

The Senate

Environment and Communications
References Committee

Gaming micro-transactions for chance-based
items

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Chapter 1

Introduction

Referral and terms of reference

1.1 On 28 June 2018, the Senate referred the following matter to the Environment and Communications References Committee for inquiry and report by 17 September 2018:

The extent to which gaming micro-transactions for chance-based items, sometimes referred to as 'loot boxes', may be harmful, with particular reference to:

- (a) whether the purchase of chance-based items, combined with the ability to monetise these items on third-party platforms, constitutes a form of gambling; and
- (b) the adequacy of the current consumer protection and regulatory framework for in-game micro transactions for chance-based items, including international comparisons, age requirements and disclosure of odds.¹

1.2 On 17 September 2018, the Senate granted an extension of time to report until 17 October 2018.²

1.3 On 15 October 2018, the Senate granted an extension of time to report until 27 November 2018.³

Conduct of the inquiry

1.4 In accordance with its usual practice, the committee advertised the inquiry on its website and wrote to relevant individuals and organisations inviting submissions. The date for receipt of submissions was 27 July 2018. The committee received 42 submissions, which are listed at Appendix 1.

1.5 The committee held public hearings in Melbourne on 17 August 2018, and Canberra on 17 September 2018.

1.6 The list of witnesses who participated in public hearings is at Appendix 2.

1 *Journals of the Senate*, No. 105, 28 June 2018, p. 3367.

2 *Journals of the Senate*, No. 118, 17 September 2018, p. 3766.

3 *Journals of the Senate*, No. 122, 15 October 2018, p. 3895.

1.7 The public submissions, additional information received and *Hansard* transcript are available on the committee's website at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Gamingmicro-transactions

Acknowledgment

1.8 The committee would like to thank the organisations and individuals who provided evidence to the inquiry.

Structure of the report

1.9 This report comprises 5 chapters as follows:

- Chapter 1 provides an introduction and overview of gaming micro-transactions for chance-based items, recent public concern regarding the issue, and international responses;
- Chapter 2 explores whether gaming micro-transactions for chance-based items constitute gambling under Australian regulatory frameworks;
- Chapter 3 examines the evidence received that gaming micro-transactions for chance-based items meet the psychological definition of gambling, and the potential for harms associated with interaction with these mechanisms;
- Chapter 4 outlines possible government responses to the issue; and
- Chapter 5 provides a committee view and recommendations.

Introduction to gaming micro-transactions for chance-based items

1.10 Many video games incorporate 'micro-transactions', a broad concept extending to any model that provides a consumer with the option of making small purchases within a game or other application. Micro-transactions are typically made using game points, real-world money, or both.⁴

1.11 Micro-transactions may involve the direct purchase of specific in-game content or features, including items (i.e. outfits, vehicles, weapons, tools, etc.), mission or quest packs, new game modes and extra play time, among other things. Micro-transactions may also involve the purchase of a virtual item that contains a variable selection of other virtual items (chance-based items), which are sometimes called 'loot boxes', 'loot crates', 'mystery boxes', 'prize crates' and other similar names.⁵

1.12 Gaming micro-transactions for chance-based items, called loot boxes for the purposes of this inquiry, are included in some video games to provide players with a way to obtain virtual items for in-game use. The items in loot boxes vary, but typically

4 Interactive Games and Entertainment Association (IGEA), *Submission 3*, p. 5.

5 IGEA, *Submission 3*, p. 5.

include collectibles, character outfits, game points, player bonuses, and weapon camouflages or 'skins'. Some virtual items are functional 'sidegrades' or upgrades that players may use functionally in game play (i.e. useful tools, armour, weapons or abilities), whereas others are simply cosmetic items.⁶

1.13 A list of possible items contained in a loot box may be, but is not always provided to players. The specific item received is randomly selected once payment is authorised. A common variation is to periodically provide players with boxes for free but require them to purchase a 'key' to open the box. Virtual items can hold significant value to players based on their potential to facilitate or assist game play, or provide desirable cosmetic features.⁷

1.14 There are a number of types of loot boxes available in games. These can be categorised according to the method of acquisition, and whether the items contained within the loot box can be monetised. Methods of acquisition are as follows:

- **Game-play** – loot boxes are awarded to players as a result of game-play achievements, such as hours played or missions completed.
- **Game-play with purchasable key** – loot boxes are provided to players during game-play, but players must purchase a key to open the loot box.
- **Purchase** – players purchase a loot box and are able to open it to obtain the (random) items within.

1.15 Loot boxes have been available in a number of social games (largely free to play mobile games) as well as video games produced by mid-sized or major publishers (so called AAA games) for a number of years. For example, *Team Fortress 2* released in 2011, introduced the concept of crates and item trading, while *Counter-Strike: Global Offensive* (CS:GO) introduced weapon crates in 2013. Since then, there has been an increase in the inclusion of loot boxes in games, most notably since the release of the beta version of *Overwatch* in 2016. Mr Blake Mizzi, Board Member, Game Developers' Association of Australia (GDAA) explained:

For decades, a lot of games have been offering a loot box or similar mechanic. Some of the earliest games in gaming history, for the last 20 years, have been offering a similar system of juicy rewards for players in digital games. It is only recently, however, that they have been allowed to be purchased with real-world money beyond the initial game purchase. The most popular games identified these days almost all include a loot box mechanic of some sort, and this is about making digital items available. But most of them don't make digital items available for sale outside the game.⁸

6 IGEA, *Submission 3*, p. 5.

7 Australian Institute of Family Studies, *Submission 10*, pp. 1–2.

8 Mr Blake Mizzi, Game Developers' Association of Australia (GDAA), *Proof Committee Hansard*, 17 August 2018, p. 9.

1.16 The rarity of some virtual items and the emergence of third-party online sites acting as exchange markets have also led to players selling some in-game items for thousands of dollars. In this context, virtual items are operating as de-facto virtual currencies, and have subsequently been used as virtual betting chips on third-party gambling websites, with significant amounts of real-world currency being exchanged.⁹

1.17 So-called 'skin gambling' refers to the use of in-game items for online gambling through a variety of mechanisms including third-party websites. It should be noted that the expansion of these third-party sites has served to encourage players to stake money on loot boxes for the chance to obtain a rare item.¹⁰

Importance of loot boxes

1.18 Australia's video game industry largely focuses on the production of games of 'narrative storytelling, problem solving, puzzle solving, escapism, role playing, sports games, games about superheroes, board games, card games, strategy and educational games'. There are over 200 game studios in Australia and the industry employs approximately 1000 people across the country. It is estimated to comprise three to four per cent of the global industry which is worth over \$100 billion.¹¹

1.19 The video game industry, like other creative industries, faces economic challenges from piracy and arbitrage and as such, has had to develop a range of revenue streams beyond retail sales.¹² The following sections outline the evidence received by the committee in relation to the importance of in-game and in-app purchases, including loot boxes, in ensuring the economic viability of the industry.

Revenue streams

1.20 Loot boxes represent the evolution of revenue streams in the gaming industry. Previously, game titles were sold as a complete stand-alone product. As a title gained popularity, a sequel or 'expansion pack' may have been offered, however the sale of a title was largely considered a single transaction without ongoing interaction between the purchaser and the developer. As the industry evolved, developers began offering Downloadable Content (DLC) which, though smaller than expansion packs previously offered, would nevertheless offer new characters, costumes, additional missions or storylines.¹³

9 Australian Institute of Family Studies, *Submission 10*, p. 2.

10 Australian Institute of Family Studies, *Submission 10*, p. 2.

11 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 9.

12 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 10.

13 Mr Alex Knoop, *Submission 12*, pp. 5–6.

1.21 With the rise of online gaming, developers began charging users a subscription fee to play online games such as *World of Warcraft* and other Massive Multiplayer Online Role-Playing Games (MMORPGs or MMOs). These games continually add content to keep players engaged.¹⁴

1.22 At the same time, virtual currencies emerged as another means for developers to earn additional revenue from titles. As such, players were given the opportunity to purchase in-game virtual currency using real-world currency, instead of earning virtual currency through game-play. This proved popular with users who had less time to spend participating in otherwise time-intensive games.¹⁵

1.23 The profitability of virtual currencies led to the development of free-to-play (F2P) games which are completely free to play, but players are encouraged to make in-game purchases using real-world money or face excessive hours of game play to make progress. Popular examples include *Candy Crush*, *League of Legends*, and *Team Fortress 2*.¹⁶ Mr Mizzi, GDAA, told the committee:

The purest form of the successful in-app purchase game mechanic comes in the free-to-play model, which is a business model where players can download a game for free and play it indefinitely. It's at the player's discretion if they choose to purchase an in-game item or a cosmetic item that might help them to express their character online or just customise their character—you could buy a hat! There are also in-game mechanics or in-app purchases around energy mechanics to allow players to progress through a game faster.¹⁷

1.24 As an alternative revenue stream, in-app and in-game purchases have proven to be remarkably successful. For example, in 2018, Juniper Research estimated that the size of the global gaming industry was US\$117 billion, and 25 per cent of that value was generated through loot boxes.¹⁸

1.25 Further, Juniper Research estimated that without regulatory intervention, loot boxes will come to form 47 per cent of industry revenue by 2022. It projected the global video game industry's revenue to be US\$160 billion, with US\$75 billion being generated by chance-based micro-transactions.¹⁹

14 Mr Alex Knoop, *Submission 12*, p. 6.

15 Mr Alex Knoop, *Submission 12*, p. 6.

16 Mr Alex Knoop, *Submission 12*, p. 6.

17 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 10.

18 Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 7.

19 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, pp. 8–9.

Economic challenges

1.26 The committee heard evidence that over the past two decades, retail prices have not increased, however the costs associated with the production and development of video games have increased significantly. Mr Mizzi, GDAA, explained:

Retail prices have been flat for about two decades so you could argue that they've gone down while the development budgets for games have gone into the billions of dollars. In some cases they dwarf the largest film productions. So AAA games today, for your \$60 or \$100 outlay, an EB Games [game] can provide hundreds of hours of game play. But the costs of development have increased, so too have the online development costs for deployment and the online support costs because these games now run those games as a service.²⁰

1.27 As such, 'in-game purchases such as the loot box mechanic have become a core revenue prop' ensuring the viability of the video game industry.²¹ Mr Mizzi explained that developers and publishers now rely on the purchases of a 'very small playing percentage of players' to support the industry.

1.28 However, Mr Mizzi told the committee that the in-app or in-game purchase model is viewed as a 'fairer system' where ongoing revenue is only collected from 'those willing to pay, and those who have the discretionary income to pay for these items'.²²

Public concern

1.29 As noted above, loot boxes have been included in video games for many years. However, Electronic Arts (EA) released *Star Wars Battlefront II* in 2017 containing a new type of loot box with items which provide a player with advantages such as stronger characters or items which substantially increase the damage, health and fire rate of the player's characters. The introduction of this 'pay to win' approach led to widespread outrage in the gamer community and public pressure influenced EA to remove paid loot boxes from this game.²³ Mr Mizzi, GDAA explained:

...key iconic Star Wars characters—would be available from the game purchase; but a lot of those were locked behind further long-form grind mechanics, where a player would have to complete long tasks, over a long period of time, to unlock these rewards. But the economy inside the game allowed a player to shortcut these mechanics with real money—so you could buy Darth Vader now or you could play 60 hours to unlock Darth Vader. This process, which is hugely disliked by gamers around the world, is called nickel and diming.

20 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 10.

21 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 10.

22 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 10.

23 Attorney-General and Minister for Justice (Qld), *Submission 1*, p. 2.

Also, I think the combining of the *Star Wars* franchise and the *Battlefront* franchise—which is huge—was a huge media draw, so it gained a lot of attention. It is also my belief that the outrage around these loot boxes really hit a nerve in western audiences. The pay-to-win mechanic is actually quite accepted in eastern cultures. I am not advocating that that is right. It is really around that pay-to-win mechanic. So this brought loot boxes to the wider mass media consciousness and has triggered a lot of this healthy discussion.²⁴

1.30 The criticism of the inclusion of 'pay to win' loot boxes was echoed by submitters with some describing their inclusion as a decision motivated by greed. For example, Mr Samuel Drew stated:

Gaming micro-transactions have been a plague to the online gaming community for a very long time but has recently gained traction as a result of greedy company decisions that allow online players to gain an advantage over others by spending extra money on said micro-transactions.²⁵

1.31 Concern was also raised that the inclusion of loot boxes has damaged the quality of games, with developers focusing on raising revenue rather than creating engaging content.²⁶

1.32 Throughout 2017 and 2018, public backlash led to games developers either removing existing loot boxes from games, or releasing new games without loot boxes. For example:

- *Shadow of War* removed its loot boxes;
- *Far Cry 5* and *Monster Hunter World* have minor micro-transactions, but no loot box elements at all, and *God of War* and *Spider-Man* are using the lack of loot boxes as a marketing tool;
- *Fortnite*, currently the most popular game globally, has a micro-transaction system that is entirely loot box-free. The Battle Pass lets players pay \$10 a season for earned cosmetic rewards, and those cosmetics can also be flat-purchased outright without randomisation; and
- Blizzard games *Hearthstone* and *Overwatch*, dramatically increased the quality of drops for players, disallowing legendary card/skin duplicates, so players could amass more of the best items more quickly.²⁷

24 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 9.

25 Mr Samuel Drew, *Submission 15*, p. 1.

26 Name withheld, *Submission 13*, p. 1.

27 Paul Tassi, 'From "Battle Front 2" to "Fortnite", The War Against Loot Boxes is Being Won in 2018', 11 April 2018, <https://www.forbes.com/sites/kpmg/2018/07/19/the-great-rewrite-the-future-of-work-in-an-automated-world/#650b95221105>, (accessed 9 August 2018).

