A report of blockchain and cryptocurrencies in illegal betting

Asian Racing Federation Council on Anti-illegal Betting & Related Financial Crime

May 2021
Blockchain and cryptocurrencies in illegal betting

Executive Summary

The purpose of this report is to explain how blockchain technology and cryptocurrencies are being used in the illegal betting industry in Asia.

Blockchain and cryptocurrencies have been widely adopted in the betting industry in the form of payments, betting applications built on blockchain technology and to move funds.

The emergence of this technology is a threat to legal betting because of the intrinsic features of many cryptocurrencies, such as: facilitating avoidance of anti-money laundering (AML) and know-your-customer (KYC) procedures by betting operators; circumvention by operators of international betting regulatory and licensing requirements; and instantaneous and anonymous cross-border transactions from bettors and operators.

All of these features are attractive to bettors and operators in jurisdictions where online betting is illegal and/or restricted. Regulators in many jurisdictions have also been slow to keep up with the growth of blockchain, creating loopholes exploited by organised crime. International law enforcement and anti-money laundering bodies have highlighted that blockchain and cryptocurrencies facilitate illicit activities including illegal betting and money laundering.

As a measure of the growth of cryptocurrency in betting, Bitcoin is now accepted on at least 127 offshore sports betting websites and 284 online casinos, which is a seven- and 13-fold increase respectively since 2018.

In addition to Bitcoin, at least 780 offshore websites accept one or more of the five biggest cryptocurrencies, and most of these websites accept players from jurisdictions such as Hong Kong (83%), Australia (78%), Japan (92%) and Singapore (82%).

Cryptocurrencies further facilitate illegal betting by giving the operators of illegal bookmaking syndicates and related entities such as Macau casino junket operators a means of transferring money without detection in order to offshore the criminal proceeds of their illegal betting operations, settle payments with customers, and pay employees in overseas illegal betting hubs such as the Philippines. For these reasons they have also been enthusiastically adopted by entities linked to the junket industry.

3 Analysis of database casinocity.com
4 Bitcoin, Ethereum, Tether, Ripple, BitcoinCash
5 Analysis of database casinocity.com as of 27 November 2020. Of the 780 websites that accept one or more of the five biggest cryptocurrencies, 645 websites (83%) accept Hong Kong players, 612 websites (78%) accept Australian players, 716 websites (91%) accept Japan players and 637 websites (82%) accept Singaporean players.
1. Background – What are cryptocurrencies and blockchain?

Blockchain is a technology which records and stores transaction data on a decentralised, encrypted public record shared between all computers in the network, known as a distributed ledger. Transactions are stored in blocks of data linked in a chain of unchangeable records. This allows digital information to be recorded, distributed, publicly verified, but not altered.

Cryptocurrencies are digital currencies built on blockchain technology, with Bitcoin the first and best-known example. There are now an estimated 4,000 to 7,000 cryptocurrencies with a market capitalisation of around USD 360 billion.

Supporters believe cryptocurrencies improve on traditional money (fiat currency) because the fact that they are built on blockchain means: there is no central regulator such as a central bank; the elimination of intermediaries (payment processors such as traditional banks, credit cards) makes transactions more efficient; the inability to tamper with records on the blockchain makes transactions more secure; and their anonymity or pseudonymity protects users.

Detractors generally agree that blockchain is a useful technology but argue that cryptocurrency is at best a speculative bubble; that its intrinsic features mean its most obvious use case is money laundering and payment for illegal products and services; and point out that the sector is endemic with hacking, fraud and scams.

The Financial Action Task Force (FATF) has warned that many jurisdictions have not yet taken sufficient regulatory action over cryptocurrencies and that these loopholes are being exploited by criminals and terrorists. Europol has highlighted that blockchain hinders the identification, tracing and monitoring of suspicious behaviour, posing added challenges to law enforcement.

In 2019, losses from cryptocurrency-related crimes more than doubled to USD 4.52 billion from USD 1.74 billion in 2018. In 2017, more than three-quarters of Initial Coin Offerings (ICOs), the issuance of a cryptocurrency to investors, were scams.

