to this Act, the principles defined by the regulator are applicable to the information published on issuers' websites.[179] There are also special regulations related to ICO advertisements.[180]

Although Malta has jurisdiction for a wide range of disintermediated factual situations related to ICOs, in the case of cross-border Initial Token Offerings, the legal regulations, which are in force at the location of the crypto-exchange involved in the crypto-asset trade, should be applied.[181]

Crypto-asset undertakings should obtain a special licence and be registered in order to fulfil the Maltese legal requirements related to ICOs.[182] Furthermore, a special agent should be appointed in the case of tokens issued under Maltese jurisdiction.[183] Such agent's main obligation is to ensure accordance of an ICO with Maltese legal regulations.[184]

[176] Arts. 3-12 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[177] The Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[178] Arts. 3(1) and 4 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[179] Art. 5 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[180] Art. 6 of Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[181] Arts. 11, 12 and 13 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[182] Arts. 13-16 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[183] Art. 7 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[184] Art. 7(1)(a) of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

The Maltese Virtual Financial Assets Act 2018 also contains detailed anti-manipulation measures.[185] They concern the prohibition of insider dealing and abusive strategies related to crypto-assets.[186]

The Maltese legislator has also regulated issues related to audit requirements and liability of crypto-asset undertakings.[187] In view of the above, the Maltese financial system has undoubtedly been designed to ensure protection of crypto-asset investors.

## 5.9 Construction of French Regulations in the Field of ICOs

### 5.9.1 General Remarks

Legal regulations in the field of ICOs are also in force in France.[188] ICO issues are regulated in the French *Code monétaire et financier*.[189] The legal provisions are extremely general. They contain definitions of:

a. tokens ('*jetons*');[190] and
b. public offering of crypto-assets.[191]

Furthermore, issues regarding informative documents[192] and authorisation related to tokens[193] are also regulated in this legal act.

[185] Arts. 33-37 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[186] Arts. 34-37 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[187] Arts. 50-58 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[188] Arts. L552-1−L552-7 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[189] Ibid.

[190] Art. L552-2 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[191] Art. L552-3 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[192] Art. L552-4 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[193] Arts. L552-1 and L552-4–L552-6 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

### 5.9.2 Definition of Tokens

Under the French regulations, tokens are digital intangible assets which are registered virtually.[194] This definition seems correctly constructed because it is general and technologically neutral. However, it may turn out to be too broad in certain factual situations.

### 5.9.3 Notion of Public Offering of Tokens

The notion of ICO is not explicitly used in French regulations. The legal act in question contains a definition of public offering of tokens.[195] The notion is related to the offering of crypto-assets to the public through the mechanism of subscription.[196]

The definition does not seem to be of a cryptographic and digital nature, but may prove useful. It is also technologically neutral and may therefore have practical value. Still, it should not be used in legal research.

### 5.9.4 Authorisation and Other Issues Regulated in French Legal Provisions

Each public offering of tokens should be authorised by the French financial supervisory authority (AMF).[197] In view of this fact, it is obvious that the issuance of crypto-assets is being supervised. The scope of this supervision is specified.[198]

According to the French regulations, the competent supervisory authority is obliged to:

a. examine if the issuer is reliable;
b. confirm if the issuer is a legal entity; and
c. check if the assets of the issuer are properly monitored and protected.[199]

[194] Art. L552-2 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[195] Art. L552-3 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[196] Ibid.

[197] Art. L552-4 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[198] Art. L552-5 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.

[199] Ibid.

Furthermore, French issuers of tokens must publish documents containing useful information on the issuance of crypto-assets.[200] Disclosure obligations of French crypto issuers are specified in general financial regulations,[201] but, as stated, the disclosure of useful information is regulated separately.[202]

### 5.9.5 Opinion on the French Legal Provisions on ICOs

The French legal provisions on crypto-assets seem extremely general. They do not have any especially designed features to deal with legal situations related to crypto-assets. The same regulations could be created for traditional financial instruments. They were probably enacted only to explicitly regulate that the issuance of crypto-assets should be authorised and supervised by the French financial authority.

## 6 General Remarks on the European Approach to Crypto-asset Issues

The European approach to crypto-asset issues is still evolving. In general, the European ideas related to such matters seem similar to the above-mentioned concepts common in legal research (also outside the European Union).

Most of all, it should be stated that the European institutions aim to develop legal solutions related to crypto-assets and 'digital revolution'.[203] The main example of this approach is the publication of the proposal for a MiCA Regulation which is planned to be applicable only to utility tokens, e-money tokens and other crypto-assets that do not meet the transferability criteria.[204]

In the case of entry into force of the MiCA Regulation, future European legal provisions in the field of crypto-assets would be based on separate approaches related to particular types of assets and specified groups of entities.[205] Hence, the MiCA Regulation would lead to fragmentation of legal approaches to different crypto-assets.[206] Furthermore, in the MiCA proposal, issuers and crypto-service providers are governed by different regulations.[207] This is related to the fact that the legal and factual situations of these groups greatly differ.

Reconciliation between new technologies and traditional financial provisions is thought to be problematic.[208] Therefore, general European financial regulations

[200] Art. 552-4 of the French *Code monétaire et financier*. https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006072026/LEGISCTA000038509541/#LEGISCTA000038509541. Accessed 14 July 2021.
[201] Ibid.
[202] Ibid.
[203] Noble (2020), p 19. See also Kapsis (2020), p 22.
[204] Zetzsche et al. (2020), p 10; Noble (2020), pp 5, 13-15.
[205] See Noble (2020), pp 6-8.
[206] Ibid., pp 1, 6, 7, 11.
[207] Arts. 1(b), 57 and 59 of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).
[208] Noble (2020), pp 2-4.

have to apply to tokens, which are transferable securities, also if the MiCA Regulation enters into force.[209] This distinction between transferable and non-transferable tokens will lead to further fragmentation of crypto-asset issues in the European legal system.[210] Such a construction of European legal provisions relating to crypto-assets should be temporary. It will probably exist until European general crypto-asset regulations enter into force.