1.33 Public concern has also arisen regarding the popularity of games containing loot boxes with players under the age of 18. In particular, the concern that children are being exposed to in-game gambling or simulated gambling which leaves them vulnerable to gambling-related harms. The Office of the eSafety Commissioner stated:

Debates have to date centred on the addictive nature of loot boxes, as well as their exploitative and manipulative design features. As an Office, we are particularly aware of growing community concern and debate that this feature may normalise spending behaviour and potentially act as a gateway to more traditional forms of 'online gambling'.²⁸

1.34 The media coverage and public debate regarding loot boxes was also noted by the Australian Communications and Media Authority (ACMA) with Ms Jonquil Ritter, Executive Manager, Content Safeguards Branch, stating that during November 2017, the ACMA received a number of complaints and inquiries as a result of significant media coverage of the gambling-like mechanisms in popular games such as *Star Wars Battlefront II*. Ms Ritter also stated that since August 2017, 15 per cent of its complaints and inquiries over the 12 month period to August 2018 were in relation to loot boxes and skin gambling.²⁹

Skin gambling

1.35 Concern regarding the spread of skin gambling, or the use of virtual items in online betting, has also driven much of the debate in relation to the need to regulate loot boxes.

1.36 The skin gambling market was estimated to be worth approximately US\$7.4 billion in 2016.³⁰ It is estimated that tens of thousands of people make bets using in-game items, particularly those obtained from CS:GO, on third-party websites. The items which are won and lost have real-world value as they can be bought and sold on the Steam Community Market offered by CS:GO's publisher, Valve.³¹

1.37 There are a range of ways that users are able to skin gamble including:

- esports betting where users can place bets on CS:GO matches using CS:GO skins;
- mystery boxes where players are presented with loot boxes that mimic the experience of opening a loot box in CS:GO, and where the items can be sold on the Steam Community Market; and

28 Office of the eSafety Commissioner, *Submission 34*, p. 1.

29 Ms Jonquil Ritter, ACMA, *Proof Committee Hansard*, 17 August 2018, p. 43. See also ACMA, *Submission 26*, p. 1.

30 Mr Alex Knoop, *Submission 12*, p. 18.

31 Evan Lahti, 'CS:GO's controversial skin gambling, explained', *PC Gamer*, July 20 2016, <https://www.pcgamer.com/csgo-skin-gambling/>.

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- public pots where players deposit skins into a shared pot for a specific amount of time, and where the higher total value of the skins a player deposits, the greater the chance of winning the pot.³²

1.38 Valve has undertaken a number of legal actions against third-party skin gambling sites, and there have been a number of controversies regarding betting on esports using skins including instances of match-fixing.

1.39 Much of the public concern however has been regarding the exposure of children and vulnerable persons to this form of online gambling through engagement with loot boxes, and the potential for gambling-related harms to be experienced.

International regulatory responses

1.40 As a result of public concern, regulators around the world have begun to consider whether loot boxes should be considered a form of gambling, and regulated accordingly. International regulators have come to differing conclusions and implemented a range of responses.

1.41 The following sections outline the approaches taken in a number of jurisdictions.

Denmark

1.42 The Danish Gambling Authority, in response to an increased number of public inquiries, issued a public statement on loot boxes clarifying when a game would fall under the auspices of the Danish *Gambling Act*. The statement noted that games must be licensed when three criteria are met: there must be a deposit; there must be an element of coincidence; and there must be a prize. Where the prize is a virtual item, it must be 'able to translate into financial terms'.³³

1.43 The Danish Gambling Authority examined a number of well-known video games containing loot boxes and observed that where virtual items cannot be sold or otherwise converted into money, the *Gambling Act* would not apply. However, it stated that where items can be sold on third-party websites and 'thus converted into money' then the *Gambling Act* would apply.³⁴

1.44 The Gambling Authority concluded that loot boxes must be considered 'individually as it is not possible to generally assess whether the items won in a loot

32 Evan Lahti, 'CS:GO's controversial skin gambling, explained', *PC Gamer*, July 20 2016, <https://www.pcgamer.com/csgo-skin-gambling/>.

33 ACMA, *Submission 26*, Attachment 1, p. 2.

34 ACMA, *Submission 26*, Attachment 1, p. 2. Citing: Danish Gambling Authority, *Statement about loot boxes/crates*, 29 November 2017, <https://spillemyndigheden.dk/en/news/statement-about-loot-boxes-loot-crates>.

box can be converted into money. Therefore, it cannot be excluded that loot boxes may in some cases be covered by the Act on Gambling'.³⁵

1.45 The Danish Gambling Authority also recognised the importance of protecting children and young people, and emphasised the importance of parents taking an interest in the games played by their children and discussing responsible gaming behaviour.³⁶

Belgium

1.46 The Belgium Gaming Commission's Secretariat, Mr Peter Naessens, published a research report on loot boxes in April 2018. The report applied the definition of a game of chance as established under the Belgium *Gaming and Betting Act*. Mr Naessens concluded that:

The paid loot boxes in the examined games *Overwatch*, *FIFA 18* and *Counterstrike: Global Offensive* fit the description of a game of chance because all of the constitutive elements of gambling are present (game, wager, chance, win/loss). The loot box system in *Star Wars Battlefront 2* prior to the official release of the game also fits this definition, but this is no longer the case today.³⁷

1.47 Mr Naessens made a suite of recommendations to the Belgium Gaming Commission, distributors and game developers, and entities which license brands to game developers (e.g. FIFA and Disney). These recommendations included a ban on minors buying games containing paid for loot-boxes, age verifications for in-game purchases, permits be developed for games of chance in video games, education for parents and children, and the regulator having the power to inspect games following complaints.³⁸

1.48 Mr Naessens also recommended increased transparency regarding odds, giving the Belgium Gaming Commission complete control of the number generator used for loot boxes, and the introduction of spending limits.³⁹

35 ACMA, *Submission 26*, Attachment 1, p. 2. Citing: Danish Gambling Authority, *Statement about loot boxes/crates*, 29 November 2017, <https://spillemyndigheden.dk/en/news/statement-about-loot-boxes-loot-crates>.

36 ACMA, *Submission 26*, Attachment 1, p. 3. Citing: Danish Gambling Authority, *Statement about loot boxes/crates*, 29 November 2017, <https://spillemyndigheden.dk/en/news/statement-about-loot-boxes-loot-crates>.

37 ACMA, *Submission 26*, Attachment 1, p. 1.

38 ACMA, *Submission 26*, Attachment 1, p. 1.

39 ACMA, *Submission 26*, Attachment 1, p. 2.

The Netherlands

1.49 The Netherlands Gaming Authority (NGA) also conducted a study into loot boxes. It found that four of ten games assessed contravened Dutch law. It stated:

These are the loot boxes in games where the in-game goods from the loot boxes are transferable. When opening loot boxes, the consumer cannot influence the outcome. Those games that feature a combination of in-game goods that can be traded and the obtaining of these goods through loot boxes fall under Article 1 of the *Betting and Gaming Act*. As a licence cannot be issued for this offering under the applicable legislation, these loot boxes are prohibited in the Netherlands.⁴⁰

1.50 The Dutch *Betting and Gambling Act* defines gambling as activities where there is an opportunity to compete for prizes and premiums, and where participants are unable to exercise a dominant influence. The NGA determined that when opening loot boxes, players cannot influence the outcome.

1.51 It also assessed that where virtual items are transferable, they have potential economic value and this meets the first requirement that players compete for prizes or premiums. The NGA told the committee that:

Prizes are defined as all goods to which economic value can be assigned that accrues to the participants in the games of chance by virtue of their participation. Where they do not exist in cash, prizes shall be taken into consideration at their economic value. Prizes can also be intangible game outcomes (items) that represent an economic value. When trading of items between players is possible, items represent a potential economic value. In practice, we see that items sometimes represent a value of thousands of euros.⁴¹

1.52 The NGA also noted the addiction risk potential associated with loot boxes and described the integration of loot boxes into games of skill without the corresponding addiction prevention measures and provisions to be inconsistent with Dutch gambling policy. The NGA stated:

According to our analyses, loot boxes have, on average, an addiction potential between moderate and high. A lot of loot boxes have integral elements that are similar to slot machines. Loot boxes with a higher score are often comparable with blackjack or roulette in terms of addiction potential. Loot boxes with a lower score are comparable with small-scale bingo in terms of addiction potential.

40 ACMA, *Submission 26*, Attachment 1, p. 4. See also Additional Information, The Netherlands Gambling Authority – Regulatory approach to loot boxes, p. 1.

41 Additional Information, The Netherlands Gambling Authority – Regulatory approach to loot boxes, p. 1.

A very large group of minors (75% - 95%) play video games. This group can currently be exposed to loot boxes. The risk of gambling addiction in this group is higher than in other groups.

The integration of loot boxes into games of skill provides a low threshold for playing a game of chance. This integration creates a mixture of games of chance and games of skill in an environment that is comparable, in physical terms, with the low threshold of the hotel and catering industry. Such mixing at these locations was prohibited in the Netherlands in the 1990s to reduce exposure to games of chance and to protect minors.⁴²

1.53 The NGA noted that it broadly has the power to impose a fine or other sanction such as an Administrative Order for incremental penalty payments of €30,000 or 10 per cent of a company's world-wide turnover in the event of non-compliance with its determinations. It also noted that if administrative enforcement does not work then the NGA can appeal to the Public Prosecution Service to prosecute criminal proceedings.⁴³

France

1.54 In November 2017, a French Senator wrote to the *Autorité de régulation des jeux en ligne* (ARJEL), the French online gambling regulator, in relation to loot boxes. In response, the President of ARJEL, Mr Charles Coppolani, outlined three issues which loot boxes raise. These issues were:

- consumer protection rights with respect to micro-transactions which are added after the game's original purchase, and of which players are not clearly informed;
- tracking in-game spending with Coppolani contrasting loot boxes with pay-to-win micro-transactions where players know what they are purchasing; and
- the issue of converting virtual items into something of real-world value.⁴⁴

1.55 ARJEL expanded on its position in 2018 and examined the definition of gambling under French law which requires a stake, chance and a prize. ARJEL concluded that given the legal definition of gambling, not all loot boxes can be qualified as gambling, however it is different where it is possible to monetize virtual items. ARJEL further stated that the 'legality of this type of game is arguable when the prize may be transferred out of the platform and when the gaming editor enables the use of prizes won elsewhere than in the environment of the platform'.⁴⁵

42 Additional Information, The Netherlands Gambling Authority – Regulatory approach to loot boxes, p. 2. See also ACMA, *Submission 26*, Attachment 1, pp. 4–5.

43 Additional Information, The Netherlands Gambling Authority – Regulatory approach to loot boxes, p. 3. See also Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 4; Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 4.

44 ACMA, *Submission 26*, Attachment 1, p. 3.

45 ACMA, *Submission 26*, Attachment 1, p. 3.

1.56 More broadly, ARJEL noted that regardless of meeting legal definitions of gambling, loot boxes challenge the public policy objectives that underpin French gambling policy. In particular, ARJEL noted: the lack of age verification which results in minors being able to play games with loot boxes; loot boxes introducing minors to gambling-like elements; and a lack of transparency with respect to the random number generator used in loot boxes.⁴⁶

Germany

1.57 Germany's Federal Review Board for Media Harmful to Minors (BPjM) issued a statement regarding loot boxes in October 2017. It noted that risks posed by loot boxes lie in how game mechanics function rather than the content of games themselves. BPjM noted that loot boxes pose new challenges to regulators seeking to protect minors from harm and stated that it was working other agencies to develop a child and youth policy strategy which would encompass loot boxes.⁴⁷

1.58 In February 2018, the Commission for the Protection of Youth in the Media (KJM) also issued a statement on loot boxes. It indicated that some loot boxes may contravene Germany's prohibition on direct advertisement appeals to purchase products directed at minors.⁴⁸

United Kingdom

1.59 In October 2017, the UK's Parliamentary Under Secretary of State for Sport and Civil Society responded to a written question on notice regarding protecting children and vulnerable adults from harm associated with gambling and video games. The answer stated that:

Where items obtained in a computer game can be traded or exchanged outside the game platform they acquire a monetary value, and where facilities for gambling with such items are offered to consumers located in Britain a Gambling Commission licence is required. If no licence is held, the Commission uses a wide range of regulatory powers to take action.⁴⁹

1.60 The UK Gambling Commission issued further guidance on loot boxes in November 2017 and stated that in determining whether loot boxes meet the definition of gambling under UK law, the key consideration is:

...whether in-game items acquired 'via a game of chance' can be considered money or money's worth. In practical terms this means that where in-game items obtained via loot boxes are confined for use within the game and

46 ACMA, *Submission 26*, Attachment 1, p. 3.

47 ACMA, *Submission 26*, Attachment 1, pp. 3–4.

48 ACMA, *Submission 26*, Attachment 1, p. 4.

49 ACMA, *Submission 26*, Attachment 1, p. 5.

cannot be cashed out it is unlikely to be caught as a licensable gambling activity. In those cases our legal powers would not allow us to step in.⁵⁰

1.61 The UK Gambling Commission also noted that where activities don't meet the legal definition of gambling, but could still potentially cause harm to children, it is the job of the regulator to ensure that children are protected through other measures such as age verification requirements.⁵¹

United States

1.62 Responses to loot boxes in the United States have included self-regulatory initiatives, as well as state-based legislative proposals.

1.63 The Entertainment Software Rating Board (ESRB) is a self-regulatory body responsible for assigning rating for video games and apps sold in the US and Canada. In October 2017, it declared that it did not consider loot boxes to be gambling. However, in February 2018, it launched an initiative to assign an 'in-game purchase' label to physical copies of video games to aid parents. It also simultaneously launched a website to assist parents in tracking children's in-game spending.⁵²

1.64 States such as Hawaii, Washington state, Minnesota and California have introduced bills related to the regulation of loot boxes. These bills have not been passed to date.⁵³

China

1.65 In 2016, it was reported that China's Ministry of Culture requires video games containing loot boxes to provide information about the odds of receiving loot box items.⁵⁴

New Zealand

1.66 In December 2017, the Department of Internal Affairs' Gambling Compliance Office issued a media statement to the effect that loot boxes do not meet the definition of gambling under New Zealand law. The statement noted:

Gamers do not purchase loot boxes seeking to win money or something that can be converted into money. They buy loot boxes so that they can use their contents within the game and thereby have a better gaming experience.⁵⁵

50 ACMA, *Submission 26*, Attachment 1, p. 5.

51 ACMA, *Submission 26*, Attachment 1, p. 6.

52 ACMA, *Submission 26*, Attachment 1, pp. 6–7.

53 ACMA, *Submission 26*, Attachment 1, pp. 7–8.

54 ACMA, *Submission 26*, Attachment 1, p. 2.

55 ACMA, *Submission 26*, Attachment 1, p. 5.

Chapter 2

Legal definitions of gambling

2.1 Much of the public debate regarding loot boxes has centred on whether such micro-transactions constitute gambling, and should therefore be regulated accordingly. This debate has focussed on the legal definition of gambling under federal and state and territory legislation; and the definition of gambling according to psychology.

