



How can legislators protect sport from the integrity threat posed by cryptocurrencies?

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Abstract

The emergence of wagering sites taking bets in cryptocurrencies like bitcoin could lead to significant change in the way match-fixers operate. Internet gambling has already put fixing into overdrive. Now, with cryptocurrencies, fixers have a payment mechanism which offers them significantly more anonymity. This poses a new set of challenges not just for law enforcement authorities but also for lawmakers. This essay analyses the appropriateness of Australia's legislation on match-fixing in an environment of 'crypto-wagering', and identifies several loopholes which could be exploited by fixers at the cutting edge of gambling and financial technology.

Keywords Match-fixing · Bitcoin · Cryptocurrency · Gambling · Sports betting

1 Introduction

In March 2017, in the Austrian capital of Vienna, two teams from the country's sixth- and seventh-tier soccer competitions participated in a practice match. It was attended by a solitary spectator. Yet despite the incredibly low profile of the match, it was available for betting on international bookmaking websites. One of these sites, called Cloudbet, was of particular interest, and not just because it seemed to specialise in low-level competitions: betting on Cloudbet can only be carried out using bitcoins.

Bitcoin is an online payment instrument (known as a cryptocurrency) that is regarded as the perfect tool for carrying out business on the digital black market, as it provides the anonymity of cash with the ease of electronic transfers. The notorious Silk Road site, nicknamed 'the eBay of drugs', only accepted payments in bitcoin.¹

The features that make cryptocurrencies ideal for those nefarious activities would also seem to make it the ideal means with which to place bets associated with match-fixing, a criminal activity which has increased in frequency in the Internet age.

While there is no evidence of anything untoward occurring in Vienna, the incident sparked the curiosity of

Austria's Federal Police and highlights the need for legislators and law enforcers to be prepared for match-fixers looking to defraud this new type of betting market.

This essay will examine the applicability of current laws around match-fixing and online gambling with regard to bets placed on cryptocurrency betting sites and suggest changes that would protect the integrity of sports from this newly emerging threat.

It begins with an exploration of what cryptocurrencies are and their use as a tool for black market activity, before moving on to look at the way legislators have adapted to this new technology in areas such as taxation and money laundering.

The following chapter looks at the online gambling industry and the reasons it has fostered an explosion in match-fixing cases. The relevant laws around both fields are then examined in detail.

An analysis of the crypto-wagering industry then precedes an assessment of how existing laws around match-fixing and online gambling are applicable when the betting in question is carried out with a cryptocurrency. Suggested legislative amendments are included.

To ensure a thorough examination of the interaction between 'traditional' match-fixing laws and cryptocurrencies, this essay focuses on the laws of Australia and its

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¹ Brito and Castillo (2016).

states and territories. It is appropriate to focus on one country's legislation in detail as such an analysis can provide lessons for all jurisdictions. However, in the Internet age, no country is island, and consideration is given to USA and European law throughout. Indeed, in the Internet age, the laws of other nations can have considerable impact on the situation in Australia, and protecting the integrity of Australian sports may be aided by some changes to these laws.

2 Cryptocurrencies

2.1 Cryptocurrencies: an overview

Satoshi Nakamoto invented bitcoin in the nadir of the Global Financial Crisis as a 'purely peer-to-peer version of electronic cash' which required neither government nor the banks to operate.² It was designed purely for transactions made online, and while it was not the first 'e-money' created, it was financially revolutionary because it removed the need for trusted third parties, such as a bank or credit card provider, in the payment process. This is achieved through blockchain technology, which creates a decentralised ledger stored rhizomatically across bitcoin's global network of users. As a result, every transaction ever made with bitcoin is publicly available to be seen.

By removing the need for an intermediary, transactions costs are reduced to a minimum.³ By operating outside of government, it is borderless, making international transactions simpler and free of exchange fees.⁴ There is no possibility of double spending, a problem with previous Internet payment methods,⁵ and it is 'almost impossible to defraud'.⁶ Such technology even has the potential 'to transform political institutions that are central to contemporary human societies'.⁷ It has been called censorship resistant, because there is no central authority that controls bitcoin, and therefore no way for authorities to stop payments being made around the network.⁸

While bitcoin's record of transactions is transparent, cryptographic technology gives buyers and sellers a high degree of—or near total—anonymity, hiding their identity behind a non-identifying alphanumeric string of characters known as a public key. This use of encryption has led to bitcoin being dubbed a cryptocurrency.

Close to a thousand new cryptocurrencies have emerged in bitcoin's wake, encouraged in part by the explosive growth of bitcoin's value against the US dollar. These *altcoins* (alternatives to bitcoin) are bountiful in number and include Litecoin, GeistGeld, SolidCoin, BBQCoin, PPCoin, through the only serious challenger to bitcoin's position as the gold standard of cryptocurrencies is Ethereum. The reserve banks of Estonia and Latvia have created their own national cryptocurrencies, while a 'kosher coin' has been designed for the Jewish diaspora. The fast-food multinational Burger King has even released the Whoppercoin in Russia (though it has been called a 'glorified loyalty points program').

By offering the anonymity of cash with the ease of digital transactions, a cryptocurrency is ideal for criminal activity—everything from laundering money for terrorism financing to buying drugs on black market websites.⁹

However, the veil can be lifted, so to speak. Should someone uncover a person's public key, all their transactions can be discovered. Links to a public key (such as an IP address) may be left at the time of purchasing cryptocurrency from an exchange. In a sense, this is like a criminal leaving fingerprints on a dollar bill. Statistical analysis of the blockchain has also proved effective of de-identifying bitcoin users.¹⁰

Brito and Castillo write:

So, while Bitcoin is very similar to cash in that parties can transact without disclosing their identities to a third party or to each other, it is unlike cash in that all the transactions to and from a particular Bitcoin address can be traced.¹¹

Nevertheless,

Bitcoin users do enjoy a much higher level of privacy than do users of traditional digital-transfer services, who must provide detailed personal information to the third-party financial intermediaries that facilitate the exchange.¹²

This mixture of transparency and anonymity has been called *pseudo-anonymity*.¹³

It should be noted that while cryptocurrencies seem resistant to fraud, the exchanges that most people use to buy and store their cryptocurrencies are not. The most famous example of this is Mt Gox, the world's largest bitcoin exchange from which hundreds of millions of dollars worth of bitcoin was stolen by hackers.

How lawmakers deal with the challenges posed by this rapidly emerging technology will be explored in the

² Huang (2015).

³ Brito et al. (2014, pp. 150–1).

⁴ Huang (2015, p. 2101).

⁵ Brito et al. (2014, pp. 150–1).

⁶ Dula and Chuen (2017, p. 15).

⁷ Reijers et al. (2016, p. 134).

⁸ Brito et al. (2014, pp. 150–1).

⁹ Brito and Castillo (2013, p. 9).

¹⁰ Ibid.

¹¹ Ibid., p. 5.

¹² Ibid., p. 6.

¹³ Ibid., p. 5.

following section. These challenges begin with how to even define a cryptocurrency.

However, before doing so, it is important to note that bitcoin is still very much a fringe player in the financial world. While its value has skyrocketed (and then crashed), there are still very few places it can be used, and it may be incapable of being ‘scaled up’ to a level necessary to become a mainstream payment option. Therefore, at this stage, it has only limited scope to aid nefarious activities, nearly all of which are still carried out using fiat (state-issued) currency.

Nevertheless, cryptocurrencies present a unique set of challenges to lawmakers and these cannot be ignored, especially if they do gain mainstream acceptance.

2.2 Legislative response and challenges

2.2.1 What are cryptocurrencies in the eyes of the law?

Australian notes and coins are granted status of legal tender by the *Reserve Bank Act* and the *Currency Act*, respectively.¹⁴ While this makes them the default currency of business carried out in Australia,¹⁵ their position is not one of exclusivity. As per section 9 of the *Currency Act*, transactions may be ‘made, executed, entered into or done according to the currency of some country other than Australia’.¹⁶ Nevertheless, as found in *Watson v Lee*, the Commonwealth does hold the constitutional right ‘to control and regulate the receipt and use’ of such currencies within its borders.¹⁷

In any case, bitcoin is not ‘the currency of some country other than Australia’, as a 2014 determination by the Australian Tax Office (ATO) clarified.¹⁸ Firstly, it is stateless. As such, under Australian law, it cannot be considered currency, which is defined, in part, by the recognition it receives from a state as that jurisdiction’s default monetary unit.¹⁹

Another defining aspect of a currency is its position as ‘a species of the broader category’ of money.²⁰ Yet bitcoin cannot be classed as that either.²¹ In coming to this decision, the ATO turned to *Moss v Hancock*,²² a nineteenth-century case involving a stolen coin, which was considered

a collectable (a unique item) rather than a store of value. The case considered the definition of money in some detail, and this concept was developed further in *Travelex*,²³ where Emmett J stated that bank notes are considered money, despite not being legal tender, since it ‘is common consent and conduct that gives a thing the character of money’.²⁴ Subsequently, in *Messenger Press*, promissory notes were found not have this universal acceptance and could therefore not be classed as money.²⁵ Thus, while a digital currency shares many ‘essential elements’ of what money is, it cannot be considered that way until its usage gains mainstream acceptance.²⁶

In a separate determination, delivered simultaneously, the ATO declared bitcoin to be property, for at least the purposes of capital gains tax. Drawing on *Yanner v Eaton*, where property was defined not as ‘a thing’ but to ‘a legal relationship with a thing’,²⁷ the ATO found that bitcoin was to be considered property because, amongst other reasons, it is ‘treated as valuable, transferable’ by those who use it; this is evidenced by the ‘active market for trade in bitcoin’ where ‘substantial amounts of money can change hands between transferors and transferees’.²⁸

However, with regard to the goods and services tax (GST), it was announced in the 2017 Australian federal budget that purchases made with ‘digital currencies’ would be treated in line with purchases made with fiat currency when it comes to this tax.²⁹ Previously, the ATO had ruled that the purchasing of goods with bitcoin was akin to bartering.³⁰

Australia’s approach to cryptocurrencies is in line with that of many other developed nations, such as Germany and Singapore, where cryptocurrencies are treated as financial items subject to taxation rules.³¹ In the USA, cryptocurrencies are treated as property for federal tax purposes,³² and case law would suggest that cryptocurrencies cannot be considered a competing currency of the US dollar under the

¹⁴ *Reserve Bank Act 1959* (Cth) s 36(1); *Currency Act 1965* (Cth) s 16.