## 7 Role of the International Community in the Process of Creating Standardised Financial Regulations in the Area of Cryptocurrencies

### 7.1 General Remarks

It is difficult to develop effective national regulations in the area of ICOs.[211] Many scholars are therefore of the opinion that it is necessary to design an international legal system concerning ICOs and other issues related to cryptocurrencies.[212] This stems from the justified idea that financial regulations concerning ICOs should be internationally standardised.[213]

However, none of the significant international organisations is currently involved in coordinating the creation of such regulations.[214] Therefore, a new international organisation should be set up that would be competent in crypto-asset matters. Under the auspices of such an organisation, a new international legal system for cryptocurrencies could be developed.

### 7.2 Treaties on Matters of Cryptocurrencies

The above-mentioned international organisation should play a significant role in the preparation of an international treaty on cryptocurrency matters. Such a treaty would lead to uniformity of legal provisions concerning cryptocurrencies and ICOs. The most important regulations of this treaty should be legal provisions related to jurisdiction in matters of crypto-assets.[215]

The international legal system should provide for bilateral treaties on the exchange of information in these matters so as to provide for effective countermeasures against international crypto-asset manipulation and money laundering.[216]

[209] See Zetzsche et al. (2020), p 21.
[210] See Noble (2020), pp 6, 7, 11.
[211] Jünemann (2018), p 61; Marian (2015-2016), p 53; Davidson (2019), p 802.
[212] Jünemann (2018), p 61.
[213] Block et al. (2020), p 2; Trotz (2019), p 455.
[214] Dell’Erba (2018), p 1128; Basaran (2019), pp 773-777.
[215] Similar considerations are related to national issues (Gurrea-Martinez and Remolina (2019), p 40).
[216] Debler (2018), pp 268-270. See also Marian (2019), p 533.

### 7.3 Internationally Recommended Regulations in the Field of Crypto-Assets

Instead of an international treaty, the development of non-binding model regulations at international level could be considered. Alternatively, global guidance on ICO matters could be developed.[217]

The above-mentioned international solutions could lead to world-wide uniformisation and standardisation of cryptocurrency issues. In that case, it would not be necessary to reach international consensus on these matters.

## 8 New Legal Theory of Regulations in the Field of Initial Coin Offering

### 8.1 General Remarks

It is doubtless that a new legal framework concerning crypto-assets should be created in the future.[218] In most countries there are no special regulations,.[219] This stems from the fact that crypto-asset trade is not common yet[220] and is still in the beginning phase[221] although it is starting to become mainstream.[222] Furthermore, legislators are aware that the shape of the crypto-asset market is still evolving.[223] Therefore, a 'wait-and-see' approach in the area of cryptocurrencies is still justified in contemporary legal systems.[224]

Nonetheless, it is necessary to discuss the shape of future legal regulations concerning crypto-assets. It is obvious that the entry into force of a new legal framework should be preceded by the creation of a new theory of crypto-financial law.[225]

### 8.2 General Principles of a New Legal Framework in the Field of Crypto-assets

Fundamental general principles of a future legal framework should be created before complex legal solutions concerning Initial Coin Offering are developed.[226]

[217] Tiwari et al. (2020), p 435.
[218] Briggs (2018), pp 426-427; Fong (2018), p 76; Hughes and Middlebrook (2015), p 498; Sherman (2018), pp 17-18; Davidson (2019), p 803.
[219] Basaran (2019), pp 766, 777; O'Connor (2019), p 568; Kaal (2018), pp 47-48; Heideman (2019), p 137; Marian (2019), p 539.
[220] Yano et al. (2019), p 109.
[221] Amsden and Schweizer (2018), p 40.
[222] Bratspies (2018), p 15.
[223] Dell'Erba (2018), p 1116.
[224] See Tjio and Hu (2020); Ally et al. (2015).
[225] Cvetkova (2018), p 151. See also Dell'Erba (2018), p 1132; Davidson (2019), p 810.
[226] Dell'Erba (2018), p 1132. See also Cvetkova (2018), p 151.

First of all, a legal framework in the area of ICOs should be flexible[227] in order to prevent future problems related to outdated legal regulations. This is crucial because the crypto-asset market and new financial technologies are still changing.[228]

Furthermore, new financial regulations should be protective of investors but should not discourage entrepreneurs.[229] In view of the above, legislators should not limit the development of a modern financial market, but this should not lead to a 'Crypto Wild West'.[230]

New legal regulations in the area of Initial Coin Offering should be general in order to make it impossible to avoid them.[231] It is also important to create clear principles related to jurisdiction in these matters.[232]

A new legal framework in the area of ICOs should be technologically neutral in order to be resistant to changes in financial technology and prevent avoidance of crypto regulations.[233]

Finally, new financial regulations should focus on counteracting scams and fraud.[234] However, they should not be too complex so as not to have a negative influence on the development of the crypto-asset market.