2.2 This chapter will outline the legal definitions of gambling at the federal, state and territory level and the views of regulators tasked with determining the application of such legislation to loot boxes. The evidence received from witnesses, both for and against the application of gambling regulation to loot boxes is canvassed. This chapter also outlines the responses from international regulators.

2.3 The evidence regarding the psychological definition of gambling will be explored in Chapter 3.

Commonwealth regulation of gambling

2.4 The regulation of gambling in Australia has traditionally been the responsibility of the states and territories rather than the Commonwealth. State and territory governments regulate and provide gambling services, and collect the ensuing revenue. However, given the nature of services provided via the internet, the Commonwealth has been given responsibility for the regulation of interactive gambling services in Australia through the *Interactive Gambling Act 2001* (the IGA). As such, the IGA defines a gambling service as:

- (e) a service for the conduct of a game, where:
 - (i) the game is played for money or anything else of value; and
 - (ii) the game is a game of chance or of mixed chance and skill; and
 - (iii) a customer of the service gives or agrees to give consideration to play or enter the game.¹

2.5 Ms Jonquil Ritter, Executive Manager, Content Safeguards Branch, Australian Communications and Media Authority (ACMA), told the committee that the IGA prohibits the provision of certain services to customers in Australia. Ms Ritter stated:

The IGA prohibits certain services from being provided or advertised to customers in Australia. These include: online gambling services for games of chance, or games of mixed skill and chance such as casino-style games like blackjack and roulette and online slots. Since the IGA was amended in

1 Section 4 of the *Interactive Gambling Act 2001*. See also Australian Communications and Media Authority (ACMA), *Submission 26*, p. 1.

September 2017, the ACMA has had responsibility for enforcing the prohibitions on providing or advertising illegal interactive gambling services. We also have a role in raising awareness of Australian gambling laws to help minimise the supply and use of illegal interactive gambling services.²

2.6 Examples of prohibited interactive gambling services include online casino-style games, online slot machines and online wagering services that accept in-play bets on sports events. Regulated interactive gambling services are those services excluded from the definition of a prohibited interactive gambling service, and this includes online wagering services (other than those offering in-play betting). These services can only be provided to customers in Australia with a licence granted by an Australian state or territory licensing authority.³

2.7 The ACMA explained that online games, including those which contain loot boxes, have not, to date, been regarded as gambling services under the IGA 'because they are not 'played for money or anything else of value', as set out in paragraph (e)(i) of the definition of 'gambling service'.⁴ The ACMA stated:

...a video game is typically played for recreational purposes, rather than with the object of winning money or other valuable items. Loot boxes in turn are generally not used for the object of winning money or other valuable items, but for other reasons, such as to aid progression through a game or enhance aesthetic characteristics of the gameplay.⁵

2.8 The ACMA submitted that many of the items that are redeemed from loot boxes do not have any monetary or other value, and stated that in those circumstances, a loot box clearly cannot meet the definition of a gambling service.⁶ Ms Jeanette Knowler, Manager, Interactive Gambling Taskforce, ACMA, also told the committee that the Explanatory Memorandum for the IGA when it was introduced in 2001 states that a game must be played for a prize of monetary value for it to meet the definition of gambling under the IGA.⁷

2.9 The ACMA however, noted that 'there may be cases where the position may not be so clear, particularly where there is a secondary market for items'. As a regulator, the ACMA is required to consider the particular features of a game or

2 Ms Jonquil Ritter, ACMA, *Proof Committee Hansard*, 17 August 2018, p. 43.

3 Australian Communications and Media Authority, <https://www.acma.gov.au/Industry/Internet/Internet-content/Interactive-gambling/interactive-gambling-act-reforms>, (accessed 20 August 2018).

4 ACMA, *Submission 26*, p. 2.

5 ACMA, *Submission 26*, p. 2.

6 ACMA, *Submission 26*, p. 2.

7 Ms Jeanette Knowler, ACMA, *Proof Committee Hansard*, 17 August 2018, p. 45.

service and that it is 'therefore difficult to make statements about "loot boxes" or video games generally'.⁸

2.10 The ACMA further noted that even where a service or game may meet the definition of gambling, it does not necessarily mean that it is prohibited under the IGA. The ACMA stated that the 'definition of "gambling service" is only one of the matters the ACMA must consider in deciding if a service is prohibited under the IGA'.⁹

State and territory regulation of gambling

2.11 Gambling is also regulated by the states and territories and as such, the committee received submissions from the Victorian Government, and the New South Wales Government. These submissions outlined whether loot boxes meet the legal definitions of gambling under the legislative frameworks in these states. For example, the New South Wales Government submitted that:

Liquor & Gaming NSW does not consider that purchased loot boxes and other chance-based items (which can include a key to unlock a loot box) by themselves constitutes gambling under NSW gambling laws. However, Liquor & Gaming NSW is aware of particular instances where virtual items (being quite often the contents of a loot box) can be monetised outside the game they are featured in. Such instances are likely to offend NSW gambling laws, depending upon the circumstances.¹⁰

2.12 The New South Wales Government explained that under the *Unlawful Gambling Act 1998* (NSW) (UGA), the definition of what constitutes an 'unlawful game' includes a requirement that 'money is staked or risked on an event or contingency'. The New South Wales Government explained that money being staked or risked covers the 'prize element' in a general way and that anything that has monetary value would meet this requirement. As such, loot boxes which cannot be cashed-out or monetised outside the game would not meet the definition under the UGA. The New South Wales Government explained:

Where a game allows a player to purchase loot boxes and other chance-based items found in video games, which then provides a virtual item which can be used by the player as a form of currency *outside* of the game (thereby having monetary value), Liquor and Gaming NSW would regard this as satisfying the third limb above and this is likely to contravene the UGA.¹¹

2.13 The New South Wales Government also stated that the NSW Responsible Gambling Fund is currently considering the risk of gambling related harms associated

8 ACMA, *Submission 26*, p. 2.

9 ACMA, *Submission 26*, p. 2.

10 New South Wales Government, *Submission 33*, p. 1.

11 New South Wales Government, *Submission 33*, p. 1.

with in-game micro-transactions and chance-based items, including loot boxes. This work will inform the NSW Government's approach to whether additional safeguards are required to address the concerns around normalising gambling to minors through loot boxes.¹²

2.14 The Victorian Government however submitted that the definition of gambling under the *Gambling Regulation Act 2003* (Vic) means that loot boxes must be considered on a case by case basis to determine whether they meet definitional requirements.¹³

2.15 Submissions from state governments also raised concern that despite states and territories being responsible for the regulation of gambling in their jurisdictions, the nature of online gaming makes it necessary for regulation at a national level. The Victorian Government stated that 'state and territory governments are limited in their capacity to regulate products that are available exclusively online, are offered from outside their jurisdiction and do not constitute gambling'.¹⁴ The Queensland Attorney-General and Minister for Justice, also highlighted that:

...many game developers, including the developers of games at the centre of recent loot box controversies, are based overseas and have global markets...games may be purchased, patched and played via digital distribution platforms located on servers outside the jurisdiction in which the player resides. Additionally, from an Australian perspective, multiplayer games, including those games involved in recent loot box controversies, are generally played on oceanic servers that combine players from multiple Australian jurisdictions (and the wider oceanic region) in a single game.¹⁵

2.16 The Queensland Attorney-General and Minister for Justice, while not commenting on whether loot boxes meet the legal definition of gambling under Queensland law, nevertheless concluded that any regulation of games containing loot boxes through amendment to the IGA 'would appropriately reflect the Commonwealth's responsibility for online gambling and ensure consistent implementation of any relevant intervention across all Australian jurisdictions'.¹⁶

12 New South Wales Government, *Submission 33*, p. 3.

13 Victorian Government, *Submission 35*, p. 1.

14 Victorian Government, *Submission 35*, p. 2.

15 Attorney-General and Minister for Justice (Qld), *Submission 1*, p. 3.

16 Attorney-General and Minister for Justice (Qld), *Submission 1*, p. 3.

Issues raised in evidence

2.17 The following sections outline the evidence received both for and against the argument that loot boxes constitute gambling, as they relate to the legal definitions of gambling.

Legal definition

2.18 Submitters that argued loot boxes do not constitute gambling under Australian legislation reiterated the position outlined by the ACMA, namely that games that involve loot box features, have not been regarded as gambling services under the IGA, because they are not played for money or anything else of value (i.e. the requirement established by the IGA). For example, the Interactive Games and Entertainment Association (IGEA) submitted that:

Because items for loot boxes cannot be lawfully cashed out or exchanged for real world money, they do not involve an offer of prizes of money or "other consideration of value" and so do not constitute gambling.¹⁷

2.19 Mr Ron Curry, Chief Executive Officer, IGEA, told the committee that 'the items obtained are not money or considered as items of value, as they are only useable within the games and cannot be cashed out within those ecosystems'.¹⁸

2.20 However, others argued that the legal definition of gambling is 'outdated' and has not evolved to keep pace with technological developments. Mr Jeremy Ray, for example stated that the 'legal vocabulary to deal with the myriad iterations of loot boxes out there' does not exist. Further, there is not a 'stringent enough qualification, in a legal sense, to define gambling'. Mr Ray suggested that a 'practical definition of gambling is simply putting up value for a random amount of value' and that in the case of loot boxes, 'it's no secret that people are willing to buy virtual goods, proving their value. Thus loot boxes meet that definition every time, whether cosmetic or gameplay-affecting'.¹⁹

2.21 The concept of a commonly-accepted definition of gambling was reiterated by individual submitters who described the concept of loot boxes where players purchase the chance to win an item, and where that item is unknown and likely to be of low value as 'blatant gambling'.²⁰

17 Interactive Games and Entertainment Association (IGEA), *Submission 3*, p. 8.

18 Mr Ron Curry, IGEA, *Proof Committee Hansard*, 17 August 2018, p. 31. The issue of monetization of items through third-party sites is explored below.

19 Mr Jeremy Ray, *Submission 32*, p. 2.

20 Ms Stephanie Gray, *Submission 30*, p. 1.

Always a prize

2.22 It was also argued that loot boxes do not constitute gambling because players are always guaranteed to receive in-game content when they make a purchase i.e. there is no loss incurred by a player. For example, IGEA submitted that 'players will not encounter a scenario where the purchase of a loot box does not result in the player obtaining an in-game item'. IGEA argued that this distinguishes loot boxes 'from gambling services such as poker machines, where users are not guaranteed to receive anything in return for their consideration'.²¹

2.23 Dr James Sauer and Dr Aaron Drummond (Sauer and Drummond) noted that international jurisdictions have cited this argument when explaining why loot boxes do not constitute gambling. Sauer and Drummond submitted:

...everyone who purchases a loot box gets *something* so there are no losers. An obtained reward might be high or low in value (or desirability) but, unlike in more conventional forms of gambling, no one loses their money entirely. Both the ERSB (the game rating agency for US and Canada) and PEGI (Pan European Game Information; the game rating organisation for Europe) have cited this argument when explaining their view that loot boxes are not a form gambling (Griffiths, 2018).²²

2.24 However, while Sauer and Drummond described this premise as 'accurate' they noted that with loot boxes, 'some players still lose'. Sauer and Drummond explained that players may lose in one of two ways. First, the functional utility of reward items varies markedly with some items offering substantial competitive in-game advantages, while others provide no advantage. Players who receive these competitive advantages 'win' whilst those who do not, 'lose'. Second, where items can be sold on third-party websites, the market value for some items is less than the cost of purchasing the loot box. Therefore, the item is worth less than the amount of money the player expended in obtaining it, and the player incurred a financial loss as a result of the loot box transaction.²³

2.25 Other submitters described the defence that there is 'always a prize' as 'highly disingenuous' and agreed with Sauer and Drummond's assessment that prizes are often of little or no value. Mr Jeremy Ray explained:

Often what you get back is of minuscule or zero value, and often it's a duplicate of something you've won before. The odds of winning anything of high value are carefully calculated not only so the house always wins, but so the player feels like they've always almost won.²⁴

21 IGEA, *Submission 3*, p. 8.

22 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 4.

23 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 5. See also Dr Sauer, *Proof Committee Hansard*, 17 August 2018, pp. 6–7.

24 Mr Jeremy Ray, *Submission 32*, p. 2.

2.26 The Australian Institute of Family Studies (AIFS) similarly submitted that players take a risk when purchasing loot boxes and loot boxes are much more likely to contain a common item of low or no in-game value, which may represent a monetary loss to players. It stated:

Gambling requires an individual or group to risk losing something of value (in the case of 'loot boxes', money is risked) on an event with an uncertain outcome (a 'loot box' containing a random item is received) with the aim of winning something of greater value (although, in reality the 'loot box' is much more likely to contain a common item of low or no in-game value, which may represent a monetary loss; a valuable or highly sought-after item is rarely received).²⁵

2.27 The Institute concluded that on that basis 'micro-transactions for chance-based items therefore fall within the definition of gambling provided in the *Interactive Gambling Act 2001* or, indeed, in any commonly-accepted definition of gambling'.²⁶

2.28 Sauer and Drummond also expressed caution that the position that 'there are no losses because everyone receives something' could lead to unintended legal consequences. Sauer and Drummond submitted:

Accepting the argument that nobody loses in these games because 'everyone receives a prize' may set a legal precedent for illegal gambling operations more broadly (e.g., unlicensed casinos) to skirt gambling regulations by providing every player with some prize following a losing game (e.g., by giving losing players 5 cents of their money back on a losing blackjack hand).²⁷

2.29 Dr Drummond concluded, 'we do see a significant legal hazard with this idea that everybody wins when in some cases there are clearly real-world financial losses occurring from those loot boxes'.²⁸

Surprise and delight

2.30 It was argued that loot boxes do not constitute gambling because they are simply 'surprise and delight' mechanisms similar to trading card games and Kinder Surprise Eggs, in that purchasers understand that they are buying an item but remain unsure of the item's details until they open the packaging. IGEA stated that:

Retail and toy stores also stock a significant number of products that allow consumers to purchase sealed, non-transparent boxes or crates that provide unknown items on a variable basis...the use of surprise and delight

25 Australian Institute of Family Studies (AIFS), *Submission 10*, p. 2.

26 AIFS, *Submission 10*, p. 2.

27 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 5.