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7 Some cryptocurrencies may not be built on blockchain but for the purposes of this report, cryptocurrencies means built on blockchain
11 Kate Rooney, ‘Bitcoin is the ‘mother of all scams’ and blockchain is most hyped tech ever, Roubini tells Congress’, NBC, 11 October 2018 (https://www.cbc.ca/20/1901/13133751555776) accessed 2 November 2020
17 FATF 12-Month Review Of The Revised Fatf Standards On Virtual Assets And Virtual Asset Service Providers
2. How cryptocurrencies and blockchain are used in illegal betting

The main ways in which cryptocurrencies and blockchain are used in betting are: 1) as a substitute for fiat currency and traditional payment processors; 2) in decentralised gambling applications built on blockchain technology (‘dapps’); 3) to transfer funds to betting agents; 4) to launder illegal betting profits.

Cryptocurrencies as payments in online betting

The simplest and most widespread use of cryptocurrencies in betting is as a substitute for traditional payment mechanisms, where cryptocurrencies are deposited with a betting website and used to bet with as illustrated in Figure 1.

Blockchain’s key technological features mean that customers in jurisdictions where online betting is illegal or restricted, and/or where traditional payment processors are prohibited from online betting transactions, can use cryptocurrency betting sites or gambling dapps (‘decentralised apps or dapps’) to circumvent such restrictions with virtually untraceable transactions.\(^{21}\)

![Figure 1 - the flow of funds from fiat currency to cryptocurrency betting websites. The process is reversed for withdrawals, or cryptocurrencies may be stored in one’s wallet.\(^{22}\)](https://example.com/fund-flow)

The five biggest cryptocurrencies are Bitcoin, Ethereum, Tether, Ripple and BitcoinCash (see Table 1 below)\(^{23}\) – one or more of these are accepted by at least 780 online betting websites, 19\% of all 4,069 betting websites in a leading database.\(^{25}\) A majority of these 780 websites accept players from jurisdictions such as Hong Kong (83\%), Australia (78\%), Japan (92\%) and Singapore (82\%).\(^{26}\) These numbers represent operators licensed in overseas jurisdictions only (the grey market) and do not include unlicensed (black-market) sites.

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\(^{24}\) Analysis based on top 100 payment methods accepted by betting sites listed on Casino City as of 18 September 2020 (http://online.casinocity.com/)

\(^{25}\) There is a total of 4,069 online gaming websites listed on http://online.casinocity.com as of 27 November 2020.

\(^{26}\) Of the 780 websites that accept one or more of the five biggest cryptocurrencies as of 27 November 2020, 645 websites (83\%) accept Hong Kong players, 612 websites (83\%) accept Australian players, 716 websites (91\%) accept Japan players and 637 websites (82\%) accept Singaporean players.
This adoption of cryptocurrencies in online betting has grown rapidly. In September 2020, 127 online sportsbooks and 284 online casinos accepted Bitcoin, a respective seven- and 13-fold increase since November 2018.

<table>
<thead>
<tr>
<th>Cryptocurrency</th>
<th>Market cap (USDbn)</th>
<th># websites</th>
<th># websites accessible in jurisdictions (% websites accessible)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>HK</td>
</tr>
<tr>
<td>Bitcoin</td>
<td>212</td>
<td>493</td>
<td>390 (79%)</td>
</tr>
<tr>
<td>Ethereum</td>
<td>42.5</td>
<td>127</td>
<td>113 (89%)</td>
</tr>
<tr>
<td>Tether</td>
<td>15.8</td>
<td>28</td>
<td>26 (83%)</td>
</tr>
<tr>
<td>Ripple</td>
<td>10.9</td>
<td>42</td>
<td>34 (81%)</td>
</tr>
<tr>
<td>BitcoinCash</td>
<td>4.6</td>
<td>90</td>
<td>82 (91%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>285.8</strong></td>
<td><strong>780</strong></td>
<td><strong>645 (83%)</strong></td>
</tr>
</tbody>
</table>

Table 1 – The five biggest cryptocurrencies are accepted on at least 780 online betting websites, the vast majority of which accept Asian players. Source: casinocity.com and coinmarketcap.com

The four most popular sportsbooks accepting payments in cryptocurrency among Asian bettors are licensed in Curacao. One cryptocurrency-only site offers markets on races from Hong Kong, Japan, Australia and New Zealand (see example below on a cryptocurrency bookmaker for more detail).