### 8.3 Scope of the New Regulations

New legal regulations in the field of ICOs should concern especially jurisdictional matters,[235] issues of taxonomy,[236] disclosure and reporting requirements,[237] anti-money laundering principles,[238] anti-fraud provisions,[239] payment rules,[240] liability insurance requirements,[241] registration obligations,[242] licence obligations,[243] audit obligations,[244]

[227] An et al. (2018), p 8; Link and Kunz (2019), p 18.
[228] Steverding and Zureck (2020), p 36. See also Dell'Erba (2018), p 1116.
[229] MacNiven (2018-2019), p 4; Hughes and Middlebrook (2015), pp 498-499.
[230] Lockaby (2018), p 366; Varriale (2013), p 17; Shulman (2020), pp 62, 75.
[231] See Fong (2018), p 62.
[232] Debler (2018), p 253; Fitts (2019), pp 928-929; Morton (2020), p 142; Alvarez (2018), p 56; Davidson (2019), p 790.
[233] See Walker (2019), p 6; Essaghoolian (2019), p 330; Frick (2019), p 105.
[234] Weber and Baisch (2019), pp 28-29.
[235] Debler (2018), p 253; Fitts (2019), pp 928-929.
[236] Lausen (2019), p 13. See also Dell'Erba (2020), p 223; Dell'Erba (2019), p 33; Rohr and Wright (2019), p 477.
[237] Yano et al. (2019), p 109. See also Tiwari et al. (2020), p 438; Adhami and Giudici (2019), p 70; Howell et al. (2018-2019), p 14; MacNiven (2018-2019), p 7; Fong (2018), p 75; Preston (2017-2018), p 330.
[238] Gurrea-Martinez and Remolina (2019), pp 35-36; Dell'Erba (2018), p 1121; Dell'Erba (2019), pp 28, 45.
[239] MacNiven (2018-2019), p 7; Briggs (2018), p 426.
[240] van Beusekom (2019), p 25; Trotz (2019), p 440.
[241] Trotz (2019), p 438.
[242] See Tiwari et al. (2020), p 436; Higgins (2018), p 233; Essaghoolian (2019), p 339.
[243] Arts. 13-16 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.
[244] See Dell'Erba (2019), pp 24-25.

legal provisions concerning intermediaries,[245] legal principles related to rating agencies, and secondary market issues.[246]

### 8.4 Jurisdictional Issues

Because of the fact that crypto-asset trade is borderless and virtual,[247] developing effective principles of jurisdiction in the area of cryptocurrencies is extremely difficult.[248] Jurisdictional problems are probably the main reason for the lack of regulations in the field of ICOs.[249]

Therefore, internationally binding principles of jurisdiction should be created. Such principles can be based on the notion of issuers' beneficial owners[250] or the place of issuers' management.[251] Regulations based on the place of registration may be ineffective because many entrepreneurs could decide to establish mailbox companies in blockchain paradises so as to avoid undesirable jurisdictions.[252]

It could also be considered to base the rules in question on the jurisdiction of the purchaser of the crypto-assets. Such jurisdiction could be valuable for anti-money laundering purposes.

### 8.5 Normative Taxonomy of Cryptocurrencies

Normative taxonomy of cryptocurrencies is not merely a theoretical issue. Payment tokens, utility tokens and investment tokens should be treated in different ways by regulators and legislators. For example, the Maltese Virtual Financial Assets Act is applicable only to financial tokens.[253] Regulations concerning pure utility tokens should be focused on jurisdictional issues and anti-fraud rules, whereas regulations in the area of security tokens and payment tokens should be more complex and more developed.[254] They should concern not only issues of jurisdiction[255] and manipulation[256] but also matters related to registration of issuers,[257]

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245 Tjio and Hu (2020); Weber and Baisch (2019), p 25.
246 See Tiwari et al. (2020), p 435; Crane (2018), p 812.
247 Marian (2019), p 554; Kaal (2018), p 42.
248 Maume and Fromberger (2019), p 563; Debler (2018), p 253; Fitts (2019), pp 928-929; Rohr and Wright (2019), p 485.
249 See Debler (2018), p 253.
250 See Marian (2019), p 542.
251 See Davidson (2019), p 823.
252 See Maume and Fromberger (2019), p 572; https://www.e-zigurat.com/innovation-school/blog/blockchain-paradise/. Accessed 14 July 2021. See also Marian (2019), pp 529, 532, 541, 550, 551, 552, 553; Essaghoolian (2019), p 339.
253 Art. 3(1) of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.
254 Tjio and Hu (2020).
255 Debler (2018), p 253; Fitts (2019), pp 928-929; Morton (2020), p 142; Alvarez (2018), p 56; Davidson (2019), p 790.
256 Briggs (2018), p 426.
257 See Tiwari et al. (2020), p 436; Preston (2017-2018), p 330.

disclosure obligations,[258] reporting standards[259] and secondary market principles.[260]

### 8.6 Registration Obligations

It is obvious that payment tokens and security tokens should be registered by their issuers.[261] In many countries, crypto-assets are currently registered in registers which were created for traditional financial purposes.[262] In some countries, there are special registers of crypto-assets for anti-money laundering purposes (e.g. in Australia)[263] and general registers of crypto-assets (e.g. in Malta and Gibraltar).[264] Central registers of crypto-assets, crypto-asset issuers and ICOs should be kept in all countries.[265] The creation of an international register for crypto-asset purposes should also be considered.

Current methods of registration in the field of cryptocurrencies are based on standard solutions applicable to traditional financial instruments.[266] However, crypto-assets have many digital features which can enable the entry into force of new methods of registration. For instance, the development of automatic methods of registration, which could be directly connected to smart contracts, could be considered.[267] Such a solution could prove extremely effective in the case of ICOs. Hence, the obligation to register new tokens through smart contracts seems particularly innovative and ideally tailored to crypto-assets.

### 8.7 Licence Obligation

The quality of the professional activities of crypto-asset issuers, crypto-asset intermediaries, crypto-asset rating agencies and other institutions involved in crypto-asset trade could be ensured by the obligation to obtain special licences.[268] Special

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258 See Tiwari et al. (2020), p 438; Howell et al. (2018-2019), p 14; Preston (2017-2018), p 330.

