比特幣暨虛擬資產發展白皮書





貢獻者

團體會員













































比特幣暨虛擬資產發展白皮書 編撰團隊

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序

台灣擁有全球頂尖之軟體技術人才,近年台灣虛擬資產產業及相關應用亦屢 獲國際媒體報導,然而台灣對於虛擬資產的監管仍在萌芽階段,在法制及監管制 度仍在萌芽及相對不確定的環境下,不利於虛擬資產產業在台發展,為改善此種 情況,本協會便油然而生。

本協會自 2021 年成立以來,致力於推動虛擬資產相關法規調適,並以虛擬資產之應用及發展為宗旨,協助台灣建立良好健全之虛擬資產環境、促進相關產業及整體經濟向上發展。本協會成立目標之一,即是推動成立產業同業公會,過去三年協會持續與台灣各業者合作推動各項活動,並與各公部門、政府機關持續溝通,並成功於 2023 年 9 月完成申請虛擬通貨商業業別工作,台灣虛擬通貨產業公會即將成立。協會的階段性目標已經完成,為持續發揚本協會的宗旨,並協助日後成立的虛擬資產同業公會,本協會諮詢各專家學者,正式提出比特幣暨虛擬資產發展白皮書,說明本協會未來在推動三大方針之具體行動方案,供各界參考:

- (一)比特幣對台灣的四大重要性;
- (二)推動虛擬資產在台監理及應用;
- (三)推動區塊鏈技術在台應用及國際交流。



第一章 推動比特幣政策及在台應用

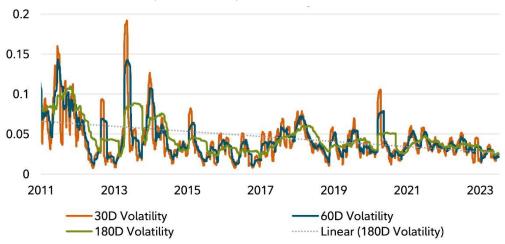
一、 比特幣對台灣的四大重要性

自 2008 年比特幣發明者中本聰 (Satoshi Nakamoto) 發布《比特幣:一種對等式的電子現金系統》(Bitcoin: A Peer-to-Peer Electronic Cash System) 以後,比特幣逐漸映入民眾眼簾,如今比特幣的存在是家喻戶曉,更受到我國中央銀行的多方關注,並比較比特幣與黃金之異同¹。本協會首要方向即為推動比特幣在台之應用,幫助各界理解比特幣對於台灣四大重要性。

(一). 比特幣價值儲存對於台灣的重要性

比特幣被設計成數位世界的的價值儲存工具,資產安全仰賴密碼學與挖 礦演算法的保護,風險因子與法定貨幣及實體黃金截然不同。經過十五年的 穩定運作,比特幣網路已證明其強韌性不容忽視。

台灣作為海島的文化開放性、對新科技的包容性、以及獨特的地緣政治挑戰,都顯示台灣有極大的優勢與需求,採納比特幣作為多元的價值儲存選項。富達投資在研究報告中指出,比特幣波動性隨著時間下降,鞏固其作為價值儲存工具的定位²(如圖一所示)。



圖一:比特幣波動性圖表

比特幣又稱為「數位黃金」,今年(2023)一份研究加密貨幣的網路效應和價值儲存的研究指出,比特幣和黃金的相關性係數來到 0.6,代表比特幣和黃金產生相關性³,如下圖二所示。因此,不論個人、法人、政府,若將

https://ec.ltn.com.tw/article/breakingnews/4521875 (最後瀏覽日:2023 年 12 月 20 日)

¹比特幣等同「數位黃金」? 央行:無法與黃金相提並論,

² Fidelity, Revisiting Persistent Bitcoin Criticisms, *available at* https://www.fidelitydigitalassets.com/research-and-insights/revisiting-persistent-bitcoin-criticisms, last visited 12/18/2023.

³ ScienceDirect, Network effects and store-of-value features in the cryptocurrency market, *available at* https://www.sciencedirect.com/science/article/pii/S0160791X23001252?ref=pdf_download&fr=RR-2&rr=8363e4600b3af1cc, last visited 12/16/2023.



將比特幣置於資產配置中,能獲得和黃金一樣的避險效果,也有助於增加整體抗風險韌性⁴。

Table 8. Optimal asset allocation based on tail risk measures (three-asset portfolios)

Panel A: Tail risk defined by the Value at Risk (VaR)

		<i>p</i> =	= 95%				p = 99%					p = 99.9%					
	Weights	VaR	E(r)	TP ratio	DP ratio	Weights	VaR	E(r)	TP ratio	DP ratio	Weights	VaR	E(r)	TP ratio	DP ratio		
EU/BTC/Gold	(64,15,21)	3.52%	0.29%	0.247	0.384	(55,17,28)	5.92%	0.31%	0.304	0.397	(59,19,22)	8.86%	0.35%	0.356	0.407		
US/BTC/Gold	(75,11,14)	3.24%	0.32%	0.250	0.366	(62,16,22)	5.75%	0.37%	0.473	0.430	(53,19,28)	8.57%	0.44%	0.480	0.405		

Panel B: Tail risk defined by the Expected Shortfall (ES)

		<i>p</i> =	= 95%		p = 99%					p = 99.9%					
	Weights	ES	E(r)	TP ratio	DP ratio	Weights	ES	E(r)	TP ratio	DP ratio	Weights	ES	E(r)	TP ratio	DP ratio
EU/BTC/Gold	(62,15,23)	4.77%	0.29%	0.253	0.395	(61,20,19)	7.22%	0.37%	0.318	0.410	(53,25,22)	10.20%	0.39%	0.340	0.422
US/BTC/Gold	(65,13,22)	4.52%	0.33%	0.384	0.387	(70,19,11)	7.17%	0.44%	0.519	0.410	(53,26,21)	9.85%	0.51%	0.582	0.445

圖二:基於極端風險之最佳資產配置

綜合上述,各國政府包含台灣,應考慮比特幣的價值儲存特性,及作為儲備之可能。同時台灣黃金儲備數量龐大(423.6 噸),且集中於單一位置,具有戰爭風險,應考慮如何透過比特幣提供戰爭保險⁵。

(二). 比特幣推動再生能源發展的可能性

比特幣可作為再生能源產業的激勵機制。利用比特幣挖礦可儲存電力的 特性,將再生能源發展前期勢必浪費的能源轉換爲資產或電力儲存,彌補再 生能源發展的弱勢,可望與台灣能源政策起互補作用。

比特幣挖礦有助於推動再生能源之使用、發展,台灣為發展再生能源(包括離岸風電),應進一步探索相關可能。風險管理機構(IRM)指出,比特幣挖礦於 2022Q3 達到約 60%的可再生能源組合,且挖礦有助於促進太陽能及風力發電採用、地熱、水力、和海水溫差發電之發展⁶。再生能源發展期勢必會遭遇電網不穩定之情形,這時能透過礦機能迅速開關及其可中斷的特性⁷,適度地穩定電網及達到所謂削峰填谷的作用⁸。

此外,我國持續推動離岸風電建設,其潛力廠址大部分皆座落於台灣海峽⁹。又因台灣海峽為我國重點戰略地位,若能廣大鋪設離岸風場於台灣海

⁴ SSRN, Is Bitcoin the New Digital Gold? Evidence From Extreme Price Movements in Financial Markets, *available at* https://papers.srm.com/sol3/papers.cfm?abstract_id=3245571, last visited 12/17/2023.