All of these sites also offer the vast range of betting products typical at illegal betting websites such as in-play markets on virtually every sport, e-sports, virtual sports and casino games. Accounts can be opened from various Asian jurisdictions almost instantly, with no VPN or other workaround required.

Since October 2018 these sites have received a total of 229 million global visits, of which more than 23% were from Asia-Pacific jurisdictions where online betting is illegal or heavily restricted such as India, Thailand, South Korea, China, Australia and Hong Kong, with traffic share illustrated in Figure 2.

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27 127 + 284 is less than the total number of Bitcoin websites in Table 1 (493) because other forms of gambling – spread betting / lotteries / fantasy sports not included in this total
28 Online Casino City. ‘Bitcoin’ (http://online.casinocity.com/payment-methods/Bitcoin accessed 18 September 2020)
29 According to casinocity.com and supported by Similarweb analysis
30 Dummy accounts were opened on all sites, with only one platform taking longer than a minute to register and requiring any more information than a phone number or email address. That platform requires an address and proof of identity for withdrawals but does not appear to restrict bettors from Hong Kong, Japan, China and several other Asian jurisdictions. None of the other sites require any KYC information. Another site actively provides advice to bettors on how to bypass regional URL blocks.
31 Similarweb analysis. The websites were visited the most by viewers from ten Asian jurisdictions: India (14.15%), Thailand (5%), Malaysia (0.6%), China (0.5%), South Korea (0.5%), Taiwan (0.5%), Australia (0.4%), Japan (0.3%), Hong Kong (0.3%) and Vietnam (0.3%).
Figure 2 - Traffic share of four leading betting websites which accept cryptocurrency and are popular in ten Asia-Pacific jurisdictions from October 2018 to August 2020. Source: Similarweb traffic analysis

Agents of these betting sites are active in Asia, promoting the sites through Facebook, Twitter, YouTube, WhatsApp, Telegram, and Instagram. One betting platform provides a multi-lingual website tailored for Asian audiences in China, Japan, Thailand and Vietnam. The betting sites also market their brands to bettors in Asia by sponsoring major European football teams and entire leagues, and advertising in Chinese during live sports events.

The acceptance of cryptocurrency by unlicensed operators (the black market) does not yet appear as widespread, with payment processors familiar to mass-market bettors such as AliPay, WeChat and bank transfer still the norm.33 34 35

Betting applications built on blockchain technology

Betting applications can also be built using blockchain technology (‘decentralised apps or dapps’) and/or by the issuance of cryptocurrency tokens designed only for wagering with one specific website or dapp.

The leading example is Tron,36 a blockchain operating system created in China. Tron is a platform for dapps and not specifically designed for gambling, but in 2019, USD 3.9 billion of a total USD 4.4 billion transactions on Tron were estimated to be

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32 The betting website is displayed in nine languages: Chinese, English, Spanish, Japanese, Portuguese, Turkish, Thai, Dutch and Vietnamese.
gambling-related, with gambling dapps more than 90% of all dapps on the system.\textsuperscript{38} Other leading gambling dapps / cryptocurrencies are shown in table 2 below.\textsuperscript{39} 40 41

Such operators usually highlight the fact that their betting product is “provably fair” – arguing that because all transactions are visible on the blockchain, the operator cannot cheat the bettor. Bettor anonymity and the circumvention of KYC and regulatory restrictions are also commonly mentioned as key benefits.

Apart from Tron and to a lesser extent Augur, these are currently niche products as the table shows. However, betting on dapps makes illegal bookmaking even harder if not impossible to police.