¹⁵ *Currency Act 1965* (Cth) s 11(1).

¹⁶ *Ibid* s 9(1).

¹⁷ *Australian Constitution* s 51(xii); *Watson v Lee* [1979] HCA 53, [28].

¹⁸ Australian Tax Office (2014), Income tax: is bitcoin a ‘foreign currency’ for the purposes of Division 775 of the Income Tax Assessment Act 1997?, TD 2014/25, 7 December 2014.

¹⁹ *Ibid.*, [31]–[32].

²⁰ *Ibid.*, [17].

²¹ *Ibid.*

²² [1899] 2 QB 111.

²³ *Travelex Limited v Commissioner of Taxation* [2008] FCA 1961.

²⁴ *Ibid* [25].

²⁵ *Messenger Press Proprietary Ltd v FC of T* [2012] FCA 756.

²⁶ Australian Tax Office (2014), Income tax: is bitcoin a ‘foreign currency’ for the purposes of Division 775 of the Income Tax Assessment Act 1997?, Taxation Determination TD 2014/25, 7 December 2014, [24].

²⁷ *Yanner v Eaton* [1999] HCA 53 [17].

²⁸ Australian Tax Office (2014), Income tax: is bitcoin a ‘CGT asset’ for the purposes of subsection 108-5(1) of the Income Tax Assessment Act 1997?, TD 2014/26, 7 December 2014, [10]–[11].

²⁹ *Treasury Laws Amendment (2017 Measures No 6) Act 2017; A New Tax System (Goods and Services Tax) Act 1999* (Cth).

³⁰ Australian Tax Office (2014) Goods and services tax: the GST implications of transactions involving bitcoin’, Goods and Services Tax Ruling, GSTR 2014/3, 7 December 2014.

³¹ Borroni (2016, pp. 97–98).

³² *Ibid* p. 101; Brito and Castillo (2016, p. 55).

Stamp Payments Act,³³ since they have been ‘designed for internet transactions only and as such, at least on a theoretical level, cannot compete with official fiat currencies’.³⁴ However, in regard to securities regulation, a District Court ruled in *Shavers* that bitcoin is like money and therefore subject to banking laws, at least in regard to the specifics of that particular case.³⁵

Borroni describes the legislative reaction to cryptocurrencies as ‘fragmented’, ‘heterogeneous’ and ‘dominated by the uncertainty’ of the ‘measures to be taken’.³⁶ This is exemplified by the reaction in BRICS countries. On the one extreme, the Brazilian government has classified bitcoin as a currency, subjecting it and other digital monies to conventional regulations regarding currency. Meanwhile, Russia and China have gone in the other direction.³⁷

2.2.2 Illicit activities

2.2.2.1 Drugs While authorities have created some degree of control over cryptocurrencies for taxation and financial purposes, the same cannot be said regarding the use of cryptocurrencies for illicit activities. The biggest success story in this field is also a picture of how futile policing efforts are in the long term.

The Silk Road was a notorious black market website, or ‘clandestine eBay’, specialising in the sale of drugs. Payments were made exclusively in bitcoin, and users of the site enjoyed high levels of anonymity. Nevertheless, US authorities were eventually able to discover the identity of the site’s owner (who had left his email address in an Internet forum while developing the site). As a result, US authorities were able to arrest him and shut down his site.

However, Silk Road’s closure has simply cleared space on the ‘dark web’ for new sites selling drugs, stolen credit cards and possibly even sex slaves. Huang argues the strategy of using prosecutorial tactics against black market Internet operators ‘seems to have been completely unsuccessful’ and says authorities will have difficulty expanding their investigatory powers for similar cases because of First Amendment protections over Web anonymity and financial transactions data.³⁸

It is also worth noting that while the identity of the Silk Road’s operator was uncovered, US authorities have been unable to identify any of those who made illicit

transactions using bitcoin on the site.³⁹ And unlike Silk Road, bitcoin itself cannot be raided, nor can it be shut down, since it is a decentralised system that ‘exists only on a network of computers’.⁴⁰ Shutting down hundreds of computers will not be enough to disable a peer-to-peer system.

2.2.2.2 Money laundering The head of investment firm BlackRock says the popularity of cryptocurrencies ‘identifies how much money laundering there is being done in the world’.⁴¹ However, Europol noted in 2015 that bitcoin was not widely used for such activity.⁴² Whatever the case, the architecture that has sprung up around cryptocurrencies does offer some possibilities to prevent this practice.

Bitcoins are created through ‘mining’, a process that involves the programming of computers to solve complex mathematical problems. Each bitcoin is harder to mine than the one before it, and such large amounts of computational muscle are now needed to solve these riddles that mining is beyond the capabilities of most users.

Hence, most users purchase bitcoins through an exchange, similar to how they would purchase a foreign currency. Thus, even despite bitcoin’s *raison d’être* being that removal of financial middleman in transactions, these traditional financial structures have emerged to a small degree.

Exchanges are the entry and exit points between the cryptocurrency universe and the fiat system, and the Financial Action Task Force (FATF) says money laundering regulation should focus on these.⁴³ Stokes says these exchanges act as ‘regulatory choke points’ that can ‘easily be incorporated into the existing anti-money laundering framework’.⁴⁴ Some go as far as to argue that by monitoring these exchanges, cryptocurrencies could become less of a money laundering threat than fiat currencies are.⁴⁵

[A]ll of the essential regulatory and enforcement elements — identifying parties and information, a record of the transaction, and even enforcement —

³³ *Stamp Payments Act of 1862*, 18 USC §336.

³⁴ Borroni (2016, pp. 109–10).

³⁵ *Securities and Exchange Commission v Trendon T Shavers and Bitcoin Savings and Trust*, Civil Action No Civil Action No 4:13-CV-416.

³⁶ Borroni (2016, pp. 95–9).

³⁷ Ibid., pp. 95–6.

³⁸ Huang (2015, pp. 2094–2116).

³⁹ Ibid., p. 2016.

⁴⁰ Ibid., p. 2119.

⁴¹ Willmer, S (2017) Larry Fink Says Cryptocurrencies Show Level of Money Laundering. Bloomberg Markets. <https://www.bloomberg.com/news/articles/2017-10-03/larry-fink-says-cryptocurrencies-show-level-of-money-laundering>.

⁴² Europol (2015) The Internet Organized Crime Threat Assessment, p. 47.

⁴³ Financial Action Task Force (2015, p. 3).

⁴⁴ Stokes (2012, p. 231).

⁴⁵ Keidar, R and Treisman, N (2017) How blockchain could end, instead of enable, money laundering. Vulturebeat. <https://venturebeat.com/2017/10/08/how-blockchain-could-end-instead-of-enable-money-laundering/>.

can exist in the cryptocurrency system. It's all a matter of adjusting perspective.⁴⁶

While Kaiser notes the 'grave problem' that 'service providers suitable for money laundering operations will establish themselves in jurisdictions with little or no oversight',⁴⁷ in large part, exchanges are set up in jurisdictions with traditionally strong money laundering frameworks in place. Hileman and Rauchs' Global Cryptocurrency Benchmarking Study of 2017 found that more than a third of exchanges were based in the UK and Europe, while close to a fifth were located in the USA and Canada. Half of all European exchanges and most North American ones were found to be licensed.⁴⁸ Licensing was generally absent in Asia-Pacific, a region with more exchanges than North America, although it was noted that 'not having a formal license does not necessarily mean that the exchanges are not regulated, as appears to be the case now with many of the China-based exchanges'.⁴⁹

Given the borderless nature of the Internet, the FATF says international cooperation is essential if the cryptocurrencies' use in money laundering is to be controlled.⁵⁰ Australia is one country that has followed FATF's advice, as evidenced by recently proposed amendments to the *Anti-Money Laundering and Counter-Terrorism Financing Act* (AML/CTF Act).⁵¹ The changes would 'close a regulatory gap by regulating digital currency exchange providers'.⁵² This includes requirements to 'conduct customer due diligence, keep transaction records and make suspicious matter reports'; to be registered/licensed; and to provide 'adequate supervision and regulation'.⁵³

The amendments also 'expand the definition of e-currency to include convertible digital currencies not backed by a physical "thing"'.⁵⁴ Having the appropriate definitions in place is important.

In the USA, money laundering is dealt with through laws such as the *Bank Secrecy Act*,⁵⁵ the *Money Laundering Control Act*⁵⁶ and the *USA PATRIOT Act*.⁵⁷ These

acts were written in the period of 1970–2001 and were described in 2014 as being 'inadequate in preventing cyber laundering because [they do] not directly acknowledge the existence of virtual currencies'.⁵⁸ However, changes to the *Bank Secrecy Act*'s definition of 'money transmission services' mean it now includes not just those which accept or transmit currency or funds, but also 'other value that substitutes for currency'.

The European Union's money laundering legislation does not recognise cryptocurrencies explicitly.⁵⁹ However, it is written broadly enough to make money laundering involving cryptocurrencies a criminal act, as its focus is not on 'money' but 'property',⁶⁰ which it defines as 'assets of any kind, whether corporeal or incorporeal, movable or immovable, tangible or intangible'.⁶¹

3 Online betting and match-fixing

This preceding section explored the challenges and achievements of lawmakers and regulators in dealing with a financial instrument unforeseeable even a handful of years ago. Clearly, cryptocurrencies also present a challenge in the area of online gambling and match-fixing. Before assessing how lawmakers should proceed in that area, it is necessary to look at the issues posed to sporting integrity by fiat currency online gambling, the emergence of which has presented authorities with a range of issues in recent years.

This chapter begins with an overview of the international online gambling industry and how its growth has facilitated an explosion in match-fixing. It then examines in detail how match-fixing is dealt with by Australian laws. This occurs primarily through state and territory criminal codes. As will be seen, these laws also interact with the federal *Interactive Gambling Act* (IGA), and other laws and regulations.

3.1 The online gambling industry: an international overview

Online gambling is almost as old as the World Wide Web itself. Three years after the public was first given access to the web, the Caribbean nation of Antigua and Barbuda (Antigua) had legislated to allow the practice.⁶² In August

⁴⁶ Ibid.

⁴⁷ Kaiser (2016, p. 217).

⁴⁸ Hileman and Rauchs (2017, pp. 30–6).

⁴⁹ Ibid., p. 36.

⁵⁰ Financial Action Task Force (2015, p. 9).

⁵¹ *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* (Cth); *Anti-Money Laundering and Counter-Terrorism Financing Amendment Bill 2017*.