⁵ 數位時代,比特幣全球賽局開始-台灣的戰爭保險?,2022年05月06日,

https://www.bnext.com.tw/article/69008/bitcoin-wide-shell-tw-insur,最後瀏覽日:2023/12/21

⁶ IRM., Bitcoin and the Energy Transition: From Risk to Opportunity, *available at* https://www.theirm.org/news/bitcoin-and-the-energy-transition-from-risk-to-opportunity/, last visited 12/18/2023.

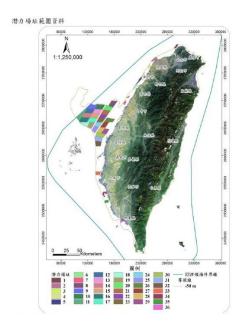
⁷ MDPI, Bitcoin's Carbon Footprint Revisited: Proof of Work Mining for Renewable Energy Expansion, *available at* https://www.mdpi.com/2078-1547/14/3/35, last visited 12/14/2023.

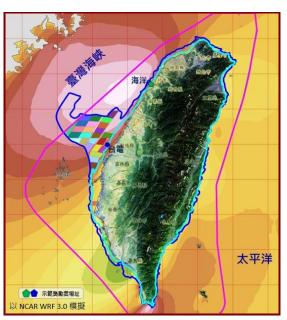
⁸ ACS Publications, Renewable Energy Transition Facilitated by Bitcoin, *available at* https://pubs.acs.org/doi/full/10.1021/acssuschemeng.2c06077, last visited 12/17/2023.

⁹ 風力發電單一服務窗口,潛力場址,https://www.twtpo.org.tw/offshore_show.aspx?id=963,最後瀏覽日:2023/12/21



峽,或能在推廣比特幣及再生能源發展時一併發展潛在軍用設施及提升國防 海防實力(如下圖所示)。





圖三&圖四:我國離岸風場潛力場址

(三). 比特幣閃電網路與推動普惠金融

比特幣是全球無國界的價值網路,而建立在其上的閃電網路(Lightning Network)是最成功的微型支付工具。相較台灣本地的支付工具,閃電網路更具全球化與低資金門檻的優勢。

根據數據顯示,2021 年跨境匯款之平均匯款費用達 6.4%¹⁰。使用閃電網路,大眾可以迅速地以近 0 成本進行匯款,尤其在我國引入外籍移工的政策下,移工之薪水能在無延遲下經由閃電網路立即轉帳至位於他國的家屬,無需等待結算。閃電網路也可跟 IoT、M2M 等科技結合,能處理例如及時支付能源帳單、扣繳高速公路過路費等微支付手段,提高金融效率¹¹

普華永道在其針對薩爾瓦多比特幣法律的報告中指出,在薩爾瓦多除採用比特幣為法定貨幣外,更導入閃電網路提升普惠金融,該國平均每秒處理65000 次交易及每天 2 百萬的僑匯資金匯入。此外,幾乎全國一半人口使用了薩爾瓦多官方的比特幣錢包;同時薩爾瓦多有銀行帳戶的公民大約只佔30%。12相較之下,在我國行動支付政策推動數年後,才終於在 2022 年達到

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¹⁰ MDPI, A Review of the Lightning Network's Evolution: Unraveling Its Present State and the Emergence of Disruptive Digital Business Models, *available at* https://www.mdpi.com/0718-1876/18/3/68, last visited 12/15/2023.

¹¹ IEEE, Enabling Micro-payments on IoT Devices using Bitcoin Lightning Network, *available at* https://ieeexplore.ieee.org/abstract/document/9461096, last visited 12/17/2023.

¹² PwC, El Salvador's law: a meaningful test for Bitcoin, available at https://www.pwc.com/gx/en/financial-



近7成普及率¹³,閃電網路有潛力成為台灣多元支付方式之一環,並擴大普惠金融效益。

(四). 比特幣對於科技創新的助益

除了閃電網路的微型支付功能,也有更多潛在應用,可以被建立在比特 幣網路上。及早參與這個最被國際認可的價值網路,將為台灣帶來更多金融 創新機會。

比特幣運用之區塊鏈技術引領科技創新,例如香港金融管理局就利用區塊鏈技術推出綠色債券,而世界銀行研議透過基礎設施代幣化,提高處理效率並增加透明度¹⁴¹⁵。

比特幣錢包 Strike 將現今金融系統和比特幣結合,創造一種基於比特幣的新型銀行,其能夠讓用戶在全球範圍內即時且近 0 成本發送比特幣和法幣。其系統還支援不同法幣間兌換,意旨用戶 A 能發送美元給欲接收歐元的用戶 B,其中的換匯將透過比特幣市場及閃電網路處理。透過 Strike,人人皆可在無時無刻以近 0 成本結算任何交易而不需透過傳統金融系統 16。

services/pdf/el-salvadors-law-a-meaningful-test-for-bitcoin.pdf, last visited:12/21/2023.

¹³ MIC 資策會產業情報研究所,【行動支付大調查二】用戶款數集中度連年下降 36-45 歲集中度最低「藥局藥妝店、自營非連鎖餐飲」場域滲透率成長逾一成,2023 年 05 月 03 日,

https://mic.iii.org.tw/news.aspx?id=639, 最後瀏覽日: 2023/12/21。

¹⁴ 香港金融管理局,香港債券市場代幣化,2023年08月24日,https://www.hkma.gov.hk/chi/news-and-media/press-releases/2023/08/20230824-3/,最後瀏覽日:2023/12/17。

¹⁵ World Bank, Infrastructure Tokenization, *available at* https://documents1.worldbank.org/curated/en/099200503082329768/pdf/P17425408f3aa00580a2620810813ed037 0.pdf. last visited 12/17/2023.

¹⁶ Vacuumlabs, Strike: Disrupting the remittance payments via Bitcoin's Lightning Network, *available at* https://vacuumlabs.com/strike-disrupting-remittance-payments/, last visited 12/21/2023.



第二章 推動虛擬資產在台監理及應用

一、 虛擬資產法制在台灣的發展

在當今的金融生態系統中,虛擬資產已成為一個不可忽視的組成部分。 除了廣為人知的比特幣之外,近年來,多種虛擬資產的市值和影響力均顯著 增長。這些資產的多樣性不僅為投資者提供了更廣泛的選擇,也反映了這一 領域的快速發展和創新能力。

在台灣,虛擬資產市場正逐步擴大,吸引了越來越多的投資者參與。然而,隨著市場的成長,對於有效的監管框架的需求也日益迫切。目前,台灣在虛擬資產的監管方面主要集中於防制洗錢,並由金融監督管理委員會(金管會)制定了相關的指導原則¹⁷。然而,這些措施在保護投資者權益和促進市場健康發展方面仍顯不足。缺乏明確和全面的監管政策,不僅對投資者構成風險,也給虛擬資產業者帶來了不確定性。