<table>
<thead>
<tr>
<th>Token</th>
<th>Market Cap (USDm)</th>
<th>Global rank of all cryptocurrencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tron</td>
<td>1,900</td>
<td>16</td>
</tr>
<tr>
<td>Augur</td>
<td>142</td>
<td>72</td>
</tr>
<tr>
<td>Wagerr</td>
<td>7</td>
<td>623</td>
</tr>
<tr>
<td>Unikoin Gold</td>
<td>1.9</td>
<td>1,044</td>
</tr>
<tr>
<td>Peerplays</td>
<td>1.2</td>
<td>1,198</td>
</tr>
</tbody>
</table>

Table 2 - relative scale of gambling dapps.\textsuperscript{42}

Cryptocurrencies at online betting agents

It is now common for online bet brokers to accept Bitcoin.\textsuperscript{43} Bet brokers provide access to a wide range of bookmakers and exchanges, particularly Asian sites such as Citibet. Brokers thus allow bettors access to agent-only illegal websites such as Citibet, and to circumvent geo-blocking or legal restrictions by placing bets on their clients’ behalf.\textsuperscript{44}

Using Bitcoin adds a further layer of anonymity to bettor-broker transactions, making it even harder if not impossible to detect or trace broker-led illegal bookmaking.

Cryptocurrency as a means to offshore and launder illegal betting profits

Cryptocurrency is also used to move funds related to illegal bookmaking and has been adopted by Macau casino junket operators.

For example, China’s Ministry of Public Security states that cryptocurrency is one means by which illegal betting operators transfer CNY 1 trillion in annual gambling-related funds out of China.\textsuperscript{45}


\textsuperscript{39} Wagerr, (https://www.wagerr.com) accessed 22 September 2020

\textsuperscript{40} “What is a betting broker and how to use them?” rebelbetting.com, 15 March 2019 (https://www.rebelbetting.com/blog/what-is-a-betting-broker-and-how-to-use-them)

\textsuperscript{41} Cryptocurrency helps ship 1 trillion yuan out of China to casinos, gambling every year’ SCMP 25 September 2020 (https://www.scmp.com/economy/china-economy/article/3103045/china-loses-1-trillion-yuan-casinos-and-gambling-every-year)
It is not known what proportion of this CNY 1 trillion was in cryptocurrency, but the ceiling is USD 50 billion, or approximately one-third. This was the total volume of cryptocurrency moved out of East Asia (China, Japan and South Korea) in 2019/20, \(^{46}\) though of course not all of the total is from China, nor all illegal betting-related. \(^{47}\)

USD 18 billion of the USD 50 billion total was in the cryptocurrency Tether, a so-called stablecoin\(^ {48}\) tied to the value of the US Dollar which has been extremely popular in China since the government banned the conversion of the yuan to cryptocurrency in 2017. \(^ {49}\) Tether’s price stability makes it popular as a store of value, capital offshoring and for overseas remittance. \(^ {50}\)

Examples of the latter in the illegal betting industry have been observed in 2020, such as a Chinese cross-border illegal bookmaking syndicate which paid its employees in the Philippines in cryptocurrency; \(^ {51}\) and a separate syndicate based in Guangdong which used Tether to launder proceeds. \(^ {52}\)

Macau casino junket operators have been enthusiastic adopters of cryptocurrencies because they facilitate one of their core business interests – moving money anonymously. \(^ {53}\) \(^ {54}\) \(^ {55}\)

In 2017, Dragon Coin was launched in Macau as a cryptocurrency specifically designed to help VIP gamblers evade China’s capital restrictions. \(^ {56}\) Despite negative publicity because of links to WAN Kuok-koi, a convicted triad leader in Macau, Dragon Coin raised USD 407 million in its token sale. \(^ {57}\) It is not known to what purpose these funds have been used, since none of the mooted projects Dragon Coin used to promote its ICO, \(^ {58}\) which included a giant floating casino in Macau’s harbour, \(^ {59}\) have materialised.

WAN Kuok-koi issued his own cryptocurrency shortly afterwards in Cambodia, reportedly raising USD 750 million in five minutes. \(^ {60}\) The cryptocurrency was supposedly to be used for prize money in poker and chess tournaments in Mainland China, but there has been no mention of it since 2018.