259 Preston (2017-2018), p 330.

260 See Trotz (2019), p 446; Briggs (2018), p 426; Gurrea-Martinez and Remolina (2019), pp 35-36.

261 See Tiwari et al. (2020), p 435; O'Connor (2019), p 564.

262 Crosser (2018), p 395.

263 Part 6A of the Australian Anti-Money Laundering and Counter-Terrorism Financing Act 2006. https://www.legislation.gov.au/Details/C2019C00011. Accessed 14 July 2021.

264 Alkadri (2018-2019), pp 85-86; Weber and Baisch (2019), p 18. See also arts. 3, 7 and 16 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

265 See Higgins (2018), p 233.

266 See Crosser (2018), p 395. See also Part 6A, Division 3 of the Australian Anti-Money Laundering and Counter-Terrorism Financing Act 2006. https://www.legislation.gov.au/Details/C2019C00011. Accessed 14 July 2021.

267 See Robinson (2018), p 959; Olivier and Jaccard (2017), p 3.

268 Crane (2018), p 813; Weber and Baisch (2019), pp 8, 13; Gurrea-Martinez and Remolina (2019), p 35. See also art. 13 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

requirements[269] should be included in regulations, imposing on crypto-asset issuers the obligation to obtain special licences.[270]

### 8.8 Payment Rules

Each ICO can turn out to be a scam.[271] Therefore, several regulators from different countries decided to publish official warnings concerning ICO issues.[272] However, such a solution is not effective and even naïve.

The most effective method of counteracting fraud committed by crypto-asset issuers seems to be special payment rules for ICO purposes. Some scholars postulate that payments for tokens should be made into a separate bank account[273] which could be prepaid.[274] This would be a good solution because it could protect crypto investors. Other researchers are of the opinion that tokens and money paid for cryptocurrencies issued should be held by third-party custodians.[275] Such a model would lead to additional control over crypto issuers.

All the above-mentioned rules seem reasonable because they make it difficult for crypto-asset issuers to misappropriate investors' money or tokens.[276]

### 8.9 Anti-money Laundering Regulations

It is obvious that legislators should create special legal provisions to counteract money-laundering in the area of ICOs.[277] Such regulations should be countermeasures against the anonymity and pseudonymity of investors and entrepreneurs.[278]

KYC (Know Your Customer) obligations should be imposed on issuers.[279] Still, such obligations should not merely consist of a voluntary declaration of the investor. Investors should prove their identity through a bank transfer, digital signature or in another effective way.

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[269] See arts. 13-22 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021. See also arts. 15(1) and 43 of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[270] Weber and Baisch (2019), p 8; Gurrea-Martinez and Remolina (2019), p 35; Crane (2018), p 813. See also art. 13 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[271] An et al. (2018), p 2. See also MacNiven (2018-2019), p 11; Sherman (2018), p 17; Weber and Baisch (2019), pp 28-29.

[272] Allen (2020), p 13.

[273] van Beusekom (2019), p 25.

[274] Hughes and Middlebrook (2015), p 534.

[275] Trotz (2019), p 440.

[276] See van Beusekom (2019), p 25; Tiwari et al. (2020), p 434.

[277] Weber and Baisch (2019), p 23; Debler (2018), pp 252-254; Dell'Erba (2018), p 1121.

[278] Gurrea-Martinez and Remolina (2019), p 37; Walker (2019), p 5; Hönig (2018), p 10; Marian (2015-2016), pp 57, 63; Morton (2020), p 138.

[279] Gurrea-Martinez and Remolina (2019), p 35; Dell'Erba (2018), p 1121; Dell'Erba (2019), pp 28, 45; Adhami and Giudici (2019), p 71; Fong (2018), p 68; Debler (2018), p 254.

Furthermore, countermeasures against the anonymity of investors should be supported by regulations on the international exchange of information in crypto-asset matters.[280] For instance, it is suggested to create an International Information Sharing Agreement.[281]

## 8.10 Disclosure Regulations

### 8.10.1 General Remarks

In principle, no special rules concerning disclosure obligations in the case of ICOs are in force[282] (except in the Maltese financial legal system[283]). It is obvious that such regulations could limit fraud.[284] However, in some countries traditional financial regulations concerning prospectuses are applicable to ICOs.[285]

Instead of prospectuses, issuers of crypto-assets use several methods to communicate with potential investors. The most common method of disclosure of information on ICOs is the issuance of white papers, which are similar to prospectuses.[286] Additionally, issuers use special forums, issuers' websites and social media as channels of communication with future purchasers of their coins and tokens.[287] In Malta, white papers, issuers' websites and advertisements of ICOs must comply with binding legal regulations.[288]

There is no doubt that disclosure obligations should be imposed not only on issuers of crypto-assets but also on investors[289] and that false disclosure of information should lead to civil, penal and administrative liability.[290]

### 8.10.2 Disadvantages of White Papers

Although disclosure of information on cryptocurrencies through white papers is the most common method of communication between issuers and future token holders, such documents have many major disadvantages.[291]

[280] Debler (2018), pp 268-270. See also Marian (2019), p 533.
[281] Debler (2018), p 268.
[282] See An et al. (2018), p 8.
[283] Arts. 3-5 of the Maltese Virtual Financial Assets Act 2018 https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.
[284] Brake (2020), p 193; Fong (2018), p 75.
[285] See Crosser (2018), p 395; Miller et al. (2018), p 98; Arnold (2019), p 56; Weber and Baisch (2019), p 15.
[286] See Tiwari et al. (2020), p 424; Iurina (2017), p 15; Marian (2019), p 539.
[287] Danatzis (2019), p 32; van Beusekom (2019), p 17; Varmaz and Varmaz (2018), p 132; Meadows (2018), p 282.
[288] Arts. 3-6 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.
[289] Fong (2018), p 68.
[290] Trotz (2019), pp 431, 450; Noto La Diega et al. (2019), p 7.
[291] Steverding and Zureck (2020), p 21; Gurrea-Martinez and Remolina (2019), pp 18, 32; Boreiko and Risteski (2020), p 3; Liu and Wang (2019), p 129; Gurrea-Martinez and Remolina (2019), p 14; Dell'Erba (2019), p 25; Tiwari et al. (2020), p 435.