⁵² Explanatory Memorandum, *Anti-Money Laundering and Counter-Terrorism Financing Amendment Bill 2017* (Cth), 7.

⁵³ Ibid.

⁵⁴ Ibid., 15 [21].

⁵⁵ *Bank Secrecy Act of 1970*, 31 USC § 5311 (1970).

⁵⁶ *Money Laundering Control Act of 1994*, 18 USC § 1956 (1994).

⁵⁷ *USA PATRIOT Act of 2001*, 115 Stat 272 (2001).

⁵⁸ Zhou (2014, p. 123).

⁵⁹ *The 4th Anti-Money Laundering Directive* [2015] OJ L 141/73.

⁶⁰ Kaiser (2016, pp. 212–3).

⁶¹ *The 4th Anti-Money Laundering Directive* [2015] OJ L 141/73, art 3(3).

⁶² *The Free Trade and Processing Zone Act 1994* (Antigua and Barbuda); Kelly (2000a, b, pp. 127–131).

1995, virtually 4 years to the day since the Web went public, what may have been the world's first gambling website, casino.org, was launched.⁶³

The gambling industry, like many others, has found the Web to be extremely fertile ground. By 1997, global gross revenue for online gambling was already estimated to be around US\$600 million; by the end of the decade, there may have been as many as 700 online gambling websites,⁶⁴ accounting for over 4 per cent of e-commerce at the time.⁶⁵ In 2015, the international sports betting market—which is driven in large part by online betting—was, by one estimation, possibly as high as \$3 trillion.⁶⁶ Other studies put international expenditure at \$38.5 billion in 2014, a jump from \$34 billion the year before.⁶⁷ This is reflective of the Australian experience, where online gambling expenditure tripled to \$2.4 billion from 2004 to 2014, thanks to a booming sports betting market.⁶⁸ Others say that, internationally, the legal sports betting market alone is equivalent to almost 2 per cent of global GDP.⁶⁹

While it is difficult to pinpoint the exact size of different gambling markets (and figures may be subject to exaggeration), it is clear that numbers involved are extraordinary and the Web is a driving force in the phenomenon.

One contributing factor to the explosion of Internet gambling is the low set-up costs involved: setting up an online casino was found to be equivalent to the purchase of a small number of slot machines.⁷⁰ Furthermore, offshore sites enjoy near-immunity to regulation compared to their bricks-and-mortar counterparts,⁷¹ and even where a government blocks access to such a site, VPN technology allows its citizens to go around these digital walls.⁷²

This is not to say that online gambling sites operate completely outside of the law. Wilson's 2003 study on the economic geography of the Internet gambling industry found that 'far from being divorced from place', sites will cluster in locations with favourable regulatory and tax arrangements.⁷³ While online gambling sites could easily set up operations without state sanction, having a license is 'an indicator to gamblers of their legitimacy'.⁷⁴ This is

important in an environment where customers may be wary of handing over credit card and other financial details and where 'high levels of competition mean that reputational risk is important to providers', who will generally 'have strong incentives to ensure customer satisfaction' (even if they don't 'plac[e] a premium on harm minimisation').⁷⁵

Thus, online gambling sites frequently engage in 'regulatory arbitrage',⁷⁶ a phrase borrowed from discussion of tax havens. They will set up in locations quite remote from that of their target market, where online gambling may be tightly policed, if not banned altogether.⁷⁷ For example, Australia has approximately two dozen licensed online sportsbooks, and these are typically licensed in the Northern Territory, the jurisdiction with the country's most favourable regulatory and tax regimes.⁷⁸

A state that has lowered the bar in order to attract such businesses is said to have engaged in the commercialisation of sovereignty. Typically, this is done because it has little other means by which to attract business to its shores.⁷⁹ Antigua is a primary example of this, and the twin-island microstate was estimated to control 60 per cent of online gambling worldwide at the turn of the century.⁸⁰

However, Antigua's online gambling industry has collapsed in the past decade. This is because the USA—which frowns upon online gambling—used its extraterritorial and financial muscle to bring the online gambling industry that had sprung up on its doorstep to heel. Its primary weapons have been the *Unlawful Internet Gambling Enforcement Act* (UIGEA),⁸¹ written in 2006 specifically to target financial transactions linked to online gambling, and the *Wire Act*, legislation from the 1960s designed to stop organised criminals using telephonic technologies to conduct gambling across state lines.⁸² Through this and other legislation, US authorities have been able to arrest key players in the online gambling industry and enforce credit card payment restrictions to gambling sites.⁸³

In contrast to the prohibitionist USA, the UK has encouraged and facilitated a domestic online gambling industry. A 2014 Sorbonne-ICSS audit of the online gambling industry found the UK, along with its crown

⁶³ Janower (1996).

⁶⁴ Kelly (2000a, b, pp. 118–9).

⁶⁵ Sorbonne-ICSS (2014, p. 8).

⁶⁶ Australian Government: Department of Social Services (2016, p. 25).

⁶⁷ Ibid., p. 44.

⁶⁸ Ibid.

⁶⁹ Sorbonne-ICSS (2014, p. 8).

⁷⁰ Wilson (2003, p. 1249).

⁷¹ Lessig (1999, p. 16).

⁷² Australian Government: Department of Social Services (2016, p. 111).

⁷³ Wilson (2003, p. 1246).

⁷⁴ Ibid., p. 1258.

⁷⁵ Victorian Responsible Gambling Foundation (2015) Offshore online wagering—what do we know?.

⁷⁶ Rose and Owens (2009, p. 108).

⁷⁷ Wilson (2003, p. 1249).

⁷⁸ Victorian Responsible Gambling Foundation, 'Offshore online wagering—what do we know?' (Information Sheet, 4 December 2015).

⁷⁹ Palen (2002, p. 152).

⁸⁰ Sutherland (2014, p. 11).

⁸¹ 31 USC §§ 5361–5367.

⁸² Rodenberg and Kaburakis (2013, p. 8).

⁸³ Ibid.

dependencies of Alderney (Guernsey) and the Isle of Man and its overseas territory of Gibraltar, had licensed hundreds of gambling operators between them.⁸⁴

Other ‘sports betting havens’ included Costa Rica, Malta, the Philippines’ semi-autonomous Cagayan province, Curacao and the Canadian Indian reservation of Kahnawake. Many of these jurisdictions are far more relaxed about regulation than the UK.

The attitude of Costa Rica, far and away the biggest hub in the Sorbonne-ICSS list, is described as *laissez-faire*,⁸⁵ while many of the companies based there have been labelled as ‘dubious’.⁸⁶ Cagayan, which is home to some of the biggest betting sites in the world, is considered a grey market, as it sits at the apex of Asia’s vast gambling black market, with bets flowing up from smaller agents (via super agents) looking to pool the risk of their bets.⁸⁷ One off-shore betting site recently discovered offering odds on Australian community sports was linked to organised criminals and match-fixing.⁸⁸ Offshore gambling sites have also been linked to money laundering.⁸⁹

3.2 Match-fixing

Match-fixing is not a new issue, but it is one that has been fundamentally accelerated by the growth of the online gambling industry. Chris Eaton, the former head of security with FIFA, says the ‘vulnerability of sport to [this type of] corruption has increased exponentially over the internet-age’.⁹⁰ Interpol’s Secretary General Ronald K Noble (paraphrased by Carpenter) notes that

with increased internet access, remote betting has revolutionised the gambling market in terms of reach and speed, providing opportunities for cybercrime to overlap illegal betting, creating more potential targets and more challenges for law enforcement.⁹¹

Hill describes the threat accordingly:

In the pre-internet days, it was sometimes difficult for a fixer to get enough money into the gambling market to

make the fix worthwhile. They had to hire “beards” and “runners” — people who could put their money on without seeming to be connected with the fixers. Now with a click of the mouse the fixer can place bets with a half-dozen bookmakers around the world, and with a few elementary precautions, no one is the wiser.⁹²

This is also true of in-play betting (which takes place as a game is in action). This type of betting is popular with fixers as it allows them to manipulate the odds, for example, by having the favourite team concede a goal early in a match, before then playing to win. Suspicious bets placed during a match are also less likely to attract unwanted attention from those monitoring the markets for suspicious movements in the odds.⁹³

The anomalies created by corrupt betting are also more difficult to detect in more liquid betting markets, and the growing popularity of Internet gambling has resulted in increasingly greater liquidity for smaller matches. This is of particular concern because players in lower leagues get little (if any) pay and are not subject to the same level of scrutiny as their professional counterparts. This makes them easier to manipulate.⁹⁴

Moreover, this increased liquidity encourages gambling operators to accept large bets on games that previously would have attracted insignificant betting interest, thus making it more worthwhile for gamblers to fix such matches as they can get higher returns.⁹⁵ Forrest calls liquidity the ‘friend of the fixer’ and says it is ‘key to how profitable buying a fix is and therefore how much it will be worthwhile to pay a player to execute the fix’.⁹⁶

Low liquidity in the market for event contingencies—such as the outcome of the next serve in tennis—is the reason ‘spot fixing’ is not considered a major threat.⁹⁷

In addition to betting on the result of a match, fixers commonly bet on the total number of goals that will be scored, and on the Asian Handicap market. The Asian Handicap is a form of handicap betting ‘settled by adding the handicap to the outcome of the match’.⁹⁸ An analysis of suspicious betting patterns found:

[T]he traditional fix of having a particular team losing by a predefined margin still appears to be a frequently used method (which enables a maximisation of profit on the Asian Handicap and Total Goals betting markets).⁹⁹

⁸⁴ Sorbonne-ICSS (2014, p. 13).

⁸⁵ Rose and Owens (2009, p. 112).

⁸⁶ Cooper (2011, p. 59).

⁸⁷ Forrest and McHale (2016, p. 13).

⁸⁸ Kerr, J (2017) Online gambling industry using data scouts to target suburban sports. ABC (online), 16 June 2017. <http://www.abc.net.au/news/2017-06-16/online-gambling-industry-targets-suburban-sports/8619546>.

⁸⁹ Australian Criminal Intelligence Commission (2017) Organised Crime in Australia 2017. ACIC, Canberra, p. 10.

⁹⁰ Eaton, Chris, Eaton’s Take on Tennis. The ICSS (online). www.theicss.org/en/news/read/eatons-take-on-tennis.

⁹¹ Carpenter (2011, p. 20), quoting Secretary General Ronald K Noble.