\(^ {47}\) ibid

\(^ {48}\) A crypto currency pegged to an asset or basket of assets perceived to be stable such as fiat currency or precious metals, designed to prevent the price volatility common to most cryptocurrencies.


\(^ {50}\) ibid

\(^ {51}\) '中国地方力推职业教育 相关政策文件超56亿’ Xinhua, 12 August 2020 (http://www.xinhuanet.com/legal/2020-08/12/c_1126538518.htm)

\(^ {52}\) Sebastian Sinclair, ‘Chinese Authorities Crack Down on Gambling Sites Using Tether Stablecoin’, CoinDesk, 23 October 2020 (Chinese Authorities Crack Down on Gambling Sites Using Tether Stablecoin accessed 5 November 2020)


\(^ {57}\) An ICO is analogous to an initial public offering in stock exchanges, where an organisation creates its own cryptocurrency and sells it to would-be investors in the organisation, instead of selling shares.


In 2020, WAN Kuok-koi and others linked to the Macau junket / online betting nexus such as leading junket Hengsheng,61 62 63 are active in Myanmar, in schemes to build three so-called “blockchain smart cities” which campaigners and NGOs argue are merely fronts for online illegal betting and money laundering.64 65 

Some involved, including WAN Kuok-koi,66 were previously active in similar schemes in Cambodia, until that country criminalised its huge online betting sector in late 2019 under pressure from Beijing.67 Another key individual has reportedly been wanted by Chinese authorities on illegal gambling charges since 2014.68 

NGOs have highlighted the huge potential for money-laundering and other criminality from this development69 In February 2020, global anti-money-laundering watchdog FATF put Myanmar on its increased monitoring watchlist for deficiencies in its AML regime.70 

Case Study: a cryptocurrency bookmaker linked to illegal betting and other criminalities

An example illustrating the above risks of cryptocurrency betting is an Asian-facing cryptocurrency-only betting site which has links to illegal betting exchange Citibet. A key principal of the sportsbook has a criminal record and has been disqualified as company directors, and linked to unproven allegations of match-fixing and corrupt betting in e-sports. This sportsbook does not appear to possess a licence from any betting regulator but accepts customers from any jurisdiction apart from Australia, with zero Know Your Customer requirements or other restrictions. The sportsbook also actively promotes Hong Kong, Australia and Japan racing as their key products via online forums and social media, facilitating illegal betting in Asian jurisdictions.

Key principals of the sportsbook were key figures in attempts to set up a white-label version of Citibet to target Australian and European bettors, which was deemed illegal

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61 http://hengshengcomplex.com/
66 Niall Fraser, ‘Former Macau triad boss ‘Broken Tooth’ Wan Kuok-koi to use blockchain and overseas Chinese links in Cambodia venture’ South China Morning Post, 7 June 2018 (Former Macau triad boss ‘Broken Tooth’ Wan Kuok-koi to use blockchain and overseas Chinese links in Cambodia venture accessed 4 November 2020)
68 ibid
by Australian authorities, and led to the winding-up of a bookmaking company in Australia and the revocation of Norfolk Island’s licensing powers in 2016.\textsuperscript{71, 72, 73}

The sportsbook offers horse racing, harness and greyhound racing, the same markets offered by Citibet, and in the exactly same jurisdictions as Citibet. Like Citibet, it offers pirate live-streams of races.

Key principals of the sportsbook were also partnered with an entity authorised to issue gambling licences on behalf of an offshore tax haven, an arrangement specifically highlighted by international anti-money laundering regulators as an example of that country’s lack of AML supervision in 2015.\textsuperscript{74} The key principals further supported the tax haven with betting software to enable betting agents who would be charged on the number of bettors in their downline (“pay-per-head”). This allows street bookmakers to set up apps for their bettors without any technological skill and has been widely used particularly by US-based illegal bookmakers.\textsuperscript{75, 76}

This sportsbook has links to another cryptocurrency bookmaker examined above, sharing same racing software, racing products and domain registrant. This second bookmaker operates in the United Kingdom under a white-label licence provided by a company reportedly owned by a Macau junket operator. This company also provides white-label licences for many Asian-facing sportsbooks, allowing Asian operators to promote their brand in Asia by advertising on UK sport. The second bookmaker does this through sponsorships with major football leagues, advertising in Chinese on team shirts and pitch-side hoardings during matches.