First of all, there are no special regulations concerning mandatory information which should be in these white papers.[292] This leads to informational asymmetry.[293]

Furthermore, the information in the white papers is not reviewed and audited by experts.[294] For this reason, such information is frequently misleading.[295]

It should also be noted that there are no special liability rules which could apply to issues regarding white papers. In some countries, spreading misleading information through white papers can lead to liability under consumer protection law[296] and civil law.[297]

Such misstatements should be prohibited under penalty of law. Legal principles related to civil liability could also be designed for the issuance of unreliable white papers, because there are often omissions and misinformation in those documents.[298]

Finally, current white papers are often difficult to understand. They should therefore be written in plain English.[299]

#### 8.10.3 Proposals for Mandatory Information to Be Disclosed in White Papers

It is obvious that new legal provisions related to white papers should include a list of mandatory information to be disclosed,[300] such as:

a. the issuers' and developers' identity;[301]
b. the beneficial owners of the issuer;[302]
c. the location of the issuer;[303]
d. the status and basic features of the issuer;[304]
e. information on the issuer's activity;[305]
f. technical information on the tokens issued;[306]

[292] Steverding and Zureck (2020), p 21; Gurrea-Martinez and Remolina (2019), pp 18, 32; Meadows (2018), p 282.

[293] Boreiko and Risteski (2020), p 3; Liu and Wang (2019), p 129.

[294] Gurrea-Martinez and Remolina (2019), p 14; Dell'Erba (2019), p 25; Tiwari et al. (2020), p 435.

[295] Meadows (2018), p 282.

[296] van Beusekom (2019), p 22.

[297] van Beusekom (2019), p 2; Tiwari et al. (2020), p 432.

[298] Meadows (2018), p 282.

[299] Trotz (2019), p 449.

[300] Ibid., p 436.

[301] Yano et al. (2019), pp 121-122; Trotz (2019), p 442.

[302] See Marian (2019), p 542.

[303] Gurrea-Martinez and Remolina (2019), p 32.

[304] Yano et al. (2019), pp 121-122; art. 7(f) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[305] See Yano et al. (2019), pp 121-122; art. 7(j) of First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[306] Gurrea-Martinez and Remolina (2019), p 13; Rohr and Wright (2019), p 465; art. 7(b) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021. See also arts. 5(1)(e) and 46(2)(e) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

g. price of the tokens and methods of payment;[307]
h. number of tokens that are planned to be issued;[308]
i. rights of the investors;[309]
j. goals of the fundraising;[310]
k. risks related to the ICO organised;[311]
l. investment strategy;[312]
m. detailed description of the financed project;[313]
n. usability of the financed project;[314]
o. information on potential investors and the distribution of tokens;[315]
p. predicted duration of the financed project;[316]
q. predicted profits from the investment;[317]
r. auditor's opinion on the financed project;[318]
s. information on the complaint procedure;[319]
t. information on the financial guarantees;[320]
u. information on the reserve of assets;[321]
v. information on the risks related to the crypto-assets;[322]

[307] van Beusekom (2019), p 17; art. 7(z) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[308] Art. 7(p) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[309] See Gurrea-Martinez and Remolina (2019), p 13; Yano et al. (2019), pp 121-122; art. 17(1)(e) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[310] Howell et al. (2018-2019), p 17; art. 7(d) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[311] Arts. 7(d) and art. 7 (ab) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[312] Dell'Erba (2018), p 1112.

[313] Brake (2020), p 193; Meadows (2018), p 282; arts. 5(1)(b) and 46(2)(a) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[314] Brake (2020), p 193; Gurrea-Martinez and Remolina (2019), p 13; art. 7(c) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[315] Arts. 7(k) and 7(g) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[316] Brake (2020), p 193.

[317] Dell'Erba (2018), p 1112; Gurrea-Martinez and Remolina (2019), p 13.

[318] See Gurrea-Martinez and Remolina (2019), pp 13-14; art. 4(1)(ae) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[319] Art. 17(1)(g) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[320] See art. 4(1)(x) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[321] Art. 17(1)(b) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[322] Arts. 5(1)(f), 5(5) and 46(2)(e) of Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

w. information on issues regarding custody;[323]
x. information on the suitability of the ICO procedure for the financed project;[324]
y. information about tax issues significant for investors;[325]
z. the issuer's plans for the future.[326]

Furthermore, there are researchers who believe that Initial Business Plans should be attached to the white papers,[327] which would be a good idea. It could even be considered to attach other documents, such as, for example, as stated in the MiCA proposal, summaries and warnings.[328]

### 8.10.4 Reporting Obligations

Disclosure obligations should also be fulfilled through temporary reporting,[329] This means that issuers should be obliged to report amendments in the information included in the white papers, whereas owners of crypto-assets should be obliged to inform regulators of the purchase and disposal of their tokens.[330]