(一). 洗錢防制法制

洗錢防制在全球金融體系中佔有重要地位,在具有高度匿名性的虛擬資產市場中更是如此。隨著加密資產的普及,其匿名性和跨國交易的便利性使得洗錢和資助恐怖主義的風險更加突出,因此,國際社會及各國政府也積極加強對此領域的監管及審查。2015年6月,國際反洗錢組織 FATF 針對虛擬資產發布洗錢防制指引,闡明洗錢防制規範應如何適用於加密貨幣,而台灣作為一個積極參與國際金融市場的國家,也在2018年年底修正洗錢防制法第5條,正式將虛擬通貨平台及交易業務之事業納入規範¹⁸,奠定加密貨幣洗錢防制的法源基礎,行政院也於2021年4月依洗錢防制法的授權,明定虛擬通貨定義,指定虛擬通貨事業範圍¹⁹。金管會也開始積極敦促虛擬資產業者應於完成洗錢防制法令遵循聲明後,始能營業。若業者違反規範,金管會得依洗錢防制法規定處業者最高新台幣1000萬元之罰鍰。

隨後臺灣又在 2021 年 6 月正式公布「虛擬通貨平台及交易業務事業防制洗錢及打擊資恐辦法」,這些變更使得相關業者必須遵守更嚴格的規定,如實施客戶身份確認程序、監控和報告可疑交易行為等,從而提高了整體金融系統的透明度和安全性。

然而,我國目前針對虛擬資產業者的監管法規主要還是在洗錢防制法制之層面,因此對於投資人保護以及促進產業發展方面仍有所不足。

 $^{^{17}}$ 金融監督管理委員會,發布金融監督管理委員會「管理虛擬資產平台及交易業務事業(VAS P)指導原則」,https://www.fsc.gov.tw/ch/home.jsp?id=96&parentpath=0,2&mcustomize=news_vie w.jsp&dataserno=202309260005&dtable=News(最後瀏覽日:2023 年 12 月 22 日)

¹⁸ 洗錢防制法第5條第2項。

¹⁹ 行政院 110 年 4 月 7 日院臺法字第 1100167722 號令。



(二). 行政指導

在經過公聽會及本協會參與提供多方意見後,金管會於 2023 年 9 月發布「管理虛擬資產平台及交易業務事業 (VASP) 指導原則」(以下簡稱指導原則),這是台灣在加強對加密貨幣及相關交易平台監管方面的一項重要進展。這份指導原則的主要目的是為了加強對虛擬資產平台的管理,以保護消費者和投資者的權益,同時提升市場的透明度和安全性。

指導原則中明確指出,虛擬資產的發行者需要在其網站公告所編制之白皮書,虛擬資產交易平台業者並應公告該網站之連結。此外,指導原則要求平台應將客戶的資產與自身的資產分開保管,以避免利益衝突和保障客戶資產的安全,且平台就所保管之客戶資產應至少每年委任會計師出具報告並公告²⁰。指導原則還強調了交易規則的公平性和透明度,要求平台公開交易規則並確保市場的公正性,以及將虛擬資產成交資訊即時接露並提供予客戶²¹。此外,平台還需要建立完善的內部規則和系統,包括資訊安全管理和消費者申訴處理機制,以提升營運效率和服務品質²²。金管會也對 VASP 業者進行了一些經營業務的限制,如禁止發行穩定幣²³和經營以虛擬資產為標的的衍生性金融商品交易業務,以及未經許可不得經營具有證券性質的虛擬資產業務²⁴。

(三). 商業團體業別暨同業公會成立

在本協會過去三年的努力下,我國經濟部總算於 2023 年 8 月預告新增「虛擬通貨商業」團體業別,目的在於使虛擬通貨平台及交易業務事項的業者能落實法令遵循及自律規範²⁵。這項新設的業別涵蓋了虛擬通貨與法定貨幣或虛擬通貨之間的交換、虛擬通貨的移轉、保管或管理虛擬通貨服務及參與及提供虛擬通貨發行或銷售的相關服務。

通過成立同業公會,鼓勵業者共同訂定行業標準和自律規範,以增強行業的自律性和可信度,減少行業受到的負面看法和不信任。這一措施有助於提升整個產業的規範性和透明度,並為業者間的合作提供平台

有鑑於此,本協會將持續推動虛擬資產在台監理及應用,同時鼓勵創新

²⁰ 「管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 5 點

²¹ 「管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 6 點

²² 「管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 8 點

^{23 「}管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 3 點

²⁴ 「管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 12 點

查蘋新聞網,經濟部為商業團體標準新增「虛擬通貨商業」業別,三個重點一次了解,2023年8月,
 https://tw.nextapple.com/blockchain/20230818/4833B42D6F6B884DFC0DD306B0B81F37
 (最後瀏覽日:2023年12月22日)



和技術發展,以支持虛擬資產的多元應用,並促進產業增長。

二、 政策研擬及研究工作

隨著虛擬通貨市場的快速發展,建立一個專業、有影響力的同業公會的 重要性也隨之上升。因此,即將成立的虛擬通貨商業同業公會將扮演著關鍵 的角色。為了更好地實現本協會的宗旨,並有效地支持即將成立的虛擬通貨 商業同業公會,我們計劃將現有組織加入專注於政策研擬和法規研究專案小 組,未來我們將與同業公會大量合作,我們將更加專注在政策研擬與倡議以 及法規研究與分析兩大領域。

同時,本協會過去就虛擬資產資訊安全展開多方工作(下簡稱資安標準), 未來本協會可協助將資安標準等過去經驗及成果,導入及傳承予未來同業公 會,自我提升產業資安標準要求。有關本協會進行之資安標準制度建構,詳 述如下:

(一). 虛擬通貨產業資訊安全標準要點

自虛擬貨幣交易所誕生以來,交易所受駭客入侵導致用戶資產受到危害時有所聞,更可能因此導致交易所倒閉,為保障台灣用戶虛擬資產安全,本協會經偕同產業專家多方研究下,訂定統一之虛擬通貨資安的資安流程,正式發布《虛擬通貨產業資訊安全標準要點》,確保公司內部稽核及內部控制之制定及施行,導入相關資訊安全措施,也利於各界及消費者獲得資訊,作為資產交易安全評估及參考選項,本要點由本協會數家團體成員率先導入、遵循。

(二). 資訊安全委員會

為審查交易所業者遞交之資安聲明,本協會已於2022年11月4日成立「VASP資訊安全標準委員會」,作為獨立委員會,決定未來【資訊安全管理政策聲明】所需文件、以及審核其他業者辦理資安聲明的提交文件,VASP資訊安全標準委員會委員目前共計10人,分別由律師、資安學者、區塊鏈技術專家及業者代表共同組成。

(三). 資訊安全標準要點之落實

我們深知在快速發展的虛擬通貨行業中,資訊安全與用戶資產保護的重要性。因此,我們制定了一系列全面的資安標準要點,以指導業者實施有效的資訊安全管理。這份要點涵蓋了從制定資訊安全政策、建立資安管理組織,到風險評估和處理等方面。特別強調的是,對於虛擬通貨資產的安全管理,我們建議會員採用多層次的保護措施,包括但不限於熱錢包和冷錢包的安全架構設計。