⁹² Hill (2010, pp. 176–7).

⁹³ Van Rompuy (2015).

⁹⁴ Forrest et al. (2008, pp. 158–9).

⁹⁵ Forrest and McHale (2016).

⁹⁶ Forrest (2013, p. 182).

⁹⁷ Van Rompuy (2015, p. 34).

⁹⁸ Ibid., p. 19.

⁹⁹ Ibid., p. 32.

Furthermore:

[T]he prevalence of suspicious betting in the Handicap markets, and in particular Asian Handicap markets, clearly reflects the fact that the Asian betting markets (where these types of bets are immensely popular) account for the majority of illicit funds being bet on football. According to estimates, over 70% of the betting turnover for football is recorded with Asian bookmakers.

European regulated bookmakers restrict stakes and disclose client details to law enforcement authorities. The Asian system of bookmaking (i.e. bets are collected from the street, betting shops, online and telephone betting and are passed up through a hierarchical agent system), on the contrary, allows bets to be placed anonymously and without betting limits. Hence, it is clear as to why professional fixers predominantly choose the Asian bookmakers to directly place their bets with.¹⁰⁰

3.3 Australia's legislative response and challenges

3.3.1 Online sports betting

Sports betting was legal in all Australian states and territories in the nineteenth century. However, a series of sports bribery cases involving cricketers, footballers and cyclists led to the activity being outlawed, and although it existed on the black market, it remained illegal until the 1980s, when states began to wind back restrictions. (Throughout this period of prohibition, wagering on racing continued to be legal.)¹⁰¹

Betting on major events such as the Sydney–Hobart Yacht Race was followed by ‘mildly successful’ Footy-TABs. But it was only with the emergence of the Internet that the ‘true potential of sportsbetting began to be revealed’. In 1996, the Northern Territory became the first jurisdiction to allow online betting, and other jurisdictions followed suit shortly thereafter.¹⁰²

The real game changer for Australia's online sports betting industry was 2008's High Court's ruling in *Betfair v Western Australia*,¹⁰³ which paved the way for online sportsbooks to not only operate across borders but also to be able to advertise in jurisdictions other than that where they held their licence. Thus, being licensed in a remote

part of the country was no longer commercially disadvantageous.¹⁰⁴

3.3.1.1 The Interactive Gambling Act Gambling law and regulation in Australia has historically been a matter for the states and territories.¹⁰⁵ However, the Commonwealth government is empowered under section 51(v) of the Constitution to legislate activity involving ‘postal, telegraphic, telephonic, and other like services’.¹⁰⁶ The definition of ‘other like services’ has been shown to include radio services (in *R v Brislan*)¹⁰⁷ and television services (in *Jones v Commonwealth*),¹⁰⁸ and the federal parliament has also taken this to include Internet services. Thus, in 2001, the *Interactive Gambling Act*, Australia's primary legislation regarding online betting, was introduced.¹⁰⁹

Regarding sports betting, the *Interactive Gambling Act* prohibits *online* in-play betting, though it allows it by telephone¹¹⁰ and allows it to be done pre-match by computer.¹¹¹ Notably, it does not prevent a person from making such a bet, but targets sites with ‘an Australian-customer link’ that ‘intentionally provides a prohibited interactive gambling service’.¹¹² Services which are not licensed by any Australian state or territory are prohibited from doing business in Australia.¹¹³ The act has explicit extra-territorial application,¹¹⁴ as well as extending to Australia's external territories.¹¹⁵

Nevertheless, hundreds of offshore betting sites allow Australian customers to access their services, and despite dozens of complaints being referred by the Australian Communications and Media Authority (ACMA) to the Australian Federal Police (AFP) for further investigation, not one charge has yet been laid over a breach of the *Interactive Gambling Act*. This has been said to represent a lack of will (or resources) by the AFP to follow up such matters, and to demonstrate the difficulty in pursuing those located overseas, even when armed with extraterritorial

¹⁰⁰ Ibid., p. 32.

¹⁰¹ Australian Institute for Gambling Research (1999, pp. 83–4).

¹⁰² Ibid.

¹⁰³ [2008] HCA 11.

¹⁰⁴ Parliamentary Joint Select Committee on Gambling Reform (2011) *Interactive and online gambling and gambling advertising Interactive Gambling and Broadcasting Amendment (Online Transactions and Other Measures) Bill 2011: Second report*. Commonwealth of Australia, Canberra. pp. 241–242.

¹⁰⁵ See, e.g. *Interactive Gambling (Player Protection) Act 1998* (Qld); *Interactive Gambling Act 1998* (ACT).

¹⁰⁶ *Australian Constitution* s 51(v).

¹⁰⁷ [1935] HCA 78.

¹⁰⁸ [1965] HCA 6.

¹⁰⁹ *Interactive Gambling Act 2001* (Cth).

¹¹⁰ *Interactive Gambling Act 2001* (Cth) s 5-8E.

¹¹¹ *Interactive Gambling Act 2001* (Cth) s 8A(3).

¹¹² *Interactive Gambling Act 2001* (Cth) s 15(1).

¹¹³ *Interactive Gambling Act 2001* (Cth) s 15AA(1).

¹¹⁴ *Interactive Gambling Act 2001* (Cth) s 14.

¹¹⁵ *Interactive Gambling Act 2001* (Cth) s 13.

power. Nor have any charges have been laid over breaches of the act by domestic operators.¹¹⁶

3.3.1.2 The Unlawful Gambling Act The *Interactive Gambling Act* allows for state laws, many of which came into existence first, to coexist with it where they are not in conflict.¹¹⁷ In contrast to the *Interactive Gambling Act* (but not in conflict with it), New South Wales' *Unlawful Gambling Act* does criminalise an individual's placing of a bet with an unlicensed Internet (or telephone) gambling service, in addition to penalising the bookmaker.¹¹⁸

Written prior to *Betfair v Western Australia* and the *Interactive Gambling Act*, the legislation focuses heavily on race wagering. For example, section 8 (3) prohibits Internet and telephone betting on Australian horse, harness or greyhound races with a bookmaker operating illegally (that is, without a New South Wales license)¹¹⁹ or without the authorisation of another state or territory.¹²⁰ An amendment from 2000 clarifies that this subsection relates to bookmakers located overseas (and, if unlicensed there, interstate),¹²¹ with parliamentary debate raising particular concerns that bookmakers were simply moving their operations to countries like Vanuatu from where they could continue to serve their New South Wales clientele.

While online sports betting was still a niche activity when it passed,¹²² the New South Wales legislation would nevertheless seem to still apply to this activity, even if it does not mention it within its pages. For example, section 8(1)(a) prohibits 'betting on *any* event or contingency if the person is not present at a licensed racecourse and the bet is made with a bookmaker',¹²³ and section 10 prohibits 'making a bet with another person if the person knows, or would reasonably be expected to know, that the other person is carrying on bookmaking in contravention of this Act'.¹²⁴

This act does not define event,¹²⁵ although a definition contained within the state's match-fixing laws (discussed

later) does include sporting events.¹²⁶ The findings in *IG Index v State of New South Wales* also lend weight to the argument that the sports betting is covered by the state's act.¹²⁷ While giving consideration to the plaintiff's argument that it may be limited to racing events,¹²⁸ Bongiorno J defined a bookmaker as 'one who quotes odds and accepts bets on (usually) sporting or similar contingencies'.

Indeed, he ruled that even betting on the movement of stock indices (financial spread betting) may be prohibited under this legislation.¹²⁹ However, in this case, the state act was found to be inconsistent with the Part 7 of the federal *Corporations Act*, since their activity 'involves dealing in derivatives', and thus the ASIC-licensed company was at fault.¹³⁰ This may be worthy of further reflection, given bitcoin's legal status as something other than money or currency.

3.3.2 Match-fixing laws

Australian legislators have begun to take the issue of match-fixing seriously in recent years. In 2011, in response to this 'emerging and critical issue', the relevant state and territory ministers (and their federal counterpart) signed the *National Policy on Match Fixing in Sport*.¹³¹ It committed all parties to introduce nationally consistent legislation which would see those involved in fixing matches liable for maximum penalties of 7–10 years in jail.¹³²

New South Wales was the first state to act on this agreement, passing amendments to the *Crimes Act* the following year.¹³³ Near-identical legislation was passed in South Australia a short time later.¹³⁴ Victoria followed suit in 2013,¹³⁵ followed by the two mainland territories.¹³⁶ Queensland introduced slightly amended legislation in the coming months.¹³⁷ Neither Western Australia, Tasmania nor Norfolk Island is yet to fulfil this commitment.

¹²⁶ *Crimes Act 1900* (NSW) s 193 J.

¹²⁷ [2006] VSC 108, [11].

¹²⁸ [2006] VSC 108, [14].

¹²⁹ [2006] VSC 108, [61].

¹³⁰ [2006] VSC 108, [32].

¹³¹ Department of Health, Australian Government (2011, p. 2).

¹³² Ibid.

¹³³ Crimes Amendment (Cheating At Gambling) Bill 2012 (NSW); *Crimes Act 1900* (NSW).

¹³⁴ Criminal Law Consolidation (Cheating at Gambling) Amendment Bill 2012 (SA); *Criminal Law Consolidation Act 1935* (SA) s 144G-K.

¹³⁵ *Crimes Amendment (Integrity in Sports) Act 2013* (Vic); *Crimes Act 1958* (Vic) s 195B-F.

¹³⁶ *Criminal Code (Cheating at Gambling) Amendment Act 2013* (ACT); *Criminal Code 2002* (ACT) s 363A-H; *Criminal Code Amendment (Cheating at Gambling) Act 2013* (NT); *Criminal Code Act 1983* (NT) s 237A-N.

¹³⁷ Criminal Code (Cheating at Gambling) Amendment Bill 2013 (Qld); *Criminal Code Act 1899* (Qld) s 443-443G.

¹¹⁶ Australian Communications and Media Authority (2015) Communications report 2014–15. Australian Government, Canberra, p. 87.

¹¹⁷ *Interactive Gambling Act 2001* (Cth) s 69.

¹¹⁸ *Unlawful Gambling Act 1998* (NSW) s 8-11A.

¹¹⁹ *Unlawful Gambling Act 1998* (NSW) s 9, 11A.

¹²⁰ *Unlawful Gambling Act 1998* (NSW) s 8(3).

¹²¹ *Unlawful Gambling Act 1998* (NSW) s 8(4A); *Unlawful Gambling Amendment (Betting) Act 2000* (NSW).