## 8.11 Anti-manipulation Regulations

Fraudulent ICOs are frequent.[331] Some financial specialists even believe that all ICOs are scams,[332] which seems exaggerated. However, counteracting manipulation and fraud in the field of ICOs is undoubtedly an extremely important task of legislators and regulators.[333] In Malta, for instance, insider trading, illegal disclosure of information and abusive strategies related to crypto-assets are prohibited.[334]

[323] Art. 17(1)(c) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).
[324] Art. 7(a) of the First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.
[325] Art. 7(u) of First Schedule to the Maltese Virtual Financial Assets Act. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.
[326] Yano et al. (2019), pp 121-122.
[327] Adhami and Giudici (2019), p 68.
[328] Arts. 17(2) and 5(7) of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).
[329] Preston (2017–2018), p 330.
[330] See Fong (2018), p 68.
[331] MacNiven (2018-2019), p 11; Wilson (2019), p 368. See also Tiwari et al. (2020), p 430; Hönig (2018), p 24; Walker (2019), p 6; Block et al. (2020), p 7; Dell'Erba (2018), p 1112; Link and Kunz (2019), p 18; An et al. (2018), p 19; Dell'Erba (2020), p 182; Howden (2015), p 742; Essaghoolian (2019), p 297.
[332] An et al. (2018), p 2.
[333] Preston (2017-2018), p 319; Briggs (2018), p 426.
[334] Arts. 33-37 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

Primary market manipulation should especially be counteracted by auditors, whereas countermeasures against secondary market manipulation[335] should impose obligations on crypto-exchanges and other trading platforms.[336]

## 8.12 Audit Requirements, Rating Agencies and Lists of Trusted ICOs

The quality of crypto-assets and ICOs should be evaluated in an organised and professional way.[337] Such evaluation can be prepared by auditors[338] or rating agencies.[339] Eventually, regulators can draw up lists of trusted ICOs.[340]

There are those who believe that token holders should be protected through supervision and monitoring of ICOs by auditors and lawyers.[341] They are quite right because ICOs should be supervised by reliable professionals. A serious problem is also the fact that the due diligence obligation does not exist in the case of ICOs.[342]

The role of rating agencies in these matters is currently played by listing platforms.[343] Contrary to rating agencies, the quality of information provided by listing platforms is unstandardised.[344] Legal regulations should be created as regards mandatory obligations to be fulfilled by such platforms.

It is important to add that France has an official white list of trusted ICOs.[345] A similar register exists in Gibraltar.[346] Such an idea could certainly be applied instead of audit requirements and regulations concerning listing platforms.

In view of the above, legal regulations concerning the evaluation of ICOs should be designed. Such regulations could concern listing platforms, audit obligations and official lists of trusted ICOs.

## 8.13 Liability Insurance

A significant problem related to ICOs is the lack of mandatory liability insurance.[347] This obligation should be imposed on issuers of tokens, developers of ICOs and other institutions involved in ICOs. This legal solution would protect investors.

335 Meadows (2018), p 286.

336 Dell'Erba (2020), p 213; Trotz (2019), p 446. See also art. 37 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021, and arts. 76-80 of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

337 See Tiwari et al. (2020), p 435.

338 See Dell'Erba (2019); art. 50 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

339 See van Beusekom (2019), pp 7, 28.

340 Weber and Baisch (2019), p 16.

341 Gurrea-Martinez and Remolina (2019), p 32; Dell'Erba (2019), p 24.

342 Tiwari et al. (2020), p 434; Trotz (2019), p 436.

343 See van Beusekom (2019), pp 7, 28.

344 Ibid., p 32.

345 Weber and Baisch (2019), p 16.

346 Ibid., p 18.

347 Trotz (2019), p 438.

### 8.14 Regulations Concerning Crypto-asset Intermediaries

Although the crypto-asset world is thought to be disintermediated,[348] there are crypto-asset intermediaries such as crypto exchanges,[349] clearing houses,[350] wallet providers[351] and custody service providers.[352]

Issues related to the activities of such enterprises should be regulated because they can have an impact on the proper functioning of the crypto-asset market.[353]

It is obvious that all crypto-asset service providers should be neutral and independent of issuers.[354] It seems extremely difficult to design standardised regulations concerning crypto-asset intermediaries because such intermediaries are greatly varied.[355] The most important matters to be regulated in these legal provisions are jurisdictional issues regarding such enterprises.

### 8.15 Secondary Market Regulations

Crypto exchanges play a significant role in the post-ICO phase.[356] Therefore, a proper and effective legal framework should be set up as regards the secondary crypto-asset market.[357]

The most important legal task in such matters is the creation of jurisdictional rules related to crypto exchanges. This is obvious because conflicts of laws and avoidance of jurisdiction can become serious problems for the effectiveness of future regulations in the field of ICOs. So-called blockchain paradises, which are countries enabling the avoidance of jurisdiction in crypto-asset matters, should be counteracted.[358]

In the legislative process concerning secondary market regulations, lawmakers should also focus on anti-manipulation and anti-money laundering matters.[359] It is especially important to create crypto-asset secondary market regulations based on current KYC (Know Your Customer) rules.[360]

[348] Block et al. (2020), p 6; Lebersorger (2018), p 29; Varmaz and Varmaz (2018), p 130; Walker (2019), p 10; Dell'Erba (2020), p 177; Marian (2019), p 554.

[349] Weber and Baisch (2019), p 25; Steverding and Zureck (2020), p 27.

[350] Block et al. (2020), p 6; Marian (2015-2016), p 58; O'Connor (2019), p 560.

[351] Weber and Baisch (2019), p 25; Hughes and Middlebrook (2015), p 496; Marian (2015-2016), p 58.