此外,系統開發的安全性也是我們關注的重點,我們鼓勵會員在開發過程中融入安全要素,使用加密技術來保護數據和交易。人員安全管理與教育也是不可忽視的一環,我們提倡定期對員工進行資安培訓和意識提升。為了應對可能的安全事故,我們還設立了緊急事件管理程序,確保能夠迅速且有效地應對各種安全挑戰。通過這些措施,我們的目標是建立一個更加安全、可靠的虛擬通貨交易環境,為整個產業的可持續發展提供堅實的基礎。

(四). 兩家完成資訊安全管理政策聲明之業者

為鼓勵本協會團體會員及國內指標虛擬通貨平台業者進行資安的注意及投入,本協會將協助辦理【資訊安全管理政策聲明】,完成資訊安全管理政策聲明之業者,本協會統一公告於協會官網,以利各界及消費者獲得相關資訊,作為資產交易選項。





目前在本協會與資安委員會與業者三方共同努力下,已有兩家交易所完成聲明,第一家業者 MaiCoin Asset Exchange 數位資產交易所在 2023 年 4 月通過審核,第二家通過的業者為幣託集團,在 2023 年 11 月通過審核。未來協會也會持續輔導更多虛擬資產平台業者導入資訊安全標準並完成資安聲明。



第三章 推動區塊鏈技術在台應用及國際交流

台灣擁有許多頂尖的軟體技術人才,近年在台灣也出現許多業者致力於提供區塊鏈技術之服務。區塊鏈,這一虛擬資產的底層技術,不僅為資產數位化提供了堅實的底層支撐,也為整個虛擬經濟生態系注入了活力。本協會第三項方針便是促進區塊鏈技術在台灣的應用和推廣,並致力於為相關行業提供全方位的支持與協助。

在國際舞台上,多個國家已經在虛擬資產的監管與發展方面領先於台灣。這些國家的經驗和成就對於我們在法規調整和產業成長的道路上提供了寶貴的借鏡。因此,本協會未來將積極推動與各國之間的交流合作,期望透過國際經驗的共享,為台灣的產業發展和法規監管帶來深遠的啟示。接下來,我們將詳細介紹協會預計重點發展的方向。

一、 邀請國際區塊鏈技術團隊到訪台灣、落地

為了進一步推動台灣在全球區塊鏈領域的發展,本協會致力於加強與國際專業團隊的合作與交流。我們深知,將國際頂尖的區塊鏈技術團隊引進台灣,不僅能夠加速我們的技術創新與產業發展,同時也是促進台灣與國際社會緊密連接的關鍵一環。

為此,本協會已經發布了一套詳盡的「2023 台灣區塊鏈產業生態地圖」,這不僅是一份細緻的台灣區塊鏈產業概覽,更是一個強大的資源整合工具。透過區塊鏈地圖,我們能夠精準地識別出台灣在區塊鏈各領域中的關鍵業者,從而更深入地理解這一行業的動態與需求。這將有助於我們更有效地與國際團隊進行對接,促進知識與技術的交流。

未來本協會將舉辦國際參訪和交流活動,旨在邀請全球領先的區塊鏈技術團隊來台參訪,甚至考慮在台設立分支或合作機構。透過這些活動,我們希望能夠鼓勵國際專家與台灣的區塊鏈愛好者及業者進行深入交流,共同探討未來的合作可能性。這不僅會加速台灣區塊鏈技術的發展,也將有助於我們更快與國際接軌,進而促進整體產業的升級與創新。

透過積極的國際合作與交流,我們有望將台灣打造成為一個全球區塊鏈技術的重要樞紐,並為台灣在這一前沿技術領域中確立更加明確和強大的地位。



二、 協會年度目標

(一). 台日國際交流參訪

於 2023 年 11 月,我們已成功加入日本加密資產商業協會(Japan Cryptocurrency Business Association, JCBA),成為該組織的團體會員。JCBA 自 2016 年成立以來,一直致力於支援公共區塊鏈和 Web 3.0 生態系統的利害關係人,作為一會員制組織,JCBA 的宗旨是改善與加密資產相關的業務環境,並集結會員企業在技術、稅務、會計、法律及商業等領域的知識,進行研究、提出政策建議,並致力於人才培養。



過去一年,本協會持續與日本頂尖產業代表進行交流,包括日本龍頭合規虛擬資產交易所 Coincheck、日本區塊鏈媒體龍頭 CoinPost 等進行深入交流。這不僅是雙方技術與經驗分享的寶貴機會,更為我們協會與台灣多家交易所之間建立溝通橋樑,開啟了更廣泛的合作可能性也為探索台日區塊鏈產業的合作契機和未來潛在合作方向奠定了基礎。

未來,本協會將繼續致力於加強與日本在區塊鏈領域的交流與合作。透 過積極的國際合作,我們期望不僅能夠推動台灣在全球區塊鏈產業中的地位 提升,同時也能夠為台灣的技術創新和產業發展注入更多國際視野和資源。

(二). 2024 台灣區塊鏈產業地圖繪製

隨著區塊鏈技術的日趨成熟與廣泛應用,對產業生態的全面理解變得尤為重要。本協會與第一屆合作夥伴 None Capital、Web3+、AppWorks 與各大媒體夥伴精心規畫 2023 台灣區塊鏈產業地圖/關鍵報告,並於官方網站公開(https://map.bcda.tw/),以便讓公眾參考。該地圖涵蓋各領域的企業、團隊,



從交易平台到服務供應商,從新創公司到成熟企業,同時產業地圖與第二屆 TBW(Taipei Blockchain Week)合作,發布產業地圖手冊(英文版),這一系列規劃,使國際業者/機構能夠深入洞悉台灣虛擬資產產業的多元化與蓬勃發展。

本協會之產業地圖不僅是業界導航的工具,更是一個促進業內外交流、 合作的平台。它提供了一個清晰的行業布局,反映了台灣區塊鏈產業的當前 狀態,並凸顯了領先企業和創新者的貢獻。





為了持續推動這一發展動力,本協會計劃擴大產業合作,並預計將規劃 深入與更新的第二屆 2024 產業地圖。這將會包含更廣泛的市場參與者,並 納入最新的市場趨勢與技術革新。我們的目標是提供一個更加詳細、更新、 與時俱進的資訊來源,以輔助投資者、研究人員以及國際團隊看見台灣,壯 大落地台灣!



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Bitcoin and Digital Assets Development Whitepaper



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Preface

Taiwan is home to top-tier software talents who have made significant contributions to the global technology industry. In recent years, the digital assets sector and its applications within Taiwan have garnered repeated international media coverage. However, the regulations governing digital assets in Taiwan are still in their early stages. The current legal and regulatory framework is somewhat ambiguous, posing potential challenges to the development of the digital assets industry in Taiwan. To proactively address and improve this situation, our association was established.

Since our inception in 2021, the Bitcoin and Cryptocurrency Development Association in Taiwan has been dedicated to raising awareness about proper regulations related to digital assets. Our mission is to foster the development of digital assets and their applications, contributing to the establishment of a robust and healthy digital asset environment in Taiwan. This, in turn, promotes related industries and contributes to overall economic development. Among our goals is the establishment of the Virtual Asset Service Providers (VASP) Association.