¹²² The Australian Institute of Gambling Research says sportsbetting accounted for just 0.2 per cent of Australia's gambling spend in 1997/98.

¹²³ *Unlawful Gambling Act 1998* (NSW) s 8(1)(a) (emphasis added).

¹²⁴ *Unlawful Gambling Act 1998* (NSW) s 10.

¹²⁵ *Unlawful Gambling Act 1998* (NSW) s 4.

Under New South Wales and analogous legislation, match-fixing by itself is not prohibited, as this could have led to the criminalisation—or ‘overcriminalisation’—of genuine poor performance.¹³⁸ Rather, the laws’ focus is conduct which ‘corrupts a betting outcome of an event’,¹³⁹ and it is only when a match is fixed for the purposes of defrauding the betting market that an offence has occurred.¹⁴⁰ Specifically, for an offence to occur, there must be an intention to obtain financial advantage (or cause financial disadvantage) through betting on a fixed match. (While fixing is largely done for profit, there can be sporting reasons to ‘tank’: for example, in the AFL, the team which finishes last gets the first pick in the national player draft.) Queensland’s legislation is slightly different, with a person committing an offence when they engage in match-fixing conduct for *any* pecuniary benefit.¹⁴¹ It is the only legislation to use the term *match-fixing*.¹⁴²

It is worth noting that for an offence to occur, it must be lawful to bet on the (fixed) event ‘under a law of this State, another State, another Territory or the Commonwealth’.¹⁴³ (Queensland does not include a reference to territory law in its legislation¹⁴⁴ and does not provide a definition of state which may have included the territories.¹⁴⁵) The fixing of *event contingencies*—such as the outcome of the next ball in cricket—for financial advantage is also an offence.¹⁴⁶

Victoria’s laws were used to prosecute those involved in fixing matches of the Southern Stars state league soccer team and tennis player Oliver Anderson. In both instances, fixing took place for the purposes of financial advantage.

However, attempts to prosecute a ‘courtsider’ transmitting data from the Australian Open to a betting syndicate in the UK failed. Even though the courtsider and his syndicate may have been having an influence on the betting markets, whether corruptly or not, they were in no way involved in influencing or attempting to influence the sporting performance.

Prior to the introduction of sports-specific legislation being introduced, match-fixers could be charged with fraud, or attempted fraud as NRL player Ryan Tandy was in 2010.

¹³⁸ New South Wales Law Reform Commission (2011, p. 14).

¹³⁹ See, e.g. *Crimes Act 1900* (NSW) s 193H(1); *Crimes Act 1958* (Vic) s 195B.

¹⁴⁰ See, e.g. *Crimes Act 1900* (NSW) s 193 N; *Crimes Act 1958* (Vic) s 195C.

¹⁴¹ *Criminal Code Act 1899* (Qld) s 443–443A.

¹⁴² *Criminal Code Act 1899* (Qld) s 443.

¹⁴³ *Crimes Act 1900* (NSW) s 193J.

¹⁴⁴ *Criminal Code Act 1899* (Qld) s 443.

¹⁴⁵ *Criminal Code Act 1899* (Qld) s 1.

¹⁴⁶ See, e.g. *Crimes Act 1900* (NSW) s 193 J(2); *Crimes Act 1958* (Vic) s 195B.

3.3.3 Betting and integrity agreements

The *National Policy on Match Fixing in Sport* also saw states and territories commit to granting national sporting bodies (Sports Controlling Bodies, or SCBs) veto rights over what bets could be offered on their competitions, if the sport chose to permit betting on some or any of its competitions at all.¹⁴⁷ The relevant authority would also be granted this power.¹⁴⁸ Sports were also able to create integrity agreements with bookmakers which would give them (and police) information regarding suspicious bets, as well as an agreed amount of moneys bet on their competitions.¹⁴⁹ Sports organisations were also required to meet integrity benchmarks in order to continue receiving government funding.¹⁵⁰

This section of the policy was modelled on legislation passed in 2007 in Victoria, where SBCs could apply to the Victorian Commission for Gambling Regulation for betting to be offered on their competitions.¹⁵¹ New South Wales’ version of the legislation came into effect in 2015.¹⁵² The ACT has been approving events for betting since 2001,¹⁵³ while South Australia has approved betting on event contingencies (though not events as a whole) since 2000.¹⁵⁴ The Northern Territory’s Administrator may, under the *Racing and Betting Act*, make regulations relating to ‘betting at approved sporting events’.¹⁵⁵

Using soccer as an example, it is easy to see different approaches between different jurisdictions.

New South Wales lists a number of specific competitions that can be bet on. As far as Australian competitions go, betting is allowed on the A-League and the ‘NSW State League’.¹⁵⁶ Victoria allows betting on ‘[m]atches controlled and regulated by national or international authorities’,¹⁵⁷ as well as all games organised by state leagues.¹⁵⁸

¹⁴⁷ Department of Health, Australian Government (2011, pp. 4 [3.5]–[3.6]).

¹⁴⁸ Ibid.

¹⁴⁹ Ibid., p. 5 [3.8](k).

¹⁵⁰ Ibid., 6 [3.13]–[3.14].

¹⁵¹ *Gambling and Racing Legislation Amendment (Sports Betting) Act 2007* (Vic).

¹⁵² *Racing Administration Amendment (Sports Betting National Operational Model) Act 2014* (NSW).

¹⁵³ *Race and Sports Bookmaking Act 2001* (ACT) s 20.

¹⁵⁴ *Authorised Betting Operations Act 2000* (SA) s 4.

¹⁵⁵ *Racing and Betting Act* (NT) s 148 (emphasis added).

¹⁵⁶ Liquor and Gaming NSW, *Schedule of Declared Betting Events and Approved Forms of Betting*.

¹⁵⁷ Victorian Commission for Gambling and Liquor Regulation, Approved betting events. <https://www.vcglr.vic.gov.au/gambling/wagering-and-sports-betting/about-wagering-and-sports-betting/approved-betting-events>.

¹⁵⁸ Victorian Commission for Gambling and Liquor Regulation, Sports controlling bodies.

<https://www.vcglr.vic.gov.au/gambling/wagering-and-sports-betting/sports-controlling-bodies>.

The Northern Territory allows betting from district level up to international competitions in a wide number of sports, including soccer.¹⁵⁹

New South Wales and South Australia allow betting on a wide number of event contingencies, although neither permits Asian handicap betting. Nonetheless, this betting type is still available in Australia.

Western Australia's *Betting Control Act* grants the state's the Gaming and Wagering Commission power to decide which sporting events may be bet on.¹⁶⁰ Approved events are to be announced in the government's *Gazette*.¹⁶¹ While a vast number of betting types have been approved, including several handicap betting types, Asian Handicap betting is not included in that list.¹⁶² A search of the *Gazette*'s database turned up no list of approved betting events. In any case, the *Racing and Wagering Act*, which classes itself as a superior act,¹⁶³ allows the RWWA to conduct betting on any sporting event,¹⁶⁴ unless it would not be in the public interest to do so.¹⁶⁵ The act gives a broad definition of a *sporting event* that includes any event 'prescribed in the rules of wagering or by the regulations as a sporting event'.¹⁶⁶ (The rules of wagering simply outline who the RWWA has authority over.)¹⁶⁷ Thus, it would appear that Western Australia offers a virtually limitless number of sporting events which can be bet on, as well as a long list of betting types.

3.3.4 Identification

All users of an Australian online gambling site must provide appropriate identification within at least 90 days of opening an account, and this must be verified by the site operator.¹⁶⁸ As per 'know your customer' (KYC) principles, a user must provide their name, date of birth and residential address, at a minimum, via 'reliable and independent documentation' or 'reliable and independent

electronic data'.¹⁶⁹ Until their identification has been verified, customers are not permitted to withdraw funds.¹⁷⁰

This requirement is prescribed by the CEO of the Australian Transaction Reports and Analysis Centre (AUSTRAC), the country's financial intelligence agency, who is empowered to make such a demand through the AML/CTF Act.¹⁷¹

The Northern Territory is an example of a jurisdiction with stricter rules: its Code of Practice for Responsible Online Gambling 2016 declares identification must be provided within 45 days.¹⁷²

4 Crypto-wagering

Using the above analysis of cryptocurrencies, online gambling and match-fixing, it is now possible to look at the interplay between the relevant laws in these areas.

4.1 Industry overview

Given the rapid evolution of Internet gambling, it should come as no surprise that the online gambling industry has also been quick to embrace cryptocurrencies. From April 2012, when the first such site, SatoshiDice, was launched, gambling with cryptocurrency (herein shortened to crypto-betting, or, where it relates to betting on sports, crypto-wagering) has grown into a multi-billion dollar business. Within months of the Silk Road being shut down in 2013, it was estimated that roughly half of all bitcoin transactions involved online gambling¹⁷³—perhaps because there are few other means with which to use bitcoin.¹⁷⁴ By 2015, 400 cryptocurrency betting sites were already in operation,¹⁷⁵ and that number jumped to around 3500 in 2017.¹⁷⁶

¹⁵⁹ Northern Territory Government, Declared sporting events for bookmaking. <https://nt.gov.au/industry/gambling/bookmaker-licences-and-permits/declared-sporting-events-for-bookmaking>.

¹⁶⁰ *Betting Control Act 1954* (WA) s 4B.

¹⁶¹ *Ibid.*, s 4B(3).

¹⁶² Western Australia, *Gazette: Fixed Odds Rules 2017*, No 142, 11 July 2017, [495] - [510].

¹⁶³ *Racing and Wagering Act 2003* (WA) s 120(3).

¹⁶⁴ *Ibid.*, s 54(2)(a)(ii).

¹⁶⁵ *Ibid.*, s 54(3).

¹⁶⁶ *Ibid.*, s 3 (definition of 'sporting event').

¹⁶⁷ *Ibid.*, s 120.

¹⁶⁸ Explanatory Statement, Anti-Money Laundering and Counter-Terrorism Financing Rules in Respect of the Definition of Designated Business Group, Correspondent Banking Due Diligence, Customer Identification Procedures, AML/CTF Programs and Gambling Sector (Cth) 3–4.

¹⁶⁹ Australian Transaction Reports and Analysis Centre (2017) Anti-Money Laundering and Counter-Terrorism Financing Rules Instrument 2007, No 1, 4 July 2017, part 4.2.

¹⁷⁰ *Ibid.*, s 10.4.2(2).

¹⁷¹ *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* (Cth) s 229.