[352] Trotz (2019), p 440; Hughes and Middlebrook (2015), p 497.

[353] See Tjio and Hu (2020); Weber and Baisch (2019), p 25. See also arts. 57 and 62 of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593).

[354] See Trotz (2019), p 445.

[355] Maume and Fromberger (2019), p 579.

[356] Steverding and Zureck (2020), p 27.

[357] Crane (2018), p 812.

[358] https://www.e-zigurat.com/innovation-school/blog/blockchain-paradise/. Accessed 14 July 2021. See also Marian (2019), pp 529, 532, 550, 551, 552, 553.

[359] See Trotz (2019), p 446; Briggs (2018), p 426; Brown (2019), p 154.

[360] See Gurrea-Martinez and Remolina (2019), p 35.

Finally, it is also necessary to impose registration, reporting and auditing requirements on crypto exchanges. Legal provisions on such issues should lead to improvement of the quality of crypto-asset services.

Such regulations would undoubtedly increase investors' security. They should be tailored for crypto-asset purposes but can be based on traditional financial legal solutions. This is extremely important because secondary market manipulation is a frequent occurrence.[361]

## 9 Recommendations for Legislators

First of all, legislators should emulate the regulations in force in other countries, which can thus lead to unofficial harmonisation of legal solutions regarding ICOs. This consideration is especially important in the field of jurisdictional matters. A similar strategy is recommended in the case of non-binding international and supranational legal documents in the area of cryptocurrencies (such as the MiCA proposal), which should also be adapted by national lawmakers.

Furthermore, national financial regulations concerning ICOs should be based on well-considered principles.[362] Such principles could be:

a. technological neutrality;[363]
b. flexibility;[364]
c. effectiveness;[365] and
d. general nature of new solutions.

Legislators should also enact regulations enabling crypto-asset enterprises to automatically fulfil their registration, reporting and disclosure obligations through smart contracts.[366]

It should be possible to apply general consumer law, contract law and financial law in the case of issues not regulated in new regulations. This means that new regulations should be supported by traditional legal solutions. However, legislators should mainly counteract the development of a so-called 'Crypto-Wild West'.[367] In this way, there should be no crypto-asset areas without regulations.

In the framework of these regulations, legislators should pay special attention to payment rules,[368] anti-scam regulations, anti-manipulation principles[369] and the

[361] Meadows (2018), p 286.
[362] Dell'Erba (2018), p 1132; Cvetkova (2018), p 151.
[363] Walker (2019), p 6; Essaghoolian (2019), p 330; Frick (2019), p 105.
[364] An et al. (2018), p 8; Link and Kunz (2019), p 18.
[365] See Gurrea-Martinez and Remolina (2019), pp 31-32; Fong (2018), p 62.
[366] Preston (2017-2018), p 330; Robinson (2018), p 959.
[367] See Lockaby (2018), p 366; Varriale (2013), p 17; Shulman (2020), p 62; Crosser (2018), p 381; Robinson (2018), p 960.
[368] van Beusekom (2019), p 25; Trotz (2019), p 440.
[369] MacNiven (2018-2019), p 7; Briggs (2018), p 426.

effectiveness of liability insurance requirements.[370] Furthermore, crypto-investigation units should be set up[371] and it should be made difficult or impossible for well-established companies to use ICOs to avoid regulations concerning IPOs.[372]

In addition, obligations related to counteracting primary and secondary market manipulation should be imposed on crypto-asset intermediaries. A well-developed system of crypto licences should be set up as well.[373]

A well-organised system of support for investors and entrepreneurs should also be created. For instance, regulators could draw up lists of trusted crypto-asset issuers and crypto exchanges.[374] Furthermore, national authorities should develop official platforms which could contribute to arriving at a professional and binding interpretation of the new legal regulations.[375]

## 10 Recommendations for the European Union

In view of the above considerations related to a European legal framework, a crypto-asset legal order compatible with the proposal for a MiCA Regulation would undoubtedly be extremely complicated, heterogenous and difficult to apply.

Therefore, general European regulations in the field of crypto-assets should be created. Such legal provisions should be well thought out so as not to be discriminative or favourable in comparison with general regulations in the field of financial instruments.

Crypto-asset regulations should definitely be harmonised.[376] There are also justified opinions that the MiCA Regulation and financial European provisions should be coordinated.[377]

It is also obvious that current proposals for regulations in the field of crypto-assets are temporary. Hence, it is necessary to design comprehensive legal regulations regarding cryptocurrencies in the next phase of harmonisation of these matters.

[370] Trotz (2019), p 438.

[371] Such units exist at national levels (Mokhtarian and Lindgren (2018), pp 138, 150; Vrazel (2019), p 559; Marian (2019), pp 563-564).

[372] Higgins (2018), p 221; Essaghoolian (2019), p 294.

[373] See Noto La Diega et al. (2019), p 7; Crane (2018), p 813; Weber and Baisch (2019), pp 8, 13; Gurrea-Martinez and Remolina (2019), p 35; art. 13 of the Maltese Virtual Financial Assets Act 2018. https://legislation.mt/eli/cap/590/eng/pdf. Accessed 14 July 2021.

[374] Such list exist, for example, in France (Weber and Baisch (2019), p 16).

[375] Such platforms exist in Australia (see the Australian ASIC's sheet entitled: Innovation hub: practical support and informal assistance. https://asic.gov.au/for-business/innovation-hub/. Accessed 14 July 2021).

[376] See Mathis (2020), p 11.

[377] Zetzsche et al. (2020), p 24.