Over the past three years, the association has consistently collaborated with various sectors in Taiwan to promote activities and maintain ongoing communication with public sectors and government agencies. In September 2023, we achieved a significant milestone by successfully completing the application for the commercial category work of virtual currency. The establishment of the Taiwan Virtual Currency Industry Association is imminent. Following the completion of our association's initial milestones, we are committed to advancing our mission and supporting the Taiwan Virtual Currency Industry Association. To achieve this, we have consulted with various experts and scholars to formally propose the 'Bitcoin and Digital Assets Development White Paper.' This document outlines our specific action plans for promoting three major policies in the future, for public reference:

Over the past three years, the association has continuously collaborated with various sectors in Taiwan to promote activities and has maintained ongoing communication with public sectors and government agencies. In September 2023, we successfully completed the application for the commercial category work of virtual currency, and the Taiwan Virtual Currency Industry Association is about to be established. Following the completion of our association's initial milestones, we are committed to furthering our mission and supporting the Taiwan Virtual Currency Industry Association. To this end, we have consulted with various experts and scholars to formally propose the 'Bitcoin and Digital Assets Development White Paper'. This



document outlines our specific action plans for promoting three major policies in the future, for public reference:

- 1. The Four Major Significances of Bitcoin for Taiwan;
- 2. The Promotion of Supervision and Application of Digital Assets in Taiwan;
- 3. The Promotion of Blockchain Technology Applications and International Exchange in Taiwan.



Chapter 1: The Four Major Significances of Bitcoin for Taiwan

I. The Four Major Significances of Bitcoin for Taiwan

Since Satoshi Nakamoto published the seminal whitepaper "Bitcoin: A Peer-to-Peer Electronic Cash System" in 2008, Bitcoin has gradually entered the public awareness and is now well-known. It has attracted considerable attention from our central bank, which has analyzed the similarities and differences between Bitcoin and gold.²⁶ The primary direction of our association is to promote the adoption of Bitcoin in Taiwan, helping all sectors understand the four major significances of Bitcoin for Taiwan.

i. The Importance of Bitcoin as a Store of Value for Taiwan

Bitcoin is designed as a store of value for the digital world, with asset security dependent on cryptography and mining algorithms, making its risk factors fundamentally different from those of fiat currencies and physical gold. After operating stably for fifteen years, the Bitcoin network has proven its resilience, a fact that cannot be overlooked.

Taiwan's openness to cultural diversity, its adaptability towards new technologies, and its unique geopolitical challenges all demonstrate that Taiwan has significant advantages and a need a Bitcoin strategy, mainly to adopt Bitcoin as a diversified store of value option. Fidelity Investments noted in a research report that Bitcoin's volatility has decreased over time, solidifying its position as a store of value tool (as shown in Figure 1).²⁷

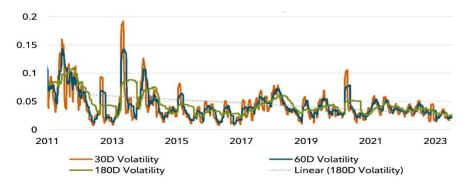


Figure 1: Bitcoin Volatility Chart

https://ec.ltn.com.tw/article/breakingnews/4521875 (最後瀏覽日:2023 年 12 月 20 日)

²⁶ 比特幣等同「數位黃金」? 央行:無法與黃金相提並論,

²⁷ Fidelity, Revisiting Persistent Bitcoin Criticisms, *available at* https://www.fidelitydigitalassets.com/research-and-insights/revisiting-persistent-bitcoin-criticisms, last visited 12/18/2023.



Bitcoin, often referred to as "digital gold", has been highlighted in a study from 2023 on the network effects and store of value of cryptocurrencies, which pointed out that the correlation coefficient between Bitcoin and gold has reached 0.6. This indicates a correlation between Bitcoin and gold²⁸, as shown in the following Figure 2. Therefore, whether for individuals, corporations, or governments, including Bitcoin in asset allocation can provide a hedging effect similar to that of gold, thereby enhancing overall risk-reward profile.²⁹

Table 8. Optimal asset allocation based on tail risk measures (three-asset portfolios)
Panel A: Tail risk defined by the Value at Risk (VaR)

Weights VaR E(r) TP ratio DP ratio Weights VaR E(r) TP ratio TP ratio Praction TP ratio DP ratio Weights VaR E(r) EU/BTC/Gold (64,15,21) 3.52% 0.29% 0.247 0.384 (55,17,28) 5.92% 0.31% 0.304 0.397 (59,19,22) 8.86% 0.35%	TP DP						- ///0	p =							
EU/BTC/Gold (64,15,21) 3.52% 0.29% 0.247 0.384 (55,17,28) 5.92% 0.31% 0.304 0.397 (59,19,22) 8.86% 0.35%	ratio ratio		VaR	Weights		TP ratio	E(r)	VaR	Weights			E(r)	VaR	Weights	
	0.356 0.407	0.35%	8.86%	(59,19,22)	0.397	0.304	0.31%	5.92%	(55,17,28)	0.384	0.247	0.29%	3.52%	(64,15,21)	EU/BTC/Gold
$ \begin{tabular}{lllllllllllllllllllllllllllllllllll$	0.480 0.405	0.44%	8.57%	(53,19,28)	0.430	0.473	0.37%	5.75%	(62,16,22)	0.366	0.250	0.32%	3.24%	(75,11,14)	US/BTC/Gold

Panel B: Tail risk defined by the Expected Shortfall (ES)

		<i>p</i> =	= 95%				<i>p</i> =	99%			p = 99.9%				
	Weights	ES	E(r)	TP ratio	DP ratio	Weights	ES	E(r)	TP ratio	DP ratio	Weights	ES	E(r)	TP ratio	DP ratio
EU/BTC/Gold	(62,15,23)	4.77%	0.29%	0.253	0.395	(61,20,19)	7.22%	0.37%	0.318	0.410	(53,25,22)	10.20%	0.39%	0.340	0.422
US/BTC/Gold	(65,13,22)	4.52%	0.33%	0.384	0.387	(70,19,11)	7.17%	0.44%	0.519	0.410	(53,26,21)	9.85%	0.51%	0.582	0.445

Figure 2: Optimal Asset Allocation Based on Extreme Risk

In summary, governments worldwide, including Taiwan, should consider the characteristics of Bitcoin as a store of value and its potential as a reserve asset. Given that Taiwan has a substantial gold reserve (423.6 tons) concentrated in a single location, which poses a risk in the event of war, it should consider how Bitcoin could provide an additional insurance against war.³⁰

ii. The Potential of Bitcoin to Promote the Development of Renewable Energy

Bitcoin can serve as an incentive mechanism for the renewable energy industry. Utilizing the characteristics of Bitcoin mining to store electricity and balance the grid, the energy that would inevitably be wasted in the early stages of renewable energy development can be converted into a monetary asset or stored as electricity. This can compensate for the weaknesses in the development of renewable energy and is

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²⁸ ScienceDirect, Network effects and store-of-value features in the cryptocurrency market, *available at* https://www.sciencedirect.com/science/article/pii/S0160791X23001252?ref=pdf_download&fr=RR-2&rr=8363e4600b3af1cc, last visited 12/16/2023.

²⁹ SSRN, Is Bitcoin the New Digital Gold? Evidence From Extreme Price Movements in Financial Markets, *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3245571, last visited 12/17/2023.

³⁰ 數位時代,比特幣全球賽局開始-台灣的戰爭保險?,2022年05月06日, https://www.bnext.com.tw/article/69008/bitcoin-wide-shell-tw-insur,最後瀏覽日:2023/12/21



expected to effectively complement Taiwan's energy policy.