¹⁷² Northern Territory Code of Practice for Responsible Online Gambling 2016 s 6.3.

¹⁷³ Bender (2014) Gamblers bet on Bitcoin for anonymous online wagering. Computerworld (online), 12 June 2014. https://www.computerworld.com.au/article/547387/gamblers_bet_bitcoin_anonymous_online_wagering/.

¹⁷⁴ Owens and Lavitch (2013, p. 764).

¹⁷⁵ Bitcoin Gambling Guide (2015) Bitcoin Gambling Guide' Pushes Ahead With Over 400 Bitcoin Gambling Platform Reviews (Press release, 9 June 2015). <https://bitcoinmagazine.com/articles/bitcoin-gambling-guide-pushes-ahead-400-bitcoin-gambling-platform-reviews-1433824607/>.

¹⁷⁶ Gainsbury and Blaszczynski (2017, p. 486).

Table 1 Location of crypto-wagering sites

Location	SBR (%)	Sorbonne-ICSS (%)	% pts diff
Costa Rica	61.1	45.51	15.6
Panama	8.3	0.00	8.3
Antigua	8.3	0.61	7.7
Curacao	5.6	2.06	3.5
Jamaica	2.8	0.00	2.8
Montenegro	2.8	0.00	2.8
United Kingdom	2.8	13.83	– 11.1
UK's crown dependencies and Gibraltar	0.0	14.44	– 14.4
Malta	0.0	10.44	– 10.4
Cagayan	0.0	8.25	– 8.3
Kahnawake	0.0	4.85	– 4.9
Unknown	8.3	0.00	8.3
By region			
Americas	86.11	48.18	37.93
UK, Alderney, Isle of Man and Gibraltar	2.78	28.28	– 25.50

SBR = wagering sites found on Sportsbook Review which accept cryptocurrency

Sources: Sportsbook Review, *Betting Sites* <https://www.sportsbookreview.com/betting-sites/>; Sportsbook Review, *Online Sports Betting Sites Rating Guide* (filtered for sites which accept bitcoin and do live betting) <https://www.sportsbookreview.com/betting-sites/#hf-bank-options:361=on;hf-features:47=on>

Sorbonne-ICSS = gambling sites found in Sorbonne-ICSS 2014 survey

Source: Sorbonne-ICSS, *Protecting the Integrity of Sport Competition: The Last Bet for Modern Sport* (Sorbonne-ICSS 2014)

Over that same 2-year window, turnover reportedly doubled to US \$2 billion.¹⁷⁷

Of the thousands of crypto-betting sites available online, only a handful offer crypto-wagering, a ratio which mirrors that found in the broader Internet betting industry. Thirty-six wagering sites are listed by Sportsbook Review (SBR) as specialising in or accepting bets in cryptocurrencies.¹⁷⁸ Figures compiled from SBR show that over 60 per cent of these sites are located in Costa Rica. Three are located in Panama and Antigua, while another three are Caribbean based (Curacao; Jamaica). In total, sites in the Americas account for 86 per cent of those on the SBR list. Of the remainder, one is listed by SBR as being UK based,¹⁷⁹

although its website makes no reference to a location or licensing country.¹⁸⁰ Three other sites have no location listed. The remaining site, Cloudbet, is the only operation licensed by Montenegro.¹⁸¹ (See Table 1.)

By comparison, the 2014 Sorbonne-ICSS survey of the world's 'sports betting havens' showed an approximate 50-50 split between sites in the Americas and those in the rest of the world.¹⁸² The UK, along with Alderney, Gibraltar and the Isle of Man, granted more than a quarter of licences on the Sorbonne-ICSS list. Sites recently found by ACMA to be in breach of the *Interactive Gambling Act*, as revealed through a freedom of information request posted on their website, were all located in Europe (Malta and three UK-linked islands).¹⁸³

Thus, the crypto-wagering industry may be considered highly US-focussed and possibly uninterested in the European market. This is reinforced when one considers the branding of the SBR-listed sites, nearly all of which

¹⁷⁷ Digital gold rush: how Bitcoin is changing the online gambling industry (2017).Tech Buzz (online), 23 June 2017. <http://www.tgdaily.com/technology/digital-gold-rush-how-bitcoin-is-changing-the-online-gambling-industry>.

¹⁷⁸ Sportsbook Reviews, Bitcoin Sportsbook Reviews. <https://www.sportsbookreview.com/betting-sites/bitcoin-sportsbooks/>; Sportsbook Review, *Online Sports Betting Sites Rating Guide* (filtered for sites which accept bitcoin and do live betting). <https://www.sportsbookreview.com/betting-sites/#hf-bank-options:361=on;hf-features:47=on>.

¹⁷⁹ Sportsbook Review, Anonibet. <https://www.sportsbookreview.com/betting-sites/anonibet/>.

¹⁸⁰ Anonibet. <https://www.anonibet.com>.

¹⁸¹ Sportsbook Reviews, Bitcoin Sportsbook Reviews. <https://www.sportsbookreview.com/betting-sites/bitcoin-sportsbooks/>.

¹⁸² Figures from Costa Rica where said to be between 250 and 500, so for this calculation, the difference was split at 375.

¹⁸³ ACMA, FOI disclosure log: Log 37 (Document 24). https://www.acma.gov.au/-/media/Legal-Services/FOI-logs/FOI-log-37/Document-24_Redacted-pdf.pdf?la=en.

feature gridiron (American football) as their primary sport (at least for design purposes). Soccer—as it is called on these sites—is rarely incorporated as a design feature. It should also be noted that more than a third of sites were found to be using servers in the USA. (See Appendix 1).

This US focus makes sense given that the *Unlawful Internet Gambling Enforcement Act* means financial transactions to gambling sites are heavily restricted in that country.¹⁸⁴

Thus, the geographic complexion of the crypto-gambling industry is reminiscent of the Internet gambling industry in its early days, which existed primarily on the USA's doorstep (until authorities stepped up their efforts against such operations). This intense focus on the US market may suggest that prohibition is driving people further out of the reach of authorities, making improprieties such as match-fixing harder to police.

Other advantages crypto-betting sites may have over regular betting sites include reduced transaction fees and better odds from the bookmaker, as a result of the bookmaker not having to deal with traditional financial gatekeepers.¹⁸⁵ Another advantage for 'the house' is that cryptocurrency transactions are irreversible, protecting them from fraud and non-payment.¹⁸⁶

For consumers, the transparency provided by blockchain technology offers greater protection against untrustworthy operators.¹⁸⁷ However, pseudo-anonymity is less important because it is the bookmaker, not the gambler, who is targeted by US laws.

4.2 Match-fixing

The Internet has fuelled an explosion in match-fixing. Crypto-wagering has enabled bets to be almost untraceable. It would seem, therefore, that cryptocurrencies could make the fixing of matches even more attractive to criminals and easier for athletes to organise autonomously. According to the Bitedge blog: 'Bitcoin and match fixing are a match made in heaven ... as someone who understands sports betting and bitcoin I can see no way to stop it'.¹⁸⁸

While no such cases have yet emerged, Austria's federal police have investigated the appearance of a low-level practice match involving football teams in the sixth- and seventh-tier leagues on a number of betting sites. One of those sites was the Montenegro-based Cloudbet, a site

which deals exclusively in cryptocurrency payments. A spokesperson for the site said that betting on such low-level games is quite popular, and an analysis of their site found that they frequently set books on low-level games.¹⁸⁹

In Australia, Cloudbet appears to have offered live betting opportunities on games from the Victorian State League 1 and 2, which are fourth- and fifth-tier leagues in the Australian football pyramid. For example, the Cloudbet site contains deactivated pages for betting on matches such as Essendon Royals v Altona City, Essendon Royals v Keilor Park, Banyule City v Keilor Park, Keilor Park v Altona Magic, Altona Magic v Westgate FC, Westgate FC v Preston Lions, Westgate FC v Cairnlea, Westgate FC v Keilor Park and FC Clifton Hill v Mornington.¹⁹⁰ (For sample screenshots, see Appendix 2).

While there is nothing to suggest that games listed on Cloudbet have been fixed, the fact that such small games are appearing on any site, let alone a crypto-wagering site, has raised concerns.

That said, there may currently be insufficient liquidity in the crypto-wagering markets to make fixing viable. Gambling may account for half of bitcoin transactions, but these equal just 5 per cent of bitcoin's total transaction values.¹⁹¹ Of the sites listed by SBR, some received as few as 15 unique visitors per day.¹⁹² Only one of these global sites, Bovada, had more visitors than the popular Australian fiat currency site Sportsbet.¹⁹³ On lower-tier games, liquidity may be especially low.

Regardless, sports and authorities must be prepared for the risk that crypto-fixing poses.

4.3 Match-fixing and online gambling laws

As already discussed, most Australian states have specific and near-identical legislation to deal with match-fixing. These laws focus on the corruption of a betting outcome rather than the fixing of the result itself (although that constitutes part of the crime). In this section, the adequacy of these laws to deal with a match-fixing case on the (offshore) crypto-wagering market will be explored.

¹⁸⁴ Gainsbury and Blaszczyński (2017, p. 487).

¹⁸⁵ Ibid., p. 485.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid., p. 486.

¹⁸⁸ Canning, J (2017) Is bitcoin being used for match fixing? Bitedge (17 March 2017) <https://bitedge.com/blog/is-bitcoin-being-used-for-match-fixing/>.

¹⁸⁹ Hammerl, M (2017) Fußballspiel mit einem Zuseher: Betrugsverdacht. Wien Orf.at (online), 17 March 2017. wien.orf.at/news/stories/2831706.

¹⁹⁰ See, e.g. <https://www.cloudbet.com/en/sports/soccer/essendon-royals-sc-v-altona-city-sc/e158004>; <https://www.cloudbet.com/en/sports/soccer/essendon-royals-sc-v-keilor-park-sc/e859741>; <https://www.cloudbet.com/en/sports/australia/victoria-state-league-1-north-west/c2587>.

¹⁹¹ Gainsbury and Blaszczyński (2017 p., 490).

¹⁹² Hypestat, shybook.ag. <http://skybook.ag.hypestat.com/>.

¹⁹³ Hypestat, bovada.lv. <http://bovada.lv.hypestat.com/>; Hypestat, sportsbet.com.au <http://sportsbet.com.au.hypestat.com/>.