28 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 7.

mechanics in consumer products is pervasive and thus is not something unique to loot boxes.²⁹

2.31 Mr Curry, IGEA told the committee that loot boxes are 'a mechanism that's been used for many years across many different forms of product'. Mr Curry explained:

...look at things like trading cards, you don't know the value of what you're going to get out of them. You could get cards very similar to those you already have or you could get the gold, silver, bronze or whatever it is. The mechanic that we were explaining is not new and is not unique to video games.³⁰

2.32 However, this argument was rejected by a number of witnesses for a range of reasons including the effect of the context in which a player engages with the mechanism, and the knowledge of the item contained within. For example, Professor Elizabeth Handsley, President of the Australian Council on Children and the Media (ACCM) told the committee that:

The one really significant difference between loot boxes and the two types of systems that you've just referred to [Kinder Surprises and sports trading cards] is that loot boxes operate in a context where a player is already highly committed to a game...and is therefore likely to experience much greater pressure to purchase the loot box and wants something that's in the loot box in order to progress in the game where that person is already highly committed.³¹

2.33 Professor Handsley went on to explain that the psychological process of deciding to engage with a Kinder Surprise is different to the psychological process made when a player 'is in the middle of playing a game and...needs a particular tool or feels that a particular tool or weapon would be particularly useful at that point in the game and therefore tries to get access to that tool or weapon'.³²

2.34 Submitters also argued that before purchasing a Kinder Surprise egg or trading cards, consumers are broadly aware of the value of the item and that this is different to the process of engaging with a loot box.³³

29 IGEA, *Submission 2*, p. 11.

30 Mr Ron Curry, IGEA, *Proof Committee Hansard*, 17 August 2018, p. 32.

31 Professor Elizabeth Handsley, Australian Council on Children and the Media (ACCM), *Proof Committee Hansard*, 17 August 2018, p. 22.

32 Professor Elizabeth Handsley, ACCM, *Proof Committee Hansard*, 17 August 2018, p. 22.

33 Mr Stephen Dupon, Institute of Games, *Proof Committee Hansard*, 17 August 2018, p. 27. See also Mr Lindsay Shaw, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 20.

Monetisation of virtual items

2.35 A number of submitters argued that the position taken by regulators that 'in-game rewards have no real-world value, therefore loot boxes are not gambling' ignores the evidence that a number of games allow players to buy and sell virtual items for real-world currency.³⁴ For example, Sauer and Drummond submitted that during an examination of 22 games released in 2016 and 2017, they found that more than one-in-five allowed players to cash out winnings.³⁵ Dr Drummond told the committee that:

Often this occurred on third-party websites, but in at least one case in the games we analysed, and in at least four other cases we can cite, it actually occurs through a primary marketplace that is connected to the distribution platform of the game. There are actually quite substantial rewards associated with that. We're talking about the possibility of receiving rewards from these loot boxes that can be cashed out on those primary marketplaces for...Real-world currency. Upwards of US\$1,800 is what one of the items was listed for last week.³⁶

2.36 The rarity of some in-game items, and the emergence of online sites acting as exchange markets (e.g. OpSkins and CSGOLounge) have led to players paying high prices to purchase virtual items. The AIFS described in-game items as acting as 'de-facto virtual currencies'.³⁷

2.37 The monetization of virtual items, that is, the embedding of loot boxes in the real-world economy can occur in a variety of ways, as outlined below.

- **Platform supported sale** – some game creators and storefronts allow virtual items to be traded between accounts through digital marketplaces that involve either real-world currency, or digital currencies that can be used to purchase things that have real-money value. For example, games publisher Valve allows virtual items to be traded through its Steam storefront for store credit which can be spent on games by other publishers. Currency can also be indirectly traded between users.³⁸
- **Platform supported trade** – some games allow virtual items to be traded between accounts within the game, often using in-game marketplaces. Theoretically, no-real world currency is utilised in the transaction, however users may communicate and real-world currency is then exchanged outside the game in exchange for the transfer of the item for a symbolic in-game price.³⁹

34 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 4.

35 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 4.

36 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 2.

37 Australian Institute of Family Studies, *Submission 10*, p. 2.

38 Mr Greg Tannahill, *Submission 20*, p. 5.

39 Mr Greg Tannahill, *Submission 20*, p. 5.

- **Account exchange** – some games lock virtual items to a user's account which prevents the trade of items between users. However players who obtain a particularly rare or valuable item through a loot box can offer to sell their account to another player (using real-world currency exchanged outside of the game) to allow the other player to play the game using the rare item.⁴⁰
- **Third-party sales** – third-party companies commonly referred to as 'gold farmers' rapidly obtain virtual items with in-game value and sell them to other players for real-world currency. The products offered may include items where the cost of obtaining the item is lower than the average selling price for the item. Gold farmers do not participate in 'normal' or 'for fun play' and are therefore able to obtain game resources more rapidly than recreational players.⁴¹
- **'Skin gambling'** – players use virtual items and loot boxes as pseudo-currency on third-party gambling sites. These sites are not approved or authorised by games developers or publishers.⁴²

2.38 In examining loot boxes, international researchers Rune Nielsen and Pawel Grabarczyk, developed a typology for distinguishing loot boxes according to whether they are isolated or embedded in real world economies. This analysis examined whether the resource required to obtain the loot box involved real-world currency (embedded) or in-game resources (isolated); and whether the reward/virtual item can be monetized in the real world economy (embedded) or if it can only be redeemed within the game (isolated).⁴³

Table 1 – Types of loot boxes

Type	Resources (Required for achieving the eligibility condition)	Reward	Examples
1	Isolated	Isolated	Diablo 1 & 2
2	Isolated	Embedded (virtual sellable object)	Diablo 3 (with auction house)
3	Embedded (real money purchase)	Isolated (virtual unsellable object)	Overwatch, Star Wars Battlefront II, FIFA 17 Ultimate Team
4	Embedded (real money purchase)	Embedded (virtual sellable object)	PUBG, Team Fortress 2, CS:GO

Source: Dr Marcus Carter, *Submission 11*, p. 2

2.39 Dr Marcus Carter highlighted that Nielsen and Grabarczyk argue that the fourth (fully embedded) type of loot box is 'functionally similar to gambling', noting

40 Mr Greg Tannahill, *Submission 20*, p. 6.

41 Mr Greg Tannahill, *Submission 20*, p. 6.

42 Australian Institute of Family Studies, *Submission 10*, p. 2.

43 Dr Marcus Carter, *Submission 11*, p. 2.

the exceptional amounts of money involved (i.e. loot boxes which cost very little to purchase, deliver items which can be sold for thousands of dollars). Dr Carter stated that 'this is also useful for distinguishing between collectible cards and loot boxes'.⁴⁴

2.40 The committee heard that the Steam marketplace, offered by the game developer, publisher, and digital distribution company Valve, allows digital items to be traded between players for real world currency, with the original creator of the digital item collecting a fee every time the item is traded between players. Mr Blake Mizzi, Board Member, Game Developers' Association of Australia (GDAA), told the committee that Steam 'seems to be quite a healthy marketplace' where 'we see a lot of healthy transactions happening'.⁴⁵

2.41 Dr Drummond highlighted that the retail value of virtual items obtained through the purchase of loot boxes on Steam can vary hugely with items sold for a few cents while others are sold for thousands of dollars. This means that players are able to make a profit, or suffer a financial loss through the monetization of virtual items. Dr Drummond told the committee:

The overall message I'm trying to convey...is that...the highest cost items are being sold for US\$1,800, for example, one of the items on the *Counter-Strike: Global Offensive* market. The lowest cost items are often been sold for about 3c, and the cost of a loot box is typically around \$2.50, so we're looking at real world gains of \$1,800 and real-world losses of up to \$2.47 per entry into this loot box.⁴⁶

2.42 Drummond and Sauer submitted that for loot box systems where players can 'cash out' in-game rewards for real-world currency, they should be considered to meet the 'common legal criterion to be considered gambling' [i.e that prizes have a monetary value].⁴⁷

2.43 Ms Knowler, ACMA, agreed that as a regulator examining 'whether or not something fits within that definition [of gambling] is less problematic when you can monetise the item on a secondary market'. Ms Knowler noted that this definitional approach has been adopted by some international jurisdictions. However, Ms Knowler also reiterated the evidence provided in the ACMA's submission, that loot boxes must be examined on a 'case-by-case basis and there are quite different facts and ways of playing each of these games'.⁴⁸

44 Dr Marcus Carter, *Submission 11*, p. 2.

45 Mr Blake Mizzi, Game Developers Association (GDAA), *Proof Committee Hansard*, 17 August 2018, p. 11.

46 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 3.

47 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 2.

48 Ms Jeanette Knowler, ACMA, *Proof Committee Hansard*, 17 August 2018, p. 44.

2.44 IGEA submitted that it accepts that if game publishers or developers authorise the sale or exchange of virtual items for real-world currency, then the legal definition of gambling under the IGA would likely be met. It commented:

IGEA accepts that if game publishers or developers authorised players to cash out, transfer or gamble items acquired through loot boxes for real currency, whether directly or via external websites and services, the element of "offering prizes of money or other consideration of value" would likely be satisfied and current Australian gambling laws may be activated. This might also implicate the gambling laws of other countries and anti-money laundering legislation.⁴⁹

2.45 IGEA concluded however that it is 'not aware of any video games that engage in this practice'.⁵⁰ Mr Ron Curry, IGEA explained that 'video game publishers and developers typically do not allow loot boxes, virtual items or game points to be traded, exchanged, sold or gambled outside of the game ecosystem or via third-party sites'. Mr Curry stated:

Where a party other than the video game publisher, developer or platform offers a mechanism to cash out, purchase or gamble, it's generally unauthorised, potentially unlawful and likely acting in violation of the terms of service and user-licence agreements, and other similar contractual terms. Video game companies do not receive any benefit or remuneration from these external websites or services, and nor do they have any relationship with the companies that operate them.⁵¹

2.46 IGEA also questioned whether the monetisation of virtual items for amounts higher than the purchase price should determine whether a loot box meets the definition of gambling. It highlighted that items obtained through other 'surprise and delight' mechanisms such as trading cards and toys can also be sold for more than the purchase price. IGEA submitted that:

...collectible items frequently sell at prices that are marked-up much higher than their initial recommended retail prices. Does this mean that these products also constitute a form of gambling or require additional regulation, simply because the initial purchase involved an element of variability and surprise?⁵²

49 IGEA, *Submission 3*, p. 9.

50 IGEA, *Submission 3*, p. 9.

51 Mr Ron Curry, IGEA, *Proof Committee Hansard*, 17 August 2018, p. 31. See also IGEA, *Submission 3*, p. 9.

52 IGEA, *Submission 3*, p. 11.

Skin gambling

2.47 It was acknowledged that virtual items are also able to be monetized through so-called 'skin gambling' where virtual items are used to 'chip in' on online digital casinos. However, this was described as occurring in 'a dark corner of the internet', and without the permission of game developers or publishers. Mr Mizzi, GDAA, stated:

Essentially, we do know that there is a dark corner of the internet where gambling goods in video games—digital goods from video games, as in these digital casinos—is a problem. It's a billion-dollar industry. A lot of these individuals, as I mentioned before, are based in Russia and often in the US as well. There have also been indications that this has also been connected to money laundering. But they're not part of the common or mainstream games industry or community of players.⁵³

2.48 IGEA submitted that 'black' secondary market websites utilise 'underhand tactics to be able to operate, including setting up fake accounts to facilitate external trades, hacking or exploiting vulnerabilities in a game environment, or even transferring ownership of accounts to other players by password sharing'.⁵⁴

2.49 Mr Mizzi, GDAA, told the committee that Valve's Steam platform has been the principal platform utilised by third party gambling sites. Further, despite Valve's attempts to close such sites, new ones are created daily. Mr Mizzi stated that:

Valve has been on a mission to clamp down on these third party skin casinos and has managed it around their popular game Counter Strike GO. This has been made possible due to a gap or a loophole identified in the Steam platforms open ID API—it's part of their programming—and has created a billion-dollar black market gambling industry... As I understand it, Valve has managed to close roughly half of these casino related gambling sites though new ones do open daily. For the committee's benefit, Valve is a privately-owned US company that is the creator of the Steam marketplace platform and is also the creator of the CS:GO game.⁵⁵

2.50 Mr Mizzi concluded that the issue of skin gambling using the Valve platform is not an issue related to game design or the inclusion of loot boxes, but rather it is 'a security problem' related to the Valve platform.⁵⁶

53 Mr Blake Mizzi, GDAA *Proof Committee Hansard*, 17 August 2018, p. 11.

54 IGEA, *Submission 3*, p. 9.

55 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 11.

56 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 11.