Bitcoin mining contributes to the promotion and development of renewable energy usage. Taiwan, aiming to develop renewable energy sources, including offshore wind power, should further explore such possibilities. The Institute of Risk Management (IRM) noted that, as of Q3 2022, approximately 60% of Bitcoin mining was powered by a mix of renewable energy. Additionally, mining helps foster the adoption of solar and wind power, as well as the development of geothermal, hydroelectric, and ocean thermal energy generation.³¹ The development phase of renewable energy inevitably encounters instability in the power grid.³² At this juncture, the ability to rapidly switch mining operations on and off and their interruptible nature can help stabilize the grid and achieve the effect of peak shaving and valley filling.³³

Moreover, our country continues to promote the construction of offshore wind farms, most of which are potentially located in the Taiwan Strait.³⁴ Given the Taiwan Strait's strategic importance to our national defense, the widespread installation of offshore wind farms in the Taiwan Strait could concurrently support the promotion of Bitcoin and the development of renewable energy, while also potentially enhancing military facilities and strengthening national maritime defense capabilities (as shown in the following figure).

³¹ IRM., Bitcoin and the Energy Transition: From Risk to Opportunity, *available at* https://www.theirm.org/news/bitcoin-and-the-energy-transition-from-risk-to-opportunity/, last visited 12/18/2023.

MDPI, Bitcoin's Carbon Footprint Revisited: Proof of Work Mining for Renewable Energy Expansion, available at https://www.mdpi.com/2078-1547/14/3/35, last visited 12/14/2023.

³³ ACS Publications, Renewable Energy Transition Facilitated by Bitcoin, *available at* https://pubs.acs.org/doi/full/10.1021/acssuschemeng.2c06077, last visited 12/17/2023.

³⁴ 風力發電單一服務窗口,潛力場址,https://www.twtpo.org.tw/offshore_show.aspx?id=963,最後瀏覽日:2023/12/21



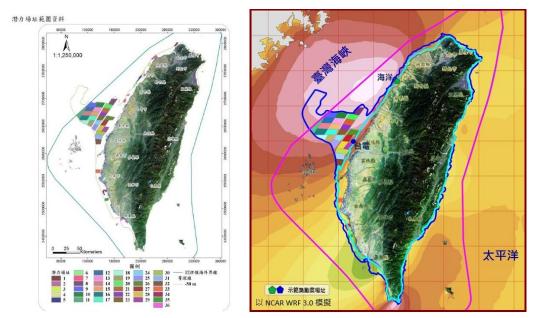


Figure 3 & Figure 4:
Potential Sites for Offshore Wind Farms in Our Country

iii. Bitcoin Lightning Network and Promoting Financial Inclusion

Bitcoin is a global, borderless monetary network, and the Lightning Network built upon it is one of the most successful micropayment tools. Compared to the local payment tools in Taiwan, the Lightning Network offers advantages in globalization and lower capital thresholds.

According to the data, the average cost of cross-border remittances reached 6.4% in 2021.³⁵ Using the Lightning Network, the public can reduce remittance costs to nearly zero quickly. Especially under the policy of introducing foreign migrant workers into our country, the salaries of migrant workers can be transferred immediately to their families in other countries via the Lightning Network without delay or the need for time-consuming settlement. The Lightning Network can also be integrated with technologies like IoT and M2M, enabling micropayment methods such as real-time payment of energy bills or deduction of highway toll fees, thereby enhancing financial efficiency.³⁶

In its report on El Salvador's Bitcoin legislation, PwC pointed out that, in addition to adopting Bitcoin as legal tender, the introduction of the Lightning Network in El Salvador has effectively enhanced financial inclusion, processing an

MDPI, A Review of the Lightning Network's Evolution: Unraveling Its Present State and the Emergence of Disruptive Digital Business Models, *available at* https://www.mdpi.com/0718-1876/18/3/68, last visited 12/15/2023.

³⁶ IEEE, Enabling Micro-payments on IoT Devices using Bitcoin Lightning Network, *available at* https://ieeexplore.ieee.org/abstract/document/9461096, last visited 12/17/2023.



average of 65,000 transactions per second and two million dollars in remittances daily. Furthermore, nearly half of the country's population has used El Salvador's official Bitcoin wallet; meanwhile, only about 30% of Salvadorans have bank accounts. ³⁷ By comparison, after several years of promoting mobile payment policies, Taiwan finally reached a mobile payment penetration rate of nearly 70% in 2022. ³⁸ The Lightning Network has the potential to become one of Taiwan's diverse payment methods and expand financial inclusion.

iv. The Benefits of Bitcoin for Technological Innovation

Beyond the micropayment capabilities of the Lightning Network, there are many more potential applications that can be built on the Bitcoin network. Early participation in this internationally recognized monetary network will bring Taiwan more opportunities for financial innovation.

The blockchain technology utilized by Bitcoin is one of the leading technological innovations. For example, the Hong Kong Monetary Authority has launched green bonds using blockchain technology, and the World Bank is exploring infrastructure tokenization to enhance processing efficiency and increase transparency.³⁹⁴⁰

The Bitcoin wallet Strike merges the current financial system with Bitcoin to create a novel type of banking based on Bitcoin. It enables users to send Bitcoin and fiat currencies instantly and with near zero cost globally. Additionally, the system supports exchanges between different fiat currencies, allowing User A to send US dollars to User B who wishes to receive euros with the currency exchange facilitated through the Bitcoin market and the Lightning Network. Through Strike, everyone can settle any transaction at virtually no cost at any time, thereby bypassing the traditional financial rails.⁴¹

³⁷ PwC, El Salvador's law: a meaningful test for Bitcoin, *available at* https://www.pwc.com/gx/en/financial-services/pdf/el-salvadors-law-a-meaningful-test-for-bitcoin.pdf, last visited:12/21/2023.

³⁸ MIC 資策會產業情報研究所,【行動支付大調查二】用戶款數集中度連年下降 36-45 歲集中度最低「藥局藥妝店、自營非連鎖餐飲」場域滲透率成長逾一成,2023 年 05 月 03 日, https://mic.iii.org.tw/news.aspx?id=639,最後瀏覽日:2023/12/21。

³⁹ 香港金融管理局,香港債券市場代幣化,2023 年 08 月 24 日,https://www.hkma.gov.hk/chi/news-and-media/press-releases/2023/08/20230824-3/,最後瀏覽日:2023/12/17。

World Bank, Infrastructure Tokenization, *available at* https://documents1.worldbank.org/curated/en/099200503082329768/pdf/P17425408f3aa00580a2620810813ed037 0.pdf, last visited 12/17/2023.

⁴¹ Vacuumlabs, Strike: Disrupting the remittance payments via Bitcoin's Lightning Network, *available at* https://vacuumlabs.com/strike-disrupting-remittance-payments/, last visited 12/21/2023.



Chapter 2: Promoting the Regulation and Application of Digital Assets in Taiwan

I. Development of Digital Assets Legislation in Taiwan

In today's financial ecosystem, digital assets have taken an increasingly important role. Apart from the widely recognized Bitcoin, the market value and influence of various digital assets have increased significantly in recent years. The diversity of these assets not only offers investors a broader range of options but also reflects the rapid development and innovative capacity of this field.