4.3.1 What is an ‘event’?

The first thing to consider is the insistence of the relevant states’ laws that, for a match-fixing offence to have occurred, it must have been lawful to bet on the event in question ‘under a law’ of an Australian jurisdiction.¹⁹⁴

Let us consider two sets of games, both of which have attracted the (seemingly exclusive) interest of offshore bookmakers. The first is the suburban soccer matches being offered on the Cloudbet site. The second is midweek community basketball matches such as those recently being offered on international betting sites without the permission of competition organisers.¹⁹⁵

A state like Victoria gives a sport’s approved controlling body the power to veto betting types. This is consistent with its commitments to the *National Policy on Match-Fixing in Sport*. As such, betting on almost any soccer match is permitted, thanks to the permission granted by Football Federation Australia.

However, Basketball Australia has chosen not to permit betting on matches below the country’s second-tier competitions. They have also signed integrity agreements with Australian bookmakers which stipulate this, and as such, these games are not available for betting with Australia bookmakers.¹⁹⁶

Regardless, placing a bet on such a competition may still be lawful, even if it cannot be done locally. This is because a state like Western Australia has not followed through with its commitments to the *National Policy on Match-Fixing in Sport* and has maintained its relaxed regulations which allow betting on such a competition.

Ironically, had it and other jurisdictions all implemented their commitments to this national policy, this competition’s legal protection against match-fixing may have been weakened.¹⁹⁷ Prosecutors would be left to argue that such betting was permitted under the *Interactive Gambling Act*, which seems ridiculous at first glance: one of the intents of

that legislation is to prohibit unlicensed bookmakers from accepting bets from Australian customers.

However, the *Interactive Gambling Act* does not prohibit the *placing* of bets; at the same time, match-fixing laws are concerned with events ‘on which it is lawful to bet’.¹⁹⁸ Therefore, if one can bet on an event without punishment, that action could be considered lawful, even if accepting that bet is a crime. Prosecutors would certainly hope this is the case.

The lawfulness of such betting with cryptocurrencies, as is possible on the Cloudbet site, will be examined in detail in the next section. However, it should be noted that while the Northern Territory has said it will ban the practice,¹⁹⁹ no such legislation has so far been passed either there or elsewhere. Therefore, on the surface at least, it would seem bets placed with cryptocurrencies are covered by the lawful-to-bet element of the relevant states’ acts in the same manner as fiat currency bets are.

4.3.2 What is a ‘bet’?

Having established that a vast number of sporting events are covered by match-fixing laws, the next step is examining the interplay between cryptocurrencies and other parts of these laws. After all, if a cryptocurrency is neither money, currency nor a tangible asset, can one still place a ‘bet’ with it?

In Nevada, a wager is defined as ‘a sum of money or representative of value that is risked on an occurrence for which the outcome is uncertain’,²⁰⁰ and a representative of value as ‘any instrumentality used by a patron in a game whether or not the instrumentality may be redeemed for cash’.²⁰¹ Under the USA’s *Unlawful Internet Gambling Enforcement Act*, a bet or wager may involve ‘the staking or risking’ of ‘something of value’ with the agreement ‘something of value’ will be returned ‘in the event of a certain outcome’.²⁰²

Australian law is not as explicit.²⁰³ For example, New South Wales’ *Crimes Act* merely states the definition of a bet includes the placing, acceptance and withdrawal of a

¹⁹⁴ See, e.g. *Crimes Act 1900* (NSW) s 193 J; *Crimes Act 1958* (Vic) s 195B.

¹⁹⁵ Kerr, J (2017) Under the radar: how the global gambling industry is encroaching on amateur sport ABC Radio National Background Briefing, 18 June 2017.

¹⁹⁶ Victorian Commission for Gambling and Liquor Regulation, Approved betting events. <https://www.vcglr.vic.gov.au/gambling/wagering-and-sports-betting/about-wagering-and-sports-betting/approved-betting-events>.

¹⁹⁷ Taken to their logical conclusion, Australia’s match-fixing laws have produced the curious situation where the protection of low-level competitions from the integrity threats presented by offshore betting sites would require these same competitions to make themselves available to domestic bookmakers. Lawmakers should give serious thought to removing the lawful-to-bet requirement from match-fixing laws. Ergo, if the Australian betting market is of little concern to international match-fixers, then it should not be relevant to match-fixing laws either.

¹⁹⁸ *Crimes Act 1900* (NSW) s 193J (emphasis added).

¹⁹⁹ Stensholt, John (2018) Bitcoin betting set to be banned by wagering authorities. Australian Financial Review (online), 4 February 2018. <https://www.afr.com/business/gambling/bitcoin-betting-set-to-be-banned-20180204-h0tfi9>.

²⁰⁰ *Nevada Revised Statutes* § 463.01962 (2013) (definition of ‘wager’).

²⁰¹ *Nevada Revised Statutes* § 463.01862 (2013) (definition of ‘representative of value’).

²⁰² *Unlawful Internet Gambling Enforcement Act*, 31 USC §§ 5361–5367 (2006) § 5362(A).

²⁰³ See, e.g. *Crimes Act 1900* (NSW) s 193H; *Crimes Act 1958* (Vic) s 195B.

bet, and the causing of these actions to take place.²⁰⁴ That state's *Unlawful Gambling Act* does not define betting, only *gambling*, which is 'gaming, betting or wagering'.²⁰⁵ According to the *Interactive Gambling Act*, a bet 'includes wager', but a wager is not defined.²⁰⁶

Of somewhat more use is the *Interactive Gambling Act*'s definition of a *gambling service*, which is, inter alia, 'a service for the conduct of a game' where 'the game is played for money or anything else of value' (and involves an element of chance).²⁰⁷ The *Unlawful Gambling Act* defines money as including 'any valuable thing or any security for money'.

Additionally, the *Macquarie Dictionary*'s definitions of a bet include 'the pledge as a forfeit to another who makes a similar pledge in return' and 'a pledge of something to be forfeited, in case one is wrong, to another who has the opposite opinion'.²⁰⁸ A wager is defined, in part, as 'something staked or hazarded on an uncertain event'.²⁰⁹

These beg the question: is a cryptocurrency, which 'survives purely in an intangible electronic medium',²¹⁰ a 'something'? (Or, more simply, a 'thing'?) This question needs to be considered in the light of *Yanner v Eaton*, in which it was found that property is not 'a thing', but is 'a degree of power...exercised over the thing'. Therefore, if cryptocurrency is property, it follows that it is the power that could be exercised over 'the thing', which is the cryptocurrency itself.²¹¹

While cryptocurrencies' place within the law is very much in its infancy, there is certainly good reason to assume that a bet placed with a cryptocurrency would be considered a bet, at the very least insofar as match-fixing is concerned. However, these laws should be amended to make this clear.

4.3.3 What is a 'financial advantage'?

Proceeding on the assumption that crypto-wagering is betting, attention can now turn to another element of the match-fixing laws: the necessity that a financial advantage be obtained, or that a financial disadvantage be caused to another.²¹²

²⁰⁴ *Crimes Act 1900* (NSW) s 193L.

²⁰⁵ *Unlawful Gambling Act 1998* (NSW) s 4 (definition of 'gambling').

²⁰⁶ *Interactive Gambling Act 2001* (Cth) s 4 (definition of 'bet').

²⁰⁷ *Interactive Gambling Act 2001* (Cth) s 4 (definition of 'gambling service').

²⁰⁸ *Macquarie Concise Dictionary* (Macquarie, 2012) 112.

²⁰⁹ *Macquarie Concise Dictionary* (Macquarie, 2012) 1416.

²¹⁰ Huang (2015, p. 2098).

²¹¹ *Yanner v Eaton* [1999] HCA 53 [17].

²¹² See, e.g. *Crimes Act 1900* (NSW) s 193N; *Crimes Act 1958* (Vic) s 195C.

The *Macquarie Dictionary* defines financial as: 'of or relating to monetary receipts and expenditure; having to do with money matters; pecuniary' and 'commonly engaged in dealing with money and credit'.²¹³ Similarly, the definitions of pecuniary all relate to money.²¹⁴ A defendant could quite rightly argue that since cryptocurrencies are not considered money in Australia, their activity cannot be said to have allowed them to obtain a financial advantage.

However, quite cleverly, these laws also make it an offence to cause financial disadvantage to others. Consider a case where match-fixers have manipulated the AFL Grand Final. Everyone who bet on this game would be impacted by the fixers' actions, and many will have suffered a financial disadvantage when they lose their money on the scripted result. Similarly, the fact that many other innocent third parties obtained a financial advantage through these actions, when the result went their way, is also cause for an offence.

But what if a smaller game, such as those on the Cloudbet site, were only being offered on crypto-wagering sites? Since bitcoin is not money, under definitions provided above, no person has been monetarily (and therefore financially) advantaged or disadvantaged. What they have lost is property. That said, if a single person has placed a bet from Brazil, where bitcoin is considered money, an offence would seemingly have taken place. (But good luck trying to find that Brazilian gambler).

To ensure this part of the legislation is relevant to betting that is undertaken with cryptocurrencies, the meaning of financial advantage and disadvantage could be broadened to include wins and losses of property and/or cryptocurrency.

4.4 International approach

This analysis has demonstrated a number of problems with the interaction between crypto-wagering and current laws against match-fixing. This can be amplified when low-tier matches are involved. Such issues could be addressed with amendments clarifying that (a) crypto-wagering is a form of betting and (b) that wins on such sites constitute a financial advantage. Amendments should also ensure that match-fixing laws cover all games, irrespective of the legality of betting on these games.

But would such changes stop an international organised crime syndicate from fixing matches for the purpose of defrauding the crypto-wagering market? Probably not, given the regularity with which these syndicates disregard laws around fiat currency match-fixing.

²¹³ *Macquarie Concise Dictionary* (Macquarie, 2012) 457.

²¹⁴ *Macquarie Concise Dictionary* (Macquarie, 2012) 457.

Legislators should, therefore, also consider more lateral approaches to the issue. For example, bringing the crypto-wagering market onshore, where it can be regulated, could transform these sites from the regulatory black holes they are at present into regulatory choke points. In this way, they would mirror the position that cryptocurrency exchanges hold in the fight against money laundering. While authorities may never be able to establish the owner of a bitcoin per se, if betting sites are required to run appropriate KYC identity checks, as per anti-money laundering legislation, it can be seen who used the site to place the suspicious bet. In Australia, these sites would also be required to sign integrity agreements that facilitate information sharing around suspicious betting.