2.51 Mr Mizzi also stated that game developers have little control over third party gambling sites, or the security measures utilised by digital stores which sell games. In addition, few options are available to game developers when users breach terms of service or licence agreements to skin gamble. Mr Mizzi stated:

The game developers around the world, particularly Australian developers, who publish their games on digital stores such as Steam, Xbox, PlayStation, Google Play and the iTunes App Store have little to no control over the security measures or the code and infrastructure around these digital stores. We also don't have much control around the third party gambling sites. And we have only limited control around when a player breaches our users end term licence agreement or terms of service. One way the players can cash out in this regards has been identified—when they sell their online account to someone else.⁵⁷

Broader concept of value

2.52 While the ACMA submitted that it is restricted by the requirement of the IGA that prizes must have a monetary value in order for loot boxes to satisfy the legal definition of gambling, other submitters argued that this 'rests on a very narrow conceptualisation of utility'.⁵⁸

2.53 Sauer and Drummond argued that this position 'ignores the subjective value created for players from the combination of scarcity of, and competitive advantage provided by, in-game items in the gaming environment'. Sauer and Drummond explained:

...in-game rewards can have value for players – and influence players' behaviour (i.e., motivate them to engage with loot box mechanisms) – without being converted into real currency. For example, a scarce costume may signify prestige in the games' online community, or a particular weapon might be highly desirable because it increases the ease with which they can win future games. In both cases, the item has value for the player, and this value may motivate players to continue buying randomised rewards until they obtain the item they desire.⁵⁹

2.54 Dr Drummond told the committee that 'most games have variable scarcity items that are often referred to as rare, epic or legendary items'. These items are often only ever given to players a very small percentage of the time and this creates a system where players desire these items more than other items. Dr Drummond concluded that the desirability of an item alters the way a player 'might perceive the value' of items.⁶⁰

57 Mr Blake Mizzi, GDA, *Proof Committee Hansard*, 17 August 2018, pp. 9–10.

58 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 5.

59 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 5.

60 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 3.

2.55 Professor Handsley, ACCM, similarly highlighted the psychological processes which affect the way in which players conceptualise value. Professor Handsley argued that the ability to:

...convert loot boxes into real-life money is neither here nor there because the items that are accessed via loot boxes are of value to the player. That's all that really matters from a psychological perspective. Whether that person can then get money or some real-life tangible good in return for the loot boxes is neither here nor there. The player is committed to the game. These games are very absorbing. There are a lot of people who have a lot invested in playing games and getting to higher levels, therefore the value to those can be very high. From a psychological perspective, that's what matters. Whether it's money or some tangible good is really not the point.⁶¹

2.56 The Attorney-General and Minister for Justice (Qld) also noted that virtual items obtained through loot boxes 'can change the way the player is perceived by other players within the game, therefore adding to the player's prestige and status and creating something of value to the player'.⁶²

2.57 Similarly, Dr Carter highlighted the finding by the Belgian Gaming Commission that 'loot boxes are a form of gambling, even if players can't trade or sell the options'. The Commission found that 'what is important is that players attach value to it [loot boxes] and that this value is also emphasised by the game developers themselves'.⁶³

2.58 It was also noted that this broader conceptualisation of value and utility may have particular effects on children. For example, Dr Carter noted that children, 'who do not place the same value on "real" money as adults' may be 'more vulnerable to the configuration of economically isolated rewards that have significant social and cultural value to players'. For example, being able to play as Cristiano Ronaldo in *FIFA* or advantages in competitive games such as *Angry Birds 2*, may have more value to children than a monetary prize.⁶⁴

61 Professor Elizabeth Handsley, ACCM, *Proof Committee Hansard*, 17 August 2018, p. 23.

62 Attorney-General and Minister for Justice (Qld), *Submission 1*, p. 2.

63 Dr Marcus Carter, *Submission 11*, p. 2. Citing Belgian Gaming Commission, 'Research Report on Loot Boxes', April 2018, p. 10, https://www.gamingcommission.be/opencms/export/sites/default/jhksweb_nl/documents/onderzoekrapport-loot-boxen-Engels-publicatie.pdf.

64 Dr Marcus Carter, *Submission 11*, p. 3.

Chapter 3

Psychology and loot boxes

3.1 Despite the view that many of the legal definitions of gambling do not extend to loot boxes (both in Australia and internationally), submitters argued that some types of loot box are so functionally similar to, or share enough characteristics with, other forms of gambling that they should be regulated accordingly.

3.2 Evidence was twofold: that some types of loot boxes meet the psychological definition of gambling; and that loot boxes use psychological mechanisms in the same way that other forms of gambling do, in order to encourage play.

3.3 Submitters also argued that loot boxes may cause gambling-related harms, encourage gambling activity, and familiarise children and young people with gambling and gambling-like activities.

Psychological definitions of gambling

3.4 It was argued that many loot boxes meet the psychological definition of gambling, even where they do not meet the legal definitions. In particular, submitters highlighted the criteria used in psychology literature to distinguish gambling from other forms of risky behaviour. The criteria used to identify gambling activity are as follows:

- the exchange of money or valuable goods;
- an unknown future event determines the exchange;
- chance at least partly determines the outcome;
- non-participation can avoid incurring losses; and
- winners gain at the sole expense of losers.¹

3.5 Dr James Sauer and Dr Andrew Drummond (Sauer and Drummond) explained that to meet these criteria, a loot box system would need to:

- be purchasable for real-world currency;
- be accessed after payment is made;
- provide a reward determined at least partly by chance; and
- be optional (i.e. players must be able to choose not to buy the loot box).²

1 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, pp. 3–4.

2 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 4.

3.6 Sauer and Drummond submitted that the fifth psychological criterion, that players profit at the expense of losers, would only be met if the obtained reward provides winners with a direct competitive advantage over losers in future gameplay. Sauer and Drummond described this as 'a conservative approach'.³ Dr Sauer told the committee:

We've adopted a fairly conservative interpretation of this and thought that it only occurs where players might gain some sort of real-world competitive advantage in future games. This is not the only way you might conceptualise value. The combination of scarcity of items, desirability of items and social status of items may well contribute to people wanting those items, and the desirability and value that they have to people.⁴

3.7 As noted in Chapter 2, Sauer and Drummond examined the loot box mechanisms contained in 22 games released in 2016 and 2017. Sauer and Drummond examined such mechanisms against the above established psychological criteria for gambling and found that:

Nearly half of the games reviewed met all the psychological criteria, and more than one-in five met the cash-out criterion (allowing players to cash out winnings). These cases appear most clearly to constitute a form of gambling.⁵

3.8 It was however noted that the study only examined major home game-console and PC releases and did not analyse smartphones and tablet releases of video games. Dr Drummond told the committee that 'market research does suggest that loot boxes and micro-transactions for chance-based items are much more common' in mobile games. As such, the overall percentage of video games meeting the psychological criteria for gambling could not be assessed; however, it is possible that the overall percentage of loot boxes meeting the criteria 'is likely to be a little bit higher' with the inclusion of mobile games.⁶

Psychological mechanisms

3.9 Submitters also presented evidence that loot boxes share psychological mechanisms with other forms of gambling. These include:

- variable ratio reinforcement schedules;
- game-play experience such as sensory feedback;
- entrapment and other mechanisms encouraging continued spending; and
- ready and constant availability.

3 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 4.

4 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 2.

5 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 4. See also Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 1.

6 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, pp. 1–2.

3.10 The following sections will outline the evidence received in relation to a range of mechanisms commonly found other forms of gambling. The following sections will also explore the way in which these mechanisms influence and affect players; and the potential for gambling-related harms to be experienced by players as a result of these mechanisms.

Variable ratio reinforcement schedule

3.11 Operant conditioning, or the rewarding of certain behaviours to encourage the repetition of such behaviour, is a well-recognised concept. However, one of the key findings in psychological research into operant conditioning is that 'the most effective way to encourage a behaviour is not to reward every instance of that behaviour. It's to deliver rewards on a seemingly random schedule...this is...a variable reinforcement schedule'. Dr Sauer explained:

What this means is that on average a behaviour might be rewarded once every 10 times it's committed, but in practice it might be two instances to your first reward, 13 instances to your second reward, five instances to your third reward and so on. This is called a variable ratio reinforcement schedule. What it does, in addition to offering rewards at intermittent points in time or following a certain number of responses, is that each time the player commits the behaviour but doesn't get the reward they get a little tinge of disappointment, but they also think, 'Well, I'm one step closer to getting the reward the next time'.⁷

3.12 Of particular note, variable ratio reinforcement schedules result in people quickly acquiring behaviours, and repeating these behaviours frequently, in the hope of obtaining a reward. Such behaviours are 'extremely persistent' and variable ratio reinforcement schedules are a central feature of poker machine gambling.⁸ Dr Sauer described these behaviours as 'robust against extinction' and noted that 'it's very difficult for players to stop repeating the behaviour, even once the rewards become more and more infrequent'.⁹

3.13 The Royal Australian and New Zealand College of Psychiatrists (RANZCP) submitted that concurrent with such behaviours are the 'adaptation of neural pathways which further encourage these behaviours'. It also stated that:

While most people who engage in gambling activities with a variable ratio reinforcement schedule do not develop problem gambling, many do, and these are likely to be people with pre-existing vulnerabilities.¹⁰

3.14 It was argued that the variable ratio reinforcement schedule that underpins many gambling models, similarly underpins the mechanism of loot boxes. As noted

7 Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 2.

8 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 3.

9 Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 2.

10 Royal Australian and New Zealand College of Psychiatrists (RANZCP), *Submission 9*, p. 2.

above, variable ratio reinforcement schedules involve a reward structure where players do not know how many purchases are required to obtain an item sought¹¹ and Sauer and Drummond explained that in the context of loot boxes this means that:

Across multiple purchases, players might receive a high value item on average every X number of times they open a loot box (where X represents a number of openings determined by a pre-defined algorithm). For example, a game with a 10% chance of a high value item in a loot box may result in success, on *average*, once for every ten boxes purchased. Critically, however, the *exact* number of boxes that must be purchased to obtain a valuable item varies.¹²

3.15 The RANZCP assessed the risk to players who engage with loot boxes of developing gambling-related harms as likely being similar to the risk posed by other forms of gambling that utilise variable ratio reinforcement schedules.¹³

Predatory monetization schemes

3.16 Dr Daniel King and Professor Paul Delfabbro, School of Psychology, The University of Adelaide, described loot boxes as a predatory monetization scheme in an editorial for the academic journal *Addiction* in June 2018. King and Delfabbro stated that loot boxes contributed to increasing the similarities between gaming and gambling, and created a potential for financial harm. King and Delfabbro defined predatory monetization schemes as 'purchasing systems that disguise or withhold the long term cost of the activity until players are already financially or psychologically committed'.¹⁴

3.17 For King and Delfabbro, loot boxes encouraged repeated player spending through intrusive and unavoidable solicitations, limited disclosure of the product, and systems which manipulate reward outcomes to reinforce purchasing behaviours at the expense of encouraging skilful or strategic play.¹⁵

3.18 In addition, King and Delfabbro noted that player data is being collected and utilised to manipulate the nature and presentation of loot boxes to maximise the likelihood of players making purchases. In some cases, the prices and chances of

11 RANZCP, *Submission 9*, p. 2.

12 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 3.

13 RANZCP, *Submission 9*, p. 2.

14 Victorian Responsible Gambling Foundation (VRGF), *Submission 8*, p. 5. Citing, Daniel King and Paul Delfabbro, 'Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder, 28 June 2018, *Addiction*, pp. 1–2. See also Australian Council on Children and the Media (ACCM), *Submission 25*, pp. 6–7.

15 VRGF, *Submission 8*, p. 5. Citing, Daniel King and Paul Delfabbro, 'Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder, 28 June 2018, *Addiction*, pp. 1–2. See also ACCM, *Submission 25*, pp. 6–7.

winning virtual items are manipulated according to the player's spending and playing habits in the game. King and Delfabbro concluded that such schemes may entice some players to spend more money than they have, or can afford through the use of credit cards.¹⁶

3.19 Dr Marcus Carter similarly submitted that 'it is possible that some loot boxes are configured with variable odds, which change based on factors such as player profile (e.g. less likely to reward wealthier players) or behaviour (e.g. more likely to reward players the more they spend)'. Dr Carter described the latter as an 'example of predatory and manipulative practice' which exploits the 'Gamblers Fallacy', that is, 'the expectation that the probability of winning increases with the length of an ongoing run of losses'.¹⁷

3.20 International researchers, Rune Nielsen and Pawel Grabarczyk, also noted several other characteristics which are likely to be manipulated by the configuration of loot boxes. For example, players of *Marvel Strike Force* identified that they had been given different odds in the game's chance-based micro-transactions. Dr Carter stated that 'this is easily implemented when reward cannot be traded for real-money, potentially making them more harmful than rewards that can be subsequently traded for money'. However it was noted that investigating such practices is 'almost impossible' as such practices are kept strictly confidential. Dr Carter concluded that the potential impact of such practices on player's attitudes to real-world gambling are 'also potentially problematic, and may be contributing to the explosive growth of problem gambling in 18–25 year old Australian men'.¹⁸

3.21 The committee also received evidence from individuals concerned that video game developers and publishers are 'using advanced algorithms to encourage and then positively re-enforce the purchase of...loot boxes and the items they contain within'. Ms Stephanie Gray explained that games 'match make' to ensure that players that do not purchase loot boxes are forced to play against those who have made purchases. The virtual items won through loot boxes are significantly more powerful than free items and the player who has not made purchases is likely to lose repeatedly. If a player then decides to purchase loot boxes, they are likely to then be matched with those who have not, allowing them to begin winning games. Ms Gray submitted that this positively reinforces the decision to purchase a loot box.¹⁹

3.22 Dr Paul Cairns, Reader in Human-Computer Interaction, University of York, compared the development of electronic gaming machines (EGMs) with the

16 VRGF, *Submission 8*, p. 5. Citing Daniel King and Paul Delfabbro, 'Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder, 28 June 2018, *Addiction*, pp. 1–2. See also ACCM, *Submission 25*, pp. 6–7. See also Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 19.