In Taiwan, the digital asset market is gradually expanding, attracting an increasing number of investors to participate in this new sector. As the market grows, the urgent need for a sensible and effective regulatory framework becomes apparent. Currently, Taiwan's regulation of digital assets primarily focuses on anti-money laundering (AML), with the Financial Supervisory Commission (FSC) stipulating related guidelines.⁴² Yet, these measures are still insufficient in protecting investors' rights and promoting the healthy development of the market. The lack of clear and comprehensive regulatory policies not only poses risks to investors but also brings uncertainty to operators building the industry.

i. Anti-Money Laundering Legal Framework

Anti-money laundering (AML) holds a pivotal role in the global financial system, especially within the highly anonymous digital assets market. With the proliferation of cryptocurrencies, their anonymity and the convenience of cross-border transactions have increased the risks of money laundering and financing terrorism. Consequently, the international communities and national governments have been actively strengthening the supervision and scrutiny of this domain. In June 2015, the Financial Action Task Force (FATF) issued AML guidelines for digital assets, clarifying how AML regulations should apply to cryptocurrencies. Taiwan, as a country actively engaged in the international financial market,

 ⁴² 金融監督管理委員會,發布金融監督管理委員會「管理虛擬資產平台及交易業務事業(VAS P)指導原則」, https://www.fsc.gov.tw/ch/home.jsp?id=96&parentpath=0,2&mcustomize=news_vie w.jsp&dataserno=202309260005&dtable=News(最後瀏覽日:2023 年 12 月 22 日)



amended Article 5 of its Anti-Money Laundering Act at the end of 2018, ⁴³ officially including cryptocurrency platforms and transaction services within its regulatory scope, thus establishing a legal foundation for the AML measures concerning cryptocurrencies. In April 2021, pursuant to the Anti-Money Laundering Act, the Executive Yuan defined virtual currencies and designated the scope of virtual currency businesses. The Financial Supervisory Commission (FSC) also began to actively urge digital assets service providers to comply with AML regulations before commencing operations. ⁴⁴ Providers violating the regulations could face penalties up to NT\$10 million, as stipulated by the Anti-Money Laundering Act.

Subsequently, in June 2021, Taiwan officially announced the "Regulations on Anti-Money Laundering and Counter-Terrorism Financing for Virtual Currency Platforms and Transaction Services." These changes mandated that relevant operators adhere to stricter regulations, such as implementing customer identity verification procedures, monitoring, and reporting suspicious transaction activities. These measures have enhanced the transparency and security of the overall financial system.

However, the current anti-money laundering legal framework is the primary regulation targeting digital assets service providers in our country. Thus, it still falls short in terms of investor protection and promoting industry development.

ii. Regulatory guidance

After numerous public hearings and the participation by our association in providing various opinions, the Financial Supervisory Commission (FSC) issued the "Guidance for the Management of Virtual Asset Platforms and Transaction Services Businesses ("Guidance")" in September 2023. This represents a significant advancement in Taiwan's efforts to strengthen the regulation of cryptocurrencies and related trading platforms. The main purpose of the Guidance is to enhance the management of digital assets platforms in order to protect the rights and interests of consumers and investors, while also improving market transparency and security.

The Guidance explicitly states that it is mandatory for the issuers of digital assets to announce their whitepapers on their websites, and digital assets trading platform operators must also post a link to these whitepapers on their websites. Additionally, the Guidance require platforms to segregate customers' assets— from

⁴³ 洗錢防制法第5條第2項。

⁴⁴ 行政院 110 年 4 月 7 日院臺法字第 1100167722 號令。



their own to prevent conflicts of interest and ensure the safety of customer assets. Platforms are also required to appoint an accountant to issue a report on the custody of customer assets at least annually and make it viewable by the public.⁴⁵

The Guidance emphasizes the fairness and transparency of trading rules, requiring platforms to disclose trading rules and ensure market fairness, as well as to immediately reveal transaction information of digital assets and provide it to the customers. Moreover, platforms need to establish comprehensive internal rules and systems, including information security management and consumer complaint handling mechanisms, to improve operational efficiency and service quality. 47

The Financial Supervisory Commission (FSC) has also imposed some restrictions on VASP operators' business operations, such as prohibiting the issuance of stablecoins ⁴⁸ and the operation of derivative financial products transactions with digital assets as the underlying collaterals, as well as operating digital assets businesses with security-like characteristics without authorization. ⁴⁹

iii. Establishment of industry and trade associations

After three years of our efforts, the Ministry of Economic Affairs of Taiwan finally announced in August 2023 the addition of a new "Virtual Currency Business" industry category. The purpose is to enable operators of virtual currency platforms and transaction services to implement legal compliance and self-regulation. ⁵⁰ This newly established category covers the exchange between virtual currencies and fiat currencies or among virtual currencies, the transfer of virtual currencies, custody, or management of virtual currency services, and participation in or provision of services related to the issuance or sale of virtual currencies.

By establishing trade associations, operators are encouraged to collectively set industry standards and self-regulation norms, enhancing the industry's self-discipline and credibility, reducing negative perceptions and distrust towards the industry. This measure helps improve the entire industry's regulatory compliance

(最後瀏覽日:2023 年 12 月 22 日)

^{45 「}管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 5 點

^{46 「}管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 6 點

^{47 「}管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第8點

^{48 「}管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 3 點

^{49 「}管理虛擬資產平台及交易業務事業 (VASP) 指導原則」第 12 點

⁵⁰ 壹蘋新聞網,經濟部為商業團體標準新增「虛擬通貨商業」業別,三個重點一次了解,2023 年 8 月, https://tw.nextapple.com/blockchain/20230818/4833B42D6F6B884DFC0DD306B0B81F37



and transparency and provides a platform for cooperation among operators

In light of this, our association will continue to promote the regulation and application of digital assets in Taiwan, while encouraging innovation and technological development, to support the diverse use of digital assets and foster industry growth.

II. Policy formulation and research work

With the rapid development of the virtual currency market, the importance of establishing a professional and influential trade association has increased accordingly. Therefore, the soon-to-be-established Virtual Currency Business Association will play a crucial role. To better achieve the objectives of our association and effectively support the upcoming Virtual Currency Business Association, we plan to incorporate our existing organization into a special project team focused on policy formulation and regulatory research. Going forward, we will collaborate extensively with the trade association, concentrating our efforts on two main areas: policy formulation and advocacy, as well as regulatory research and analysis.