## 11 Recommendations for the International Community

An international system of standardised regulations in the field of crypto-assets needs to be developed. Such a system could be based not only on a multilateral treaty but also on bilateral agreements.[378] Furthermore, a new international organisation whose tasks would concern crypto-asset matters, could be created.[379] Model regulations in the area of crypto-assets could be developed under the auspices of such an organisation.

There is no doubt that international uniform principles of jurisdiction should be enacted in an international treaty on crypto-asset matters,[380] with respect to the fact that jurisdictional rules should be the same in all countries as jurisdictional conflicts in the area of ICOs are to be avoided.

Furthermore, the international community must counteract blockchain paradises and crypto-mailbox companies.[381] In view of the above, issues related to the exchange of information in crypto-asset matters should be regulated in bilateral agreements.[382] It would also be a good idea to conclude model bilateral conventions on the exchange of information in these matters.[383]

## 12 Conclusions

Although most countries have adopted a ‘wait and see’ approach in the area of Initial Coin Offerings,[384] new regulations should be designed to ensure a proper functioning of the token market.[385]

New regulations should not be ‘ad hoc’,[386] which means that a legal theory of cryptocurrencies and a legal theory of Initial Coin Offering should be created before legal acts concerning these matters enter into force.[387] Furthermore, new crypto regulations in Member States should be based on the solutions included in the proposal for a MiCA Regulation. This is regardless of whether the MiCA will enter into force or not. It stems from the fact that the relevant legal provisions should be uniform.

First and foremost, new crypto-asset regulations should be general and technologically neutral.[388] Such a solution should make it difficult to avoid new legal

[378] Debler (2018), pp 268-270.
[379] See Basaran (2019), p 773; Howden (2015), pp 745-746.
[380] See Gurrea-Martinez and Remolina (2019), p 40; Morton (2020), p 1142.
[381] See Maume and Fromberger (2019), p 572; https://www.e-zigurat.com/innovation-school/blog/blockchain-paradise/. Accessed 14 July 2021. See also Marian (2019), pp 529, 532, 550, 551, 552, 553.
[382] Debler (2018), pp 268-270.
[383] Ibid.
[384] See Ally et al. (2015); Tjio and Hu (2020).
[385] Gamble (2017), p 348.
[386] Dell’Erba (2020), p 179.
[387] See Cvetkova (2018), p 151; Dell’Erba (2018), p 1132.
[388] See Walker (2019), p 6; Essaghoolian (2019), p 330; Frick (2019), p 105.

provisions. Technologically neutral regulations should also be resistant to future changes in financial and cryptographic technologies.

Regardless of technological neutrality, disclosure and reporting obligations should be fulfilled automatically through smart contracts.[389] A similar solution could be applicable to registration.[390]

Furthermore, it is necessary to elaborate a taxonomy of tokens and Initial Coin Offering. This is crucial because Initial Coin Offerings of payment tokens, investment tokens and utility tokens should be subject to different legal regulations.

Regulations on payment and security tokens should definitely act as countermeasures against fraud, whereas in the case of financial regulations concerning utility tokens, legislators and legal theoreticians should focus on general principles of consumer protection.

The most complex regulations should concern investment tokens. Such legal provisions should be based on current financial regulations but must differ from them because of the fully virtual nature of crypto-assets.

The main legal problem of cryptocurrencies, which should be solved immediately, is the jurisdictional issue. Principles of jurisdiction should be discussed in an international forum under the auspices of an international organisation competent in such matters.

However, none of the existing international organisations is involved in the process of designing future crypto-asset regulations.[391] Therefore, such regulations should be created at national level. Until international regulations enter into force, national principles of jurisdiction in the field of ICOs should be based on the location of the beneficial owners of the issuers or the location of the purchasers of crypto-assets.

It is recommended that the new legal framework in the area of investment tokens should be based on a detailed division of ICO phases.

Regulations concerning the pre-ICO phase could concern especially audit requirements and disclosure obligations related to white papers and the process of obtaining licences.[392]

Regulations applicable to issues regarding primary market trade should be developed. New regulations should be applied to payment,[393] registration,[394] anti-money laundering (especially Know Your Customer obligations)[395] and mandatory liability insurance requirements.[396]

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[389] See Olivier and Jaccard (2017), p 3; Crosser (2018), p 386.

[390] Ibid.

[391] Basaran (2019), p 773.

[392] See Steverding and Zureck (2020), p 19; Adhami and Giudici (2019), p 63; Varmaz and Varmaz (2018), p 132; Crane (2018), p 813; Weber and Baisch (2019), pp 8, 13; Gurrea-Martinez and Remolina (2019), p 35.

[393] See van Beusekom (2019), p 25; Trotz (2019), p 440.

[394] See Tiwari et al. (2020), p 436; Higgins (2018), p 233; Essaghoolian (2019), p 339.

[395] Dell'Erba (2019), pp 28, 45; Dell'Erba (2018), p 1121; Adhami and Giudici (2019), p 71; Fong (2018), p 68; Debler (2018), p 254; Gurrea-Martinez and Remolina (2019), pp 35-36.

[396] Trotz (2019), p 438.

Regulations applicable to the post-ICO phase should focus on reporting obligations and the proper functioning of crypto exchanges, other crypto-asset intermediaries and listing platforms.[397] Furthermore, obligations related to counteracting secondary market manipulation should be imposed on crypto-asset intermediaries.[398]

There is no doubt that new financial regulations in the area of ICOs should be well conceived and resistant to technological changes. Because of the fact that the crypto-asset trade is global, new regulations should be internationally uniform.

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[397] See Steverding and Zureck (2020), pp 19, 27; Adhami and Giudici (2019), p 63; Dell'Erba (2020), p 213; Trotz (2019), p 446.

[398] See Trotz (2019), p 446; Dell'Erba (2020), p 213.

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