17 Dr Marcus Carter, *Submission 11*, p. 3.

18 Dr Marcus Carter, *Submission 11*, p. 3.

19 Ms Stephanie Gray, *Submission 30*, p. 1.

development of loot box mechanisms. Dr Cairns noted that the mechanics of EGMs (also called pokies, poker machines or slot machines) have been researched and developed to ensure effectiveness, particularly in ensuring that players continue to spend money. Dr Cairns stated:

...the research in slot machines is very clear. It's highly effective if you get those ratios right in what's called offering a smooth ride to extinction; in other words, literally taking all the money off the gambler. They worked over decades to get these proportions right and to get the balance right in order to monetise slot machines.²⁰

3.23 Dr Cairns went on to note that though game designers and developers are not working 'at the same industrial level at which slot machine developers are working', nevertheless 'there are people looking at these analytics, and if their job is to increase monetisation they will be doing exactly the same thing in the loot box context'.²¹

3.24 It was also highlighted that players are 'heavily incentivised to permit mobile games to send them push notifications, for example to remind them when they can play again'. Dr Carter stated that:

These appear like text messages on a players' phone. Some games send push-notifications about limited time offers such as a discount on purchasing in-game currency, or a for free 'loot-box' for logging in every day. Large companies likely spend considerable resources on identifying the most effective way to send these messages to encourage player to engage in in-app purchases, many of which (as discussed) heavily resemble gambling.²²

3.25 Dr Carter concluded that 'for some players (many of whom are children), this would be like having a slot machine in your pocket that actively encourages you to gamble at your most vulnerable moment'.²³

Optional participation

3.26 However, the Interactive Games and Entertainment Association (IGEA) argued that 'loot boxes are simply one form of optional micro-transaction that will always provide players with in-game items. They are not necessary or required to enjoy, progress in or complete a video-game'.²⁴

3.27 Mr Ron Curry, Chief Executive Officer, IGEA told the committee that loot boxes are not predatory because 'loot boxes are not the only way to do those things

20 Dr Paul Cairns, University of York, *Proof Committee Hansard*, 17 September 2018, p. 5.

21 Dr Paul Cairns, *Proof Committee Hansard*, 17 September 2018, p. 5.

22 Dr Marcus Carter, *Submission 11*, pp. 3-4.

23 Dr Marcus Carter, *Submission 11*, p. 4.

²⁴ IGEA, *Submission 3*, p. 4.

[game achievements], and nor is a loot box the only way to finish a game for example'.²⁵

Game-play experience

3.28 A number of submitters raised concern that the game-play experience of opening loot boxes is similar to the experience of playing EGMs. For example, like EGMs, loot boxes:

...often encompass rapid playing speeds combined with rapid (or in the case of micro-transactions, immediate) payouts, the potential to quickly and easily multiply bets/transactions, and audio-visual effects to enhance the gam(b)ling experience.²⁶

3.29 In particular, the sensory feedback provided to players during the opening of a loot box was compared to those provided by poker machines. For example, Mr Lindsay Shaw, Senior Policy and Knowledge Officer, Victorian Responsible Gambling Foundation (VRGF) stated that when a 'loot box opens there's flashing lights and there's music, the same as a poker machine'.²⁷ The committee also heard that the animations used to deliver loot boxes in games are similar to those used by EGMs. For example, Mr Glen Bruton submitted:

I would suggest you watch some of the animations used in games when 'opening a loot box', try to divorce them from similar animation and sound techniques used on poker machines, you probably won't be able to.²⁸

3.30 Similarly, Mr James Donnelly stated:

When opening the boxes, the possibilities of what may be ultimately draw for the player is scrolled across before them on their screen. This is identical to the way a slot machine scrolls around before ultimately stopping. As with the slot machine, the graphic display eventually stops on an item, which is given to the player – regardless of whether that is what they desired or not.²⁹

²⁵ Mr Ron Curry, IGEA, *Proof Committee Hansard*, 17 August 2018, p. 32.

²⁶ RANZCP, *Submission 9*, p. 2. See also Mr Greg Tannahill, *Submission 20*, p. 7.

²⁷ Mr Lindsay Shaw, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 20.

²⁸ Mr Glen Bruton, *Submission 19*, p. 1.

²⁹ Mr James Donnelly, *Submission 14*, p. 1

Monitoring of spending

3.31 It was submitted that 'users can quickly become unaware of how much money they have spent'.³⁰ The ability for players to monitor and control spending on loot boxes is affected by a number of factors including: the use of in-game currency and the dematerialisation of payment; one-click purchasing; and a lack of real-time feedback.

3.32 These are mechanisms commonly found in other forms of gambling, and which can contribute to the development of gambling-related harms.

In-game currency

3.33 The committee received evidence that many video games use items such as crystals, gold coins, hearts or other symbols appropriate for the specific genre of the game to represent currency for micro-transactions. As such, players purchase such in-game currency with real-world currency and then purchase virtual items such as loot boxes with the in-game currency.

3.34 The use of so-called in-game currency can affect players' ability to track purchases and monitor spending. The Australian Council on Children and the Media (ACCM) submitted that 'the effect of virtual money use is the dematerialisation of payment' where 'the user often has no clear idea of [the] actual cost' of the loot box.³¹

3.35 Similarly, Dr Drummond explained that 'there is some research that suggests that this conversion into abstract currency may also increase people's willingness to spend money when it is in abstract forms rather than real-world dollars'.³²

3.36 Mr David Wanden, a video game player, told the committee that many games use digital currencies which are purchased with real-world currency. Mr Wanden submitted that:

The idea behind this strategy is to detach you from your money so that you are more comfortable spending it much like casinos use chips or credits that you gamble with rather than your real money. For example \$4.99 might get you 500 'coins' 2 loot boxes cost 480 coins. You spin the slot on 2 loot boxes and then have 20 coins left over that you can't spend so if you want to use them you are forced to spend more money.³³

30 Mr Julian Rzechowicz, *Submission 22*, p. 5.

31 Australian Council on Children and the Media (ACCM), *Submission 25*, p. 3. Citing Nenad Tomic, 'Effects of micro transactions on video games industry', *Megatrend revija – Megatrend Review Vol. 14*, No 3, 2017: 239–258 March 2017.

32 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 7.

33 Mr David Wanden, *Submission 24*, p. 1.

One-click purchasing

3.37 The ease with which micro-transactions can occur was highlighted as affecting players' ability monitor spending. Dr Drummond explained that particularly with tablet and phone games, in-app purchases are 'incredibly easy'. Dr Drummond stated:

Once you have entered your card details, all you have to do is re-enter your password in order to get those in-app purchases, which may be for chance based items. So it is very easy for players in those mediums to spend money. It is a little bit harder for players in more conventional mediums like consoles and PCs to spend that money; usually they would have to drop out of the game and go to a separate marketplace. But within smartphone releases and tablet releases it is much easier.³⁴

3.38 Dr Cairns, University of York, told the committee that 'the physical world puts natural barriers in the way of people's behaviour'. In contrast, online activities are characterised by 'velocity and volume', that is, 'computers can do...things quickly and in large quantities', including making rapid and repeated purchases of items such as loot boxes. Dr Cairns explained:

...if I wanted to go and buy a Kinder egg I have to pop down to the shop and buy a Kinder egg, or I can buy a box full of Kinder eggs. But once I've spent that and opened them, I'd have to go back to a shop again, and that slows things down, because it is a physical action. When I am on a computer, I can keep pressing 'buy' at a rate as fast as my finger can click. So there is velocity is there. And of course the volume is that I can spend as much as I think is reasonable as well...If I was an addicted book reader I could buy a book a minute on Amazon without any problem whatsoever. Nothing would stop me. And it is the same with loot boxes and games. There's nothing stopping people spending at that volume and that velocity. It is a difference in nature, not a difference in quality.³⁵

3.39 Dr Drummond concluded that such ease of purchase creates 'the hazard of not being able to receive real-time feedback about the amount of money that is being spent'.³⁶ Similarly, Mr Tony Phillips, VRGF, told the committee that where users are at risk of losing control of their spending, the tracking of spending is 'really important'.³⁷

34 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 7.

35 Dr Paul Cairns, *Proof Committee Hansard*, 17 September 2018, p. 3.

36 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 7.

37 Mr Tony Phillips, Victorian Responsible Gambling Foundation, *Proof Committee Hansard*, 17 August 2018, p. 18.

Entrapment

3.40 The committee also heard that gaming micro-transactions for chance-based items can reinforce and perpetuate continued play which sustains ongoing spending through so-called 'entrapment' (when an individual believes they have invested too much to quit).³⁸

3.41 The RANZCP explained that continued play through entrapment is similar to individuals 'chasing losses' in traditional gambling and that 'people who engage in micro-transactions often report their primary motivation as a desire to extend play, as well as an aim to chase lost credits and to speed up play'.³⁹

3.42 The ACCM similarly highlighted the work of King and Delfabbro which stated that in entrapment situations, 'players will often spend an escalating amount of money that begets further spending on the game'. King and Delfabbro explained that in the context of loot boxes:

The investment of an irretrievable sum of money in pursuit of desirable virtual items may be seen by players as an investment to the extent that it will increase the likelihood of obtaining these items. In this connection, spending more and more money on loot boxes may have a 'sunk cost' effect that serves to justify continued expenditure.⁴⁰

3.43 Entrapment can also be exacerbated by the use of virtual currencies, and association or play with other individuals who are similarly trapped. King and Delfabbro explained that 'entrapment by micro-transactions may occur because the costs are less salient, because these transactions are represented as virtual credits or credit card debt'.⁴¹

3.44 Further, the exposure to other online players who are entrapped may cause players to make 'maladaptive purchasing decisions'. King and Delfabbro explained:

Observing other players' spending and opening of loot boxes with favourable outcomes may provoke counterfactual comparisons (e.g. 'If only I had spent more ...') that sustain players' spending.⁴²

38 RANZCP, *Submission 9*, p. 2. See also ACCM, *Submission 25*, p. 3.

39 RANZCP, *Submission 9*, p. 2.

40 ACCM, *Submission 25*, p. 7. Citing Daniel King and Paul Delfabbro, 'Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder, 28 June 2018, *Addiction*, pp. 1–2.

41 ACCM, *Submission 25*, p. 7. Citing Daniel King and Paul Delfabbro, 'Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder, 28 June 2018, *Addiction*, pp. 1–2. See also RANZCP, *Submission 9*, p. 2.

42 ACCM, *Submission 25*, p. 7. Citing Daniel King and Paul Delfabbro, 'Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder, 28 June 2018, *Addiction*, pp. 1–2.

Potential for harm

3.45 Submitters noted that empirical evidence regarding the effect of loot boxes, and the potential for harm, is scarce due to such mechanisms being a 'relatively new and still evolving product'.⁴³ For example, Sauer and Drummond submitted that 'the current body of evidence does not yet allow us to draw confident conclusions about the short- or long-term consequences of engaging with loot box systems'.⁴⁴ Similarly, Dr David Zendle, Lecturer in Computer Science, York St John University, told the committee that:

...the literature is just...beginning with loot boxes, which is one of the things that make your decision-making very hard. There is very little evidence for you to go on. Certainly when it comes to empirical studies there is very little...It will take months, if not years, for the literature to gain the nuances that you're talking about and be able to inform you in any empirical way.⁴⁵

3.46 Dr Carter noted that 'there is little existing research into the impact of these mechanisms on players (adults or children) and factors such as their positive or negative experience with monetisation, and how it distorts or influences their perception of, and attitudes towards real-world gambling'.⁴⁶

3.47 However, the committee did receive evidence regarding 'the only large-scale study in existence regarding the effects of loot boxes'. This study was found to 'strongly support claims that loot boxes are psychologically akin to gambling' and 'suggest that there is a serious risk for loot boxes to cause gambling-related harm'.⁴⁷

Zendle and Cairns study

3.48 The study conducted by Dr David Zendle and Dr Paul Cairns 'investigated links between loot box spending and problem gambling'. It surveyed 7422 gamers and measured how much they spend on loot boxes, and the severity of their problem gambling.⁴⁸ Dr Zendle explained:

...we have run two studies. The first study was run on about 7½ thousand gamers, and the second study was run on about a thousand gamers and replicated the results. We got the same thing both times, which is always nice to see in science, because it suggests that the effect you are seeing in the world is real and it is robust. The first time we measured categories of

43 Victorian Responsible Gambling Foundation, *Submission 8*, p. 5.

44 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 5.

45 Dr David Zendle, *Proof Committee Hansard*, 17 September 2018, p. 2. See also, IGEA, *Supplementary Submission 3.1*, p. 2.

46 Dr Marcus Carter, *Submission 11*, p. 5.

47 Dr David Zendle, *Submission 38*, p. 1.

48 Dr David Zendle, *Submission 38*, p. 1.

spending. We asked people: 'Do you spend less than a dollar? Do you spend between \$1 and \$5? Do you spend between \$5 and \$10?'...In the second study we asked directly: 'How much are you spending in dollars? Give us the absolute amount.'⁴⁹

3.49 The study found that the more severe an individual's problem gambling, the more they spent on loot boxes. In particular, there was 'about a \$10 or \$15 difference per month in spending on average between problem gamblers and non-problem gamblers'. Dr Zendle stated that it is important to note that utilising averages 'discounts the effects of very, very extreme problem gamblers'. Dr Zendle explained:

We saw five or six people within that sample who were claiming to spend \$2,000 or so a month. In general, we see about one per cent of the people in each of our studies is spending \$300 or so, or upwards, per month on loot boxes. So you have got this long tail in the data where at the end you have a group of people who are spending really, really large amounts.⁵⁰

3.50 Zendle and Cairns submitted that the relationship between problem gambling and spending on loot boxes was found to be 'neither trivial, nor unimportant' and that the amount that individuals 'spent on loot boxes was a better predictor of their problem gambling than high-profile factors...such as depression and drug abuse'.⁵¹ Dr Zendle stated:

We've found that loot boxes are linked to problem gambling. The worse that people's problem gambling is, the more they spend on loot boxes. We have demonstrated and replicated this relationship in studies with over 8½ thousand participants. The link between problem gambling and loot box spending is neither small nor trivial. Our research has shown that this relationship is comparable in size to links between problem gambling and important factors like alcohol dependence, drug abuse and depression.⁵²

3.51 Zendle and Cairns noted that though the study 'provides the sole empirical evidence of a link between loot box use and gambling related harm', it is however 'important to clarify that the nature of this harm is partially unclear due to the correlational nature of the study'.⁵³ Dr Zendle explained that the relationship between loot boxes and gambling uncovered by the study indicates one of two things:

Loot boxes may well be acting as a gateway to problem gambling amongst gamers; hence the more gamers spend on loot boxes, the more severe their problem gambling becomes. Alternatively, it may be the case that

49 Dr David Zendle, *Proof Committee Hansard*, 17 September 2018, p. 2.

50 Dr David Zendle, *Proof Committee Hansard*, 17 September 2018, pp. 2–3.

51 Dr David Zendle, *Submission 38*, p. 1.

52 Dr David Zendle, *Proof Committee Hansard*, 17 September 2018, p. 1.

53 Dr David Zendle, *Submission 38*, p. 3.

individuals who are already problem gamblers instead tend to spend more on loot boxes.⁵⁴

3.52 Dr Zendle highlighted that 'problem gambling is characterised by excessive, harmful and often uncontrollable spending on gambling activities'. As such, the characteristics of loot boxes may lead gamers who are also problem gamblers to spend large amounts of money on loot boxes; just as they would spend on other forms of gambling.⁵⁵

3.53 Zendle and Cairns hypothesised that loot boxes are either causing gambling problems, or are providing an opportunity for game developers to 'exploit addictive disorders amongst their customers for profit'.⁵⁶ Dr Zendle stated:

Our research suggests that loot boxes either literally cause problem gambling or, alternatively, allow games companies to exploit serious gambling problems amongst their customers for massive monetary gain. It is important to remember that loot boxes are projected to generate as much as \$US30 billion in revenue this year alone.⁵⁷

3.54 It was also submitted that the results of the Zendle and Cairns study supports the position of academics who argue that loot boxes are psychologically similar to gambling. Dr Zendle explained:

Spending large amounts of money on loot boxes was associated with problematic levels of spending on other forms of gambling. This is what one would expect if loot boxes psychologically constituted a form of gambling. It is not what one would expect if loot boxes were, instead, psychologically comparable to baseball cards.⁵⁸

Caution advised regarding Zendle and Cairns study

3.55 In response to the evidence provided by Drs Zendle and Cairns, the IGEA provided the committee with a supplementary submission expressing concern with aspects of the study conducted.