Simultaneously, our association has undertaken extensive work on information security standards for digital assets (hereinafter referred to as "InfoSec Standards"). In the future, our association can assist in incorporating and passing on these past experiences and achievements to the forthcoming trade association, thereby elevating the industry's requirements for information security standards. The construction of the InfoSec Standards conducted by our association is detailed as follows:

i. Direction of Information Security Standards for the Virtual Currency Industry:

Since the inception of virtual currency exchanges, there have been numerous instances where exchanges were compromised by hackers, leading to the endangerment of user assets, and in some cases, even resulting in the closure of exchanges. To protect the digital assets of users in Taiwan, our association, together with industry experts, has conducted extensive research and established a unified information security process for virtual currencies. We have officially released the "Direction of Information Security Standards for the Virtual Currency Industry (Direction) " to ensure the establishment and implementation of internal audits and controls, introduce relevant information security measures,



and facilitate access to information for all sectors and consumers. This serves as a basis for assessing the safety of digital asset transactions and as an option for reference. The Direction has been initially introduced and followed by several member organizations of our association.

ii. Information Security Committee

To review the information security declarations submitted by exchange operators, our association established the "VASP Information Security Standards Committee" on November 4, 2022. As an independent committee, it is tasked with deciding on the required documents for the "Information Security Management Policy Statement" and reviewing the documents for information security declarations submitted by other operators. The VASP Information Security Standards Committee currently has a total of 10 members, comprising lawyers, information security scholars, blockchain technology experts, and industry representatives.

iii. Implementation of Information Security Standards

We fully recognize the importance of information security and user asset protection in the rapidly evolving virtual currency industry. Therefore, we have developed a comprehensive Direction to guide operators in implementing effective information security management. The Direction covers aspects from establishing information security policies, setting up an information security management organization, to risk assessment and handling. It is particularly emphasized that for the security management of virtual currencies and digital assets, we recommend our members adopt multi-layered protective measures, including but not limited to the security architecture design of hot wallets and cold wallets.

Additionally, we also put emphasis on the security of system development. We encourage our members to integrate security elements into the development process, using encryption technology to protect data and transactions. Personnel security management and education are also indispensable aspects; we advocate for regular information security training and awareness enhancement for employees. To address potential security incidents, we have established an emergency incident management process, ensuring a rapid and effective response to various security challenges. Through these measures, our goal is to create a more secure and reliable virtual currency trading environment, providing a solid foundation for the sustainable development of the entire industry.



iv. Two operators that have completed the Information Security Management Policy Statement





To encourage our association's member organizations and leading domestic virtual currency platform operators to pay attention to and invest in information security, our association will assist in handling the "Information Security Management Policy Statement (Statement)". Operators that have completed the Statement will be announced collectively on the official website of the association, facilitating access to relevant information for all sectors and consumers, serving as a reference for asset trading options.

Currently, through the joint efforts of our association, the Information Security Committee and the operators, two exchanges have completed their declarations. The first operator, MaiCoin Asset Exchange, a digital asset exchange, passed the review in April 2023. The second operator to pass the review was Bito Group, in November 2023. Going forward, we will continue to guide more digital assets platform operators to adopt information security standards and complete their information security declarations.



Chapter 3: Promoting the Application of Blockchain Technology in Taiwan and International Exchange

Taiwan has bred generations of top-notch software technology talents, and in recent years, numerous operators in Taiwan have dedicated to providing services related to blockchain technology. Blockchain, the underlying technology of digital assets, not only offers solid support for the digitization of assets but also injects vitality into the entire virtual economy ecosystem. The third policy of our association is to promote the application and adoption of blockchain technology in Taiwan and to provide comprehensive support and assistance to related industries.

On the international stage, several countries have already taken the lead over Taiwan in terms of regulating and developing digital assets. The experiences and achievements of these countries provided valuable lessons for us on the path to regulatory adjustments and industry growth. Therefore, our association will actively promote exchanges and cooperation with other countries in the future, hoping that through the sharing of international experiences, we can bring profound insights to the development and regulatory supervision of Taiwan's industry. Next, we will detail the directions that the association plans to focus on for development.

I. Inviting International Blockchain Technology Teams to Visit and Establish a Presence in Taiwan

To further promote Taiwan's development in the global blockchain sector, our association is dedicated to strengthening cooperation and exchange with international professional teams. We understand that bringing top international blockchain technology teams to Taiwan can not only accelerate our technological innovation and industry development but also is a key step in promoting closer connections between Taiwan and the international community.

For this purpose, our association has released a detailed "2023 Taiwan Blockchain Industry Ecosystem Map". This is not only a meticulous overview of Taiwan's blockchain industry but also a powerful tool for integrating resources. Through the blockchain map, we can precisely identify key players in various



blockchain fields within Taiwan, thereby gaining a deeper understanding of the dynamics and needs of the industry. This will help us to more effectively connect with international teams and promote the exchange of knowledge and technology.

In the future, our association will organize international visits and exchange activities aimed at inviting leading global blockchain technology teams to visit Taiwan, and facilitating collaborations with local partners or establishing branches in Taiwan. Through these activities, we hope to encourage in-depth exchanges between international experts and Taiwan's blockchain enthusiasts and operators, to explore possibilities for future collaborations. This will not only accelerate the development of blockchain technology in Taiwan but will also help us integrate more quickly with the international community, thereby promoting the overall industry's growth and innovation.

Through active collaboration and exchange, we aspire to make Taiwan an international hub for global blockchain technology and establish a clearer and stronger position for Taiwan in this cutting-edge technology.

II. Association Annual Objectives

i. Taiwan-Japan International Exchange Visit

In November 2023, our association became a corporate member of the Japan Cryptocurrency Business Association (JCBA). Established in 2016, JCBA is dedicated to supporting stakeholders in the public blockchain and Web 3.0 ecosystem, aiming to improve the business environment related to cryptocurrency assets. As a membership-based organization, JCBA leverages the expertise of its member companies in technology, taxation, accounting, law, and business.





Conducting research, proposing policy recommendations, and fostering talent development are among JCBA's core activities.

Over the past year, our association has maintained continuous communication with key industry players in Japan, including Coincheck, the leading compliant digital assets exchange, and CoinPost, a prominent blockchain media outlet. This engagement not only provided valuable opportunities for mutual technical and experiential sharing but also established a communication channel with several Taiwanese exchanges. This has paved the way for broader collaboration possibilities, laying the foundation for exploring partnerships and potential joint ventures within the Taiwan-Japan blockchain industry.

Looking ahead, our association remains committed to strengthening exchanges and cooperation with Japan in the blockchain field. Through proactive international collaborations, we aspire to enhance Taiwan's standing in the global blockchain industry and infuse more international perspectives and resources into Taiwan's technological innovation and industrial development.

ii. Creating the 2024 Taiwan Blockchain Ecosystem

As blockchain technology matures and its applications expand, a comprehensive understanding of the industry ecosystem becomes increasingly crucial. In collaboration with our first-year partners, None Capital, Web3+, AppWorks, and various media partners, our association meticulously planned the 2023 Taiwan Blockchain Ecosystem/Report. This resource, available on our website (https://map.bcda.tw/), covers businesses and teams across various subsectors, including trading platforms, service providers, startups, and established enterprises. Additionally, in partnership with the second Taipei Blockchain Week (TBW), our association released an Ecosystem Handbook in English. These initiatives offer international stakeholders and institutions in-depth insights into the diversification and flourishing development of Taiwan's digital assets industry.

Our association's Ecosystem not only serves as a tool for navigating the industry but also as a platform for facilitating communication and collaboration within and beyond the industry. It provides an overview of the industry landscape, reflecting the current state of Taiwan's blockchain industry and highlighting the contributions of leading companies and innovators.

Building on this momentum, our association plans to expand industry collaborations and is gearing up to develop an in-depth and updated second edition



of the 2024 Ecosystem. This will encompass a broader range of market participants and incorporate the latest market trends and technological innovations. Our goal is to provide a more detailed, up-to-date, and forward-looking information source to assist investors, researchers, and international teams in recognizing Taiwan's growing significance in the blockchain industry.



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