\section*{Conclusion}

Cryptocurrencies in betting and dedicated blockchain gambling apps are widespread and rapidly growing, which poses several risks to legal betting operators and wider society.

Such sites and apps facilitate illegal betting by allowing illegal bookmakers and bettors to circumvent any restrictions on payment processors, and to move money instantly and anonymously. Cryptocurrency bookmakers are typically licensed in jurisdictions which lack any credibility, ignore any regulatory restrictions and accept customers from any jurisdictions.

\begin{thebibliography}{10}
\bibitem{71} Patrick Smith, ‘All bets are off for Norfolk Island to grant wagering licences’ The Australian, 7 April 2016 (https://www.theaustralian.com.au/sport/all-bets-are-off-for-norfolk-island-to-grant-wagering-licenses/news-story/de26958045f843506e0f12a66b7feg accessed 9 October 2020)
\bibitem{73} Jasmine Solana, ‘Norfolk Island loses power to grant gambling licenses to international operators’, calvinayre.com (https://calvinayre.com/2016/04/08/business/norfolk-island-loses-power-to-grant-gambling-licenses-to-international-operators/ accessed 21 September)
\bibitem{75} Preventing criminal risks linked to the sports betting market’ IFRS (https://www.iris-finance.org/wp-content/uploads/2017/06/PreCRIMBET_2017_FINAL.pdf accessed 21 September 2020)
\bibitem{76} ‘Pay-Per-Head books an integral, innovative, and ambiguously illegal part of sports betting industry’ Covers, 19 July 2016 (https://www.covers.com/editorial/article/f521cb1e-951e-2711-80c8-f4e842377c0c/pay-per-head-sportsbooks-costs-is-illegal-betting-bookies-betting-odds-sports-bets accessed 21 September 2021)
\end{thebibliography}
Many of the sites which accept cryptocurrencies are accessible in Asian jurisdictions, and are actively advertising their product in Asia through social media and by sponsoring major overseas sports leagues and teams popular in Asia.

Cryptocurrency is also being used by illegal betting syndicates and related organised crime figures to settle payments, to offshore the profits from illegal betting operations, and to fund illegal betting operations across Southeast Asia.

The rise of cryptocurrency and blockchain in the betting industry underlines a key point in the global anti-illegal betting narrative, which is that illegal betting operators will always be swifter and more agile to adapt to new technologies and regulatory loopholes/grey areas.

The Asian Racing Federation is a regional federation comprising 29 racing authorities and racing-related organisations. Among its core objectives is the promotion of integrity in the sport of horse racing. The ARF Anti-Illegal Betting Taskforce was established in 2017 and comprises members from horse racing, sports, academia, and international organisations.

In October 2020, the task force was renamed as the Council on Anti-Illlegal Betting & Related Financial Crime, whose purpose is to foster and enhance international cooperation among horse racing operators, regulators, intergovernmental organisations and government agencies in order to better combat the threat of illegal betting and other financial crimes to horse racing integrity and other sports.

The members of the council are as follows:

Martin Purbrick (Chairman)
Douglas Robinson (Deputy Chairman) The Hong Kong Jockey Club
James Porteous (Research Head) The Hong Kong Jockey Club
Jack Anderson University of Melbourne
Graham Ashton Former Chief Commissioner, Victoria Police
Tom Chignell The Hong Kong Jockey Club
Brant Dunshea British Horseracing Authority
Sally Gainsbury University of Sydney
Neil Grimstone New Zealand Racing Integrity Unit
Claudio Marinelli INTERPOL
James Ogilvy Asian Racing Federation
Ronan O’Laoire United Nations Office on Drugs and Crime
Catherine Ordway University of Canberra
Tim Robinson Racing Victoria
Tak Sung Hyun Korean Racing Authority

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