3.56 IGEA expressed concern regarding the methodology utilised in the study and questioned 'whether an online poll using a self-reported sample of adult gamers recruited from Reddit...provides a sufficiently robust methodology for a study that may be used to inform regulatory decisions in Australia'. IGEA also questioned the

54 Dr David Zendle, *Proof Committee Hansard*, 17 September 2018, p. 1.

55 Dr David Zendle, *Submission 38*, p. 3.

56 Dr David Zendle, *Submission 38*, p. 3.

57 Dr David Zendle, *Proof Committee Hansard*, 17 September 2018, p. 1.

58 Dr David Zendle, *Submission 38*, p. 3.

reliability of responses, and noted that 'it does not appear that the research conducted by Drs Zendle and Cairns has had the opportunity to be peer-reviewed at this time'.⁵⁹

3.57 IGEA stated that it is 'worried that, in the environment of limited academic research, the Committee will be tempted to place disproportionate reliance on the research conducted by Drs Zendle and Cairns'.⁶⁰

Analogous evidence

3.58 Submitters, in acknowledging the lack of research into loot boxes specifically, offered an analysis of the potential risk of harm from loot boxes by examining their similarities to other forms of gambling which have been more widely researched. For example, the VRGF compared loot boxes with poker machines, and wagering to assess the risk of harm generators associated with each type.⁶¹

3.59 The VRGF found that loot boxes and poker machines share the following risk of harm generators:

- reinforcement through random rewards;
- associated with chasing losses;
- system of rewards are complex and hard to understand (though poker machines have a designated return to player);
- gambler's fallacy;
- accompanying visual and audio stimulation;
- near misses built into presentation of result (shows possible wins apparently just going past before final result);
- immersion (zoning out and losing track of time and spending);
- high accessibility and availability; and
- appeal to children (though poker machines are strictly regulated regarding location).⁶²

3.60 Similarly it found that loot boxes and wagering share the following risk of harm generators:

- push offers during sessions;
- offers that are hard to understand in terms of return for investment and actual price;
- ability to hide and play in private;

59 IGEA, *Supplementary Submission 3.1*, p. 2.

60 IGEA, *Supplementary Submission 3.1*, p. 2.

61 Victorian Responsible Gambling Foundation, *Submission 8*, p. 5.

62 Victorian Responsible Gambling Foundation, *Submission 8*, pp. 5–6.

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- very high levels of access (weak structural barriers to playing);
 - tokenisation or expenditure utilising an abstract form or an account;
 - social interaction which may cause a competitive or reinforcement effect leading to more expenditure or obsession; and
 - it can be hard to keep track of expenditure.⁶³

3.61 The VRGF also found that poker machines and wagering in fact offer consumer protections to players which loot boxes do not. These include self-exclusion, and the ability to track expenditure and play in some jurisdictions.⁶⁴

3.62 The RANZCP similarly submitted that the ease with which gaming platforms utilising loot boxes can be accessed 'bears similarities with the rise of interactive and online forms of gambling'. It particularly noted that online platforms provide ready and constant availability and stated that:

New gamblers are more easily recruited online, especially young people who are highly involved in web-based activities and who already have particular vulnerabilities with regard to problem gambling. In addition, online gambling sites are accessible 24 hours a day and do not require the person to leave their home. Mobile and internet games that involve micro-transactions for chance-based items carry many of these same risks.⁶⁵

Those most likely to be vulnerable to harm

3.63 Though research into the effects of loot boxes is limited, submitters drew on the research into other forms of gambling to hypothesise that the following groups of people are more likely to be vulnerable or susceptible to gambling-related harms through interaction with loot boxes: children; people with impulse control issues; and people with mental health issues.⁶⁶

3.64 It was suggested that the potential harm to players from loot boxes can be divided into three categories:

- unhealthy obsession – where players become focussed on the game in a way that results in negative outcomes or losses for themselves or those close to them;
- spending more than they can afford – where players lose control or judgement to the extent that they suffer financial losses that result in negative consequences for themselves or those close to them; and

63 Victorian Responsible Gambling Foundation, *Submission 8*, p. 7.

64 Victorian Responsible Gambling Foundation, *Submission 8*, pp. 6–7.

65 RANZCP, *Submission 9*, p. 2.

66 Victorian Responsible Gambling Foundation, *Submission 8*, p. 8.

- spending more time than they can afford – as a product of immersion and obsession, players lose track of time and incur negative consequences for themselves or those close to them.⁶⁷

3.65 The VRGF noted that children are still developing cognition and impulse control and are therefore particularly vulnerable to conditioning effects, and promotions more generally. Children are also highly attracted to games, and in many cases, children are the desired audience. The VRGF submitted that 'even without random reinforcements there are many existing immersive features in games that already cause loss of time harms for children'.⁶⁸

3.66 Connect Health and Community, a not-for-profit community health organisation told the committee that its 'youth and family counsellors are seeing younger children impacted by gaming because of the enticing colours; rewards and the opportunities games provide to socialise with friends'.⁶⁹

3.67 The Australian Institute of Family Studies (AIFS) told the committee that loot boxes increase the risk of underage gambling. It stated that 'there are few controls to prevent underage access to in-game gambling via 'loot boxes' and other chance-based items'. In addition, the unregulated nature of 'skin gambling' also means that age restrictions are largely absent on unlicensed 'skin gambling' sites. The AIFS submitted that:

Advertising, both traditional and through peer-to-peer networks, of other products on these sites, makes eSports, betting in 'skins', 'skin' lottery, casino games and other forms of gambling easily accessible to underage gamers.⁷⁰

3.68 The AIFS also noted that a lack of understanding of the issue amongst those 'not versed in gaming culture' means that 'such practices are often unclear to parents and, therefore, difficult for them to supervise'. It noted that there are widespread anecdotal reports of minors purchasing in-game items using their parents' credit cards without their knowledge, for the purpose of 'skins gambling'.⁷¹

3.69 Adults with impulse control issues are also a significant group amongst those who experience gambling related harms. Similarly, mental health issues such as anxiety, and to a lesser extent, depression are significant amongst those with problem gambling. The VRGF explained that research indicates that immersion or zoning out occurs with certain types of gambling, and that this functions as a psychological escape for some people with these issues. However, the time and money expended is

67 Victorian Responsible Gambling Foundation, *Submission 8*, pp. 7–8.

68 Victorian Responsible Gambling Foundation, *Submission 8*, p. 8.

69 Connect Health and Community, *Submission 7*, p. 3.

70 Australian Institute of Family Studies (AIFS), *Submission 10*, p. 3.

71 AIFS, *Submission 10*, p. 3.

likely to exacerbate gambling related harms, but the loss of control and cognitive reflection triggered by immersion obscures or negates any realisation of the issue.⁷²

3.70 Connect Health and Community submitted that while much of the discussion around micro-transactions has focused on young people, there are a range of individuals including those who are older and have lower levels of computer and financial literacy who are also at risk of gambling-related harms. It submitted that:

While these clients are wary of electronic gaming machines in pubs and clubs they are lured into games such as Candy Crush which encourage the buying of in-game item using micro-transactions. These include spinning wheels to win tools to complete the game or additional lives. Spending on these games can become a problem for people of all ages.⁷³

3.71 The RANZCP also noted that gaming disorder has recently been recognised in the ICD-11 and that individuals with gaming disorder are likely to be vulnerable to associated addictions including problem gambling, with potential overlap between gambling and gaming disorders. It submitted that 'as such, people with gaming and/or gambling disorder may be particularly vulnerable to developing addictive behaviours towards micro-transactions involving chance-based items available within the games they play'. The RANZCP stated that this is particularly, though not exclusively, the case when 'rewards are important for gameplay, especially when the importance of those rewards renders the game 'pay-to-win''.⁷⁴

Normalisation of gambling

3.72 For submitters that argued that loot boxes meet the psychological criteria for gambling, concern was also expressed that loot boxes may operate to normalise gambling activities to children and young players. The growth and popularity of loot boxes and simulated gambling 'means that young people are being exposed, at a minimum, to experiences that mimic gambling' and this 'has the potential to normalise gambling as a part of the experience of playing online and video games'.⁷⁵

3.73 The Association of Heads of Independent Schools of Australia (AHISA), for example, stated that research undertaken for the NSW Government concluded that 'exposure to gambling at formative stages of development is a risk factor for the normalisation of gambling as a recreational activity'. In addition, it was noted that research indicates that 'the scale of the risk of harm to children and young people in regard to online gambling is significant, given the extent of children's exposure to simulated gambling games and to in-game gambling scenarios'.⁷⁶

72 Victorian Responsible Gambling Foundation, *Submission 8*, p. 8.

73 Connect Health and Community, *Submission 7*, p. 4.

74 RANZCP, *Submission 9*, pp. 2-3.

75 Victorian Government, *Submission 35*, p. 1.

76 AHISA, *Submission 5*, p. 8.

3.74 Similarly, the AIFS submitted that loot boxes familiarises players, many of whom are minors, with a gambling activity that is almost identical to other forms of gambling. It noted that loot boxes coexist with 'lotteries, eSports betting and other more explicit gambling activities played in virtual currency'. The AIFS described this process as 'gamblification' and stated that it is analogous to the processes which exist in the 'context of sports betting, whereby gambling practices are becoming increasingly normalised as an inherent component of sports engagement'.⁷⁷

3.75 Connect Health and Community submitted that it has been 'increasingly concerned about the monetisation of gaming over a period of time' as 'predominately young men [are] graduating from gaming to sports betting and other forms of gambling'. It stated that 'recent research showed that 29% of the surveyed young men were placing bets on fantasy sports games weekly'.⁷⁸

3.76 The committee also received evidence from individuals who expressed concern that loot boxes normalise gambling for children, and that this will have later negative consequences for them. For example, one submitter stated that:

My wife is not a gamer, and has no history with games before or after the lootbox craze. My children have frequently been able to convince her to pay for random digital prizes in the hope of getting something they want - and never getting it. My main concern is that this form of gambling and addiction is being normalised for my children, so that when they have their own source of income they won't think twice about spending it on these items.⁷⁹

3.77 Similarly, Ms Stephanie Gray submitted that where children have been conditioned to view gambling as 'good' through positive reinforcement mechanisms found in games, the process of transitioning to 'adult gambling' will be 'easy'. Ms Gray stated:

When people conditioned to think that gambling is good make the transition to adult gambling (which will be easy considering they've been doing it in games for so long and see it as a good / fun thing to do, the prospect of doing it to win money as an adult will also look the same) this will have severely negative and dangerous effects for the young adult.⁸⁰

3.78 Submitters also noted the impact of gambling-related harms in Australia 'including on household functioning and relationships, health and wellbeing, and productivity and employment. In more extreme cases, these harms can lead to family breakdown, family violence and other crimes, mental illness and suicide'. As such,

77 AIFS, *Submission 10*, p. 2.

78 Connect Health and Community, *Submission 7*, p. 3.

79 Name withheld, *Submission 13*, p. 1. See also Mr Michael Rigby, *Submission 31*, p. 1.

80 Ms Stephanie Gray, *Submission 30*, p. 1.

'preventing further normalisation of gambling through 'loot boxes' in video games is a sensible public health measure'. The AIFS stated:

Gambling is recognised as a significant public health and policy issue in Australia. We submit that normalising gambling to young people through the provision of 'loot boxes' in online video games constitutes an additional, avoidable public health risk.⁸¹

3.79 However, IGEA submitted that 'research on whether loot boxes are harmful to players and whether the mechanic risks the "normalisation" of gambling is limited'. It highlighted that a number of researchers have stated that 'research into simulated gambling is in its infancy' and that more research needs to be undertaken. IGEA also highlighted that much of the research currently available relates to social gambling games and practice games rather than simulated gambling, or loot boxes. It stated:

...the limited amount of research conducted so far predominantly relates to simulated gambling games, which as described above, are video games that are very much designed to look, feel and play like traditional gambling games. Loot boxes are not designed to mimic traditional gambling activities in the same way that simulated gambling games are, yet even when it comes to these more overt forms of gambling games, research into "normalisation" is still inconclusive.⁸²

81 AIFS, *Submission 10*, p. 3.

82 IGEA, *Submission 3*, pp. 14–15.

Chapter 4

Need for government response

4.1 It was argued that regardless of whether loot boxes meet the current legal definition of gambling under the *Interactive Gambling Act 2001* (IGA), the potential negative impact of loot boxes on users, particularly underage and vulnerable users, is such that some form of government intervention is required.