This approach would help catch small-time local fixers using local betting sites. However, international syndicates would continue to use unregulated offshore sites. As the research in this essay has demonstrated, these sites seem focussed on the USA, where the *Unlawful Internet Gambling Enforcement Act* and other laws limit opportunities to bet online.

The recent US Supreme Court decision allowing states to permit sports betting will have some impact here. But this impact will be muted, since the federal *Wire Act* still prevents betting across borders, and only a handful of states may actually allow a move to online sports betting.

It would be interesting to see whether a further easing of US online gambling laws would reduce the liquidity of the offshore crypto-wagering markets, as the Australian experience suggests most gamblers much prefer to bet with locally licensed operations.²¹⁵ A reduction in the size of this market would make fixing through these channels less lucrative and more difficult to disguise.

Therefore, it may be the case that the best way to protect the integrity of Australian sport from the dangers posed by the crypto-wagering market is to lobby for changes to the laws of another country. This situation would highlight

how problems of Internet governance require a global approach.

5 Conclusion

The law struggles to stay relevant in the face of technological advances. This essay has demonstrated a number of flaws in Australia's current legislative position on cryptocurrencies, match-fixing and online gambling, and the interplay between them. For the protection of the integrity of sport, the Commonwealth's *Interactive Gambling Act* and various state criminal codes should be amended to ensure they are pertinent to betting conducted via crypto-wagering sites.

Australia could also consider bringing the crypto-wagering industry onshore, a move that would encourage crypto-wagering to occur on sites licensed in a country with appropriate 'know your customer' oversight. In this way, crypto-wagering sites could be the regulatory choke points that cryptocurrency exchanges are in relation to money laundering.

In the Internet age, no country is an island, not even Australia, and legislators cannot take an insular approach to such issues. Given the US focus of crypto-wagering sites, it can be argued that the integrity of Australian sport may be best served by the relaxation of US prohibitions against online sports betting. This move could undercut the demand for these sites. It remains to be seen whether the changes currently underway in the USA will be enough to do this.

Appendix 1

See Table 2.

²¹⁵ Australian Government: Department of Social Services (2016, p. 49).

Table 2 Analysis of crypto-wagering sites

Sportsbook	Location	Sports branding	Unique daily visitors	Top-level domain	Server location	SBR rating	Online since	Accept Aust bets?
Bookmaker	Costa Rica	Basketball, ice hockey, gridiron, baseball, soccer	5950	.eu	Costa Rica	A+	2000	Yes
5Dimes	Costa Rica	None	21,950	.eu	USA	A+	2000	Yes
BetOnline	Panama	Basketball, gridiron	13,100	.ag	Panama	A+	2001	Yes
Bovada	–	Basketball, ice hockey, basketball	51,000	.lv	Canada	A+	2011	–
Heritage sports	Costa Rica	Gridiron	1650	.eu	Costa Rica	A+	2001	Yes
BetDSI	Costa Rica	Gridiron	7600	.eu	USA	A	2001	Yes
SportsBetting	Panama	Gridiron	4879	.ag	Panama	A	1998	Yes
JustBet	Panama	Gridiron	145	.cx	Costa Rica	A	2000	Yes
Intertops	Antigua	Gridiron	12,100	.eu	Antigua	A	1996	Yes
YouWager	Costa Rica	Gridiron	650	.eu	Costa Rica	A	1999	Yes
WagerWeb	Costa Rica	Gridiron	140	.ag	Costa Rica	B+	1999	Yes
GTbets	Curacao	Gridiron, horses	975	.eu	UK	B+	2011	Yes
Nitrogen sports	Costa Rica	Gridiron	8050	.eu	USA	B+	2012	Yes
JazzSports	Costa Rica	Gridiron, horses	100	.ag	USA	B	2000	Yes
BetPhoenix	Costa Rica	Gridiron, basketball	500	.ag	USA	B	2006	Yes
Skybook	Costa Rica	Gridiron	15	.ag	USA	B	1998	Yes
BetMania	Costa Rica	Basketball	45	.ag	USA	B	2004	Yes
Anonibet	United Kingdom	None	170	.com	USA	C+	2011	Yes
BitcoinRush	–	Gridiron	1050	.io	USA	C+	2013	Yes
HRWager	Costa Rica	Gridiron	150	.com	USA	C+	2012	Yes
Cloudbet	Montenegro	Gridiron, basketball, soccer	9850	.com	USA	C+	2013	Yes
Betcoin	–	None	1850	.com	USA	C+	2013	Yes
Sportsbet.io	Curacao	Soccer	2000	.io	USA	C+	2016	Yes
MyBookie	Costa Rica	Gridiron	825	.ag	Canada	C	2014	Yes
Bodog sportsbook	Antigua	Gridiron, ice hockey, basketball	6850	.eu	Canada	A+	2003	–
Betcris	Costa Rica	Soccer	10,450	.com	Costa Rica	A+	2000	Yes
The Greek Sportsbook	Jamaica	Gridiron	800	.com	USA	A+	1998	Yes
Sportbet	Costa Rica	Gridiron, basketball, soccer, ice hockey	1800	.com	USA	A	1997	Yes
Vietbet	Costa Rica	Gridiron	448	.eu	Costa Rica	A	2002	Yes
Galaxy Sport	Costa Rica	–	–	–	A	A	2014	Yes
IslandCasino	Costa Rica	Gridiron, soccer	632	.com	Costa Rica	A-	1997	Yes
BetAnySports	Costa Rica	Gridiron, baseball	390	.eu	Costa Rica	A-	2001	Yes
ChineseBookie	Costa Rica	Baseball	20	.eu	Netherlands	A-	2005	Yes
BetDNA	Costa Rica	–	–	–	–	D+	2012	Yes
BetOwi	Costa Rica	Gridiron	–	.com	Taiwan	D	2011	Yes
Sportsbook.com	Antigua	Gridiron	1197	.com	Antigua	D-	2000	–

Sources: For Location, SBR Rating, Online Since and Accepts Australian Bets, the relevant review page at Sportsbook Review, *Betting Sites* <https://www.sportsbookreview.com/betting-sites/>; For Unique Daily Visitors and Server Location, by searching the relevant site at Hypestat <http://www.hypestat.com>; For Branding and Top Level Domain, by visiting the sites

Appendix 2

See Fig. 1.

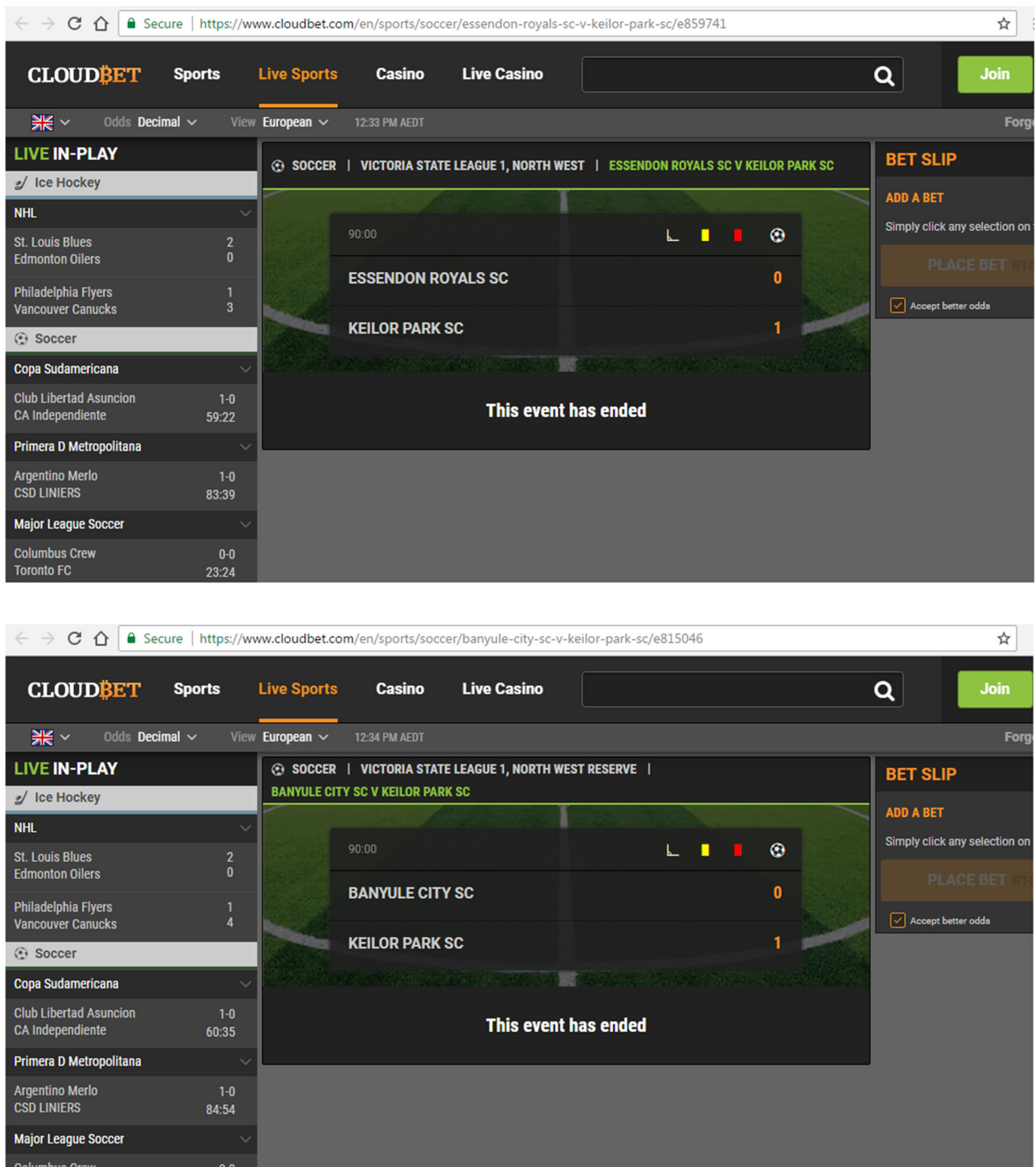


Fig. 1 Screenshots of inactive betting pages from the cloudbet website. *Source:* Cloudbet, *Essendon Royals v Keilor Park* <https://www.cloudbet.com/en/sports/soccer/essendon-royals-sc-v-keilor-park-sc/e859741>. Cloudbet, *Banyule City and Keilor Park* <https://www.cloudbet.com/en/sports/soccer/banyule-city-sc-v-keilor-park-sc/e815046>

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