4.2 While submitters provided a range of suggestions, evidence largely focussed on three key strategies: ensuring adequate consumer protection frameworks are established, including enhancing educational material and improving parental controls or opt-out mechanisms; amending the classification framework to restrict underage access to games containing loot boxes; and improving the labelling of games containing loot boxes.

4.3 The video game industry also expressed its willingness to continue to work with regulators to ensure the protection of children and vulnerable users from harm eventuating from video games.

4.4 This chapter outlines the evidence received in relation to these matters.

Lack of homogeneity

4.5 Submitters highlighted that before government intervention is considered, it is important to note that loot boxes are not a homogenous mechanism and that the risk of harm to users varies according to both loot box characteristics, and user vulnerabilities. As such, any government response must be nuanced in its approach.

4.6 Ms Margaret Anderson, Director, Classification Board, stated that 'one of the important notions...is that this whole construct of a loot box is incredibly broad and...there is no easy clear definition'. Ms Anderson also told the committee that 'whether or not a loot box is akin to gambling is something [which should be kept]...separate from the other kinds of games where you have very clear simulated real life gambling taking place'.¹

4.7 It was suggested that the loot boxes most in need of a government response are those which meet the psychological criteria for gambling as outlined in Chapter 3, and which have the ability for users to 'cash out' items. It was suggested that other types of loot boxes also warrant a government response, but arguably less stringent regulation. For example, Dr James Sauer and Dr Aaron Drummond (Sauer and Drummond) recommended a 'two-tiered regulatory response' as described below.

1 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 37.

- Loot boxes which meet the psychological definition of gambling and the legal definition, or where loot boxes meet the psychological definition of gambling and where winnings can be 'cashed out', should be subject to regulation which restricts access to players over the legal gambling age. Further, games that allow players to cash out items via the distribution platform itself may 'warrant regulatory oversight as bona fide gambling operations'.²
- In addition, games which include loot boxes which meet the psychological definition of gambling but do not include the ability to cash out winnings, should be reviewed and classified with an increased recommended minimum age.³

4.8 Dr Sauer argued that any government response should consider the mechanics of the loot box system, and in particular how the system is accessed. Dr Sauer explained:

We've mentioned a couple of times this idea that not all loot boxes are created equal and not all loot boxes are homogenous. One criteria that we haven't mentioned explicitly yet but I think is import to consider is that, in the loot box mechanisms that we investigated, of the 22, there were four that didn't involve a cash purchase. Access to the reward mechanism was based on something other than payment. In informal conversations I've had with gamers and being a gamer myself...there's a difference with a reward that you get based on merit. You achieve something in the game. You complete a difficult task and you get access to a reward...Those are, I think, qualitatively different from mechanisms that you have to pay to access.⁴

4.9 Professor Elizabeth Handsley, President, Australian Council on Children and the Media (ACCM) told the committee that where loot boxes are accessed through skill, 'it seems to be quite a different issue' as the primary concern is the 'potential for money to be spent that people don't have'. Professor Handsley explained:

For example, it's no longer predatory monetisation because the company isn't earning anything from it. They're rewarding skill rather than providing something in return for money. That does change the dynamic somewhat.⁵

4.10 Dr Sauer concluded that in considering a response to loot boxes, the five psychological criteria of gambling could be used to determine 'which types of loot

2 Dr James Sauer and Dr Aaron Drummond, *Submission 3*, p. 7.

3 Dr James Sauer and Dr Aaron Drummond, *Submission 3*, p. 7. Games classification will be expanded later in this chapter.

4 Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 6.

5 Professor Elizabeth Handsley, Australian Council on Children and the Media (ACCM), *Proof Committee Hansard*, 17 August 2018, p. 23.

boxes are more or less likely to be problematic' and that 'the issues of an exchange of money seems to us to be the first to consider'.⁶

Need for regulation

4.11 Submitters argued that consumer protection and regulatory frameworks in relation to loot boxes are 'largely absent in Australia'⁷ though it was noted that some individual game publishers have voluntarily adopted age restrictions on major distribution platforms such as *Xbox Network*, *Steam* and *PS Store*. However, it is 'not clear how robust these restrictions are'.⁸

4.12 Mr Tony Phillips, Strategic Advisor, Knowledge and Policy, Victorian Responsible Gambling Foundation (VRGF), told the committee that 'there is a case for stronger regulation than there is currently'. In particular:

...there are very few regulations in place that seem to address or be built on assessments of matters such as whether or how children interact with loot boxes, the effects that this might have and the risk of features of loot boxes creating obsessive or loss-of-control harms among those who use them regularly or frequently.⁹

4.13 The Australian Institute of Family Studies (AIFS) recommended that loot boxes should be a 'key priority for regulation'. It submitted that the in-game loot box mechanism is a 'key functional element in allowing the inter-change between various forms of virtual and real currency, and it facilitates a wider 'skin' gambling economy'. Further:

In-game payment for the chance to open 'loot boxes containing random but potentially valuable virtual items should also be understood as a gambling practice. At present 'loot-box' games are available to players with no age verification, and without any harm prevention measures in place.¹⁰

4.14 It was recommended that regulation needs to consider two aspects: first, whether it is appropriate that minors are exposed to a mechanism that is psychologically similar to other forms of gambling, and whether restrictions of access should be implemented; and secondly, whether consumer advice and consumer protections are required to ensure that players, and the parents and guardians of underage players are able to make informed choices regarding exposure to loot boxes.¹¹

6 Dr James Sauer, *Proof Committee Hansard*, 17 August 2018, p. 6.

7 Dr James Sauer and Dr Aaron Drummond, *Submission 3*, p. 2.

8 Dr James Sauer and Dr Aaron Drummond, *Submission 3*, p. 6.

9 Mr Tony Phillips, Victorian Responsible Gambling Foundation (VRGF), *Proof Committee Hansard*, 17 August 2018, p. 14.

10 Australian Institute of Family Studies, *Submission 10*, p. 4.

11 Dr Drummond, *Proof Committee Hansard*, 17 August 2018, p. 4.

Consumer protection

4.15 It was argued that one of the key reasons for increased regulation is the need for improved consumer protection. In particular, ensuring: consumers are aware of the costs associated with loot boxes; that they are able to make rational decisions regarding purchases; and that players are provided with sufficient information to make informed choices. For example, Mr Phillips, VRGF, stated:

That's where we're really asking questions such as: are consumers properly aware of the prices that they're paying for what they're doing? Are they being sent appropriate price signals? Are they able to make rational decisions about whether they're getting value for their money, or is there an element of manipulation going on there? Is there an element of omission of telling people things that they need to know? For that matter, coming out of that consumer strand: should people have the right to choose, when they are playing games, not to be exposed to loot boxes and the conditioning effects that come from certain types of loot boxes? Should consumers have the ability to opt out?¹²

4.16 Some submitters concluded that currently, players have 'literally no idea what they are purchasing for their money'.¹³

4.17 However, the Interactive Games and Entertainment Association (IGEA) submitted that:

Loot boxes are no different than the many other "surprise" reward consumer products that already exist in the market, all of which are subject to the current consumer protection and regulatory framework. It would not be appropriate to impose a special regulation on the video game industry.¹⁴

4.18 IGEA submitted that the *Competition and Consumer Act 2010*, including the Australian Consumer Law, provides consumer protections that would apply to the sale of loot boxes in video games. In particular, game publishers are required to ensure that they do not engage in misleading or deceptive conduct (or conduct that is likely to mislead or deceive). IGEA argued that:

If there are concerns about the advertising and operation of loot boxes, including that such advertising and operation are misleading or deceptive, Australia's current consumer protection laws are well placed to address such concerns. The penalties for contravening the Australian Consumer Law are very significant (particularly thanks to recent reforms) and thus operate as an effective deterrent to misleading and deceptive practices.¹⁵

12 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 14.

13 Mr Glen Bruton, *Submission 19*, p.1.

14 Interactive Games and Entertainment Association (IGEA), *Submission 3*, p. 11.

15 IGEA, *Submission 3*, p. 11.

4.19 IGEA noted a suite of other laws, enforcement options and initiatives which would also apply to loot boxes including:

- the common law of contract, including in relation to the legal capacity of minors and children to enter contracts;
- laws relating to electronic transactions;
- state and territory sale of goods laws;
- state and territory laws relating to minors entering contracts;
- laws relating to pre-contractual conduct and disclosure obligations which may apply when accessing payment facilities on mobile devices; and
- the law protecting personal information collected by companies.¹⁶

4.20 Further, in 2013, the Commonwealth Consumer Affairs Advisory Council released its report 'App purchases by Australian consumers on mobile and handheld devices'. IGEA highlighted that:

This report did not identify the need for additional regulation, and acknowledged that the existing consumer laws and other regulatory frameworks were adequate to address any potential issues with in-game purchases, including micro-transactions (and by extension, loot boxes). Since this report, the video game industry has continued to improve the use of micro-transactions in games, including through the use of parental controls, disclaimers and detailed disclosures.¹⁷

Classification

4.21 The following sections outline the current classification arrangements as they apply to video games, and the recommendations made by witnesses that the National Classification Scheme should be amended to restrict or regulate access to loot boxes.

National Classification Scheme

4.22 The National Classification Scheme is a cooperative arrangement between the Australian and state and territory governments. The Australian Government is responsible for classifying computer games, while state and territory governments are responsible for regulating the sale, exhibition and advertising of those games.¹⁸

4.23 Under the National Classification Scheme, computer games must be classified before they are sold or published in Australia, unless the game is exempt from classification. The Classification Board is established under the *Classification (Publications, Films and Computer Games) Act 1995* (Classification Act), and is

16 IGEA, *Submission 3*, p. 11–12.

17 IGEA, *Submission 3*, p. 12.

18 Mr George Sotiropoulos, Assistant Secretary, Classification Branch, Department of Communications and the Arts, *Proof Committee Hansard*, 17 August 2018, p. 36.

responsible for classifying games submitted to it in accordance with the National Classification Code, and Guidelines for the Classification of Computer Games 2012. Both the Code and the guidelines are established under the Classification Act. It should be noted that any amendments to the Code or guidelines would also require the agreement of all participating ministers as the National Classification Scheme is administered under an intergovernmental agreement between the Australian and state and territory governments.¹⁹

4.24 Under the National Code and the guidelines, computer games are able to be assigned a range of classifications from G to R18+, and if a game cannot be accommodated in the R18+ category, it may be refused classification. Under the Classification Act, the Classification Board is required to assign consumer advice for each classification that is awarded.²⁰

4.25 Of particular relevance to this inquiry is the consumer advice that a game contains 'simulated gambling', however this is only used 'in relation to games where you are actually engaged in similar real life games, such as poker or slot machine style [games]'. In addition, the Classification Board may use the phrase 'gambling references', though this is only used occasionally and 'it depends very much on the context of the presentation of the game'.²¹

Classification process

4.26 In order for a game to be classified, an applicant can either supply the Classification Board with a copy of the game or they can provide a detailed written description of the gameplay footage. In addition, applicants must provide a 'contentious material statement' which addresses the six classifiable elements. These elements are: themes, violence, sex, coarse language, drug use and nudity. Gambling is considered under 'themes'.²²

4.27 Ms Anderson, Classification Board, told the committee that if an applicant applies using a detailed written description, they must answer a question which states 'Does the game contain gambling themes and/or elements (whether real or simulated)?' If the answer to this question is in the affirmative, then the applicant must provide a detailed description. Ms Anderson noted that the wording of this question does not provide any definition of what gambling may constitute and as such industry authorised assessors and applicants are likely to understand this question to mean

19 Mr George Sotiropoulos, Assistant Secretary, Classification Branch, Department of Communications and the Arts, *Proof Committee Hansard*, 17 August 2018, p. 36.

20 Ms Margaret Anderson, Director, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 36.

21 Ms Margaret Anderson, Director, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 36.

22 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 36.

'roulette, blackjack, poker, et cetera; they are not necessarily reading that question and then thinking of something such as the construct of a loot box, for example'.²³

4.28 Mr Sotiropolous, Assistant Secretary, Classification Branch, Department of Communications and the Arts, noted that that the department has recently commissioned qualitative research into the awareness, understanding and perceived impact of loot boxes; expectations of classification and government regulation for loot boxes; content with an element of chance; micro-transactions and games with simulated gambling. This research also examines the research that parents and carers undertake before allowing children to play games.²⁴

4.29 Mr Sotiropolous explained that though the department has not previously considered providing a definition of gambling, in light of 'what's been going on internationally and nationally around loot boxes and gambling, we commissioned the research to actually better understand the issues'.²⁵

4.30 In addition to providing a copy of the game or a detailed written description, Ms Anderson explained that applicants can have games assessed through the industry assessor scheme. Under this scheme industry participants are accredited by the Department of Communications and the Arts as authorised assessors of games. Ms Anderson told the committee that industry assessors provide the Classification Board with reports analysing games against the six classifiable elements, and including a recommendation that a game be classified at G, PG or M. Ms Anderson noted that industry assessors cannot make recommendations over the M rating.²⁶

4.31 Following the submission of an industry assessor report, the Deputy Director of the Classification Board reviews the report and determines whether the recommended classification and consumer advice is appropriate. If it is determined to be inappropriate, the game can be audited. In addition, the Board randomly audits between 10 and 18 per cent of applications per year.²⁷

23 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 38–39.

24 Mr George Sotiropolous, Department of Communications and the Arts, *Proof Committee Hansard*, 17 August 2018, p. 37.

25 Mr George Sotiropolous, Department of Communications and the Arts, *Proof Committee Hansard*, 17 August 2018, p. 39.

26 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 39.

27 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 39.

4.32 Ms Anderson told the committee that applicants are also able to have games classified by demonstrating the game to the Board. Ms Anderson explained that this is often utilised for 'very high-profile complex' games.²⁸

International Age Rating Coalition

4.33 Due to the volume of digital games being developed and published, Australia became a founding member of the International Age Rating Coalition (IARC), a partnership between Australia, Canada, Europe, Brazil, South Korea, and the United States of America. The IARC established a questionnaire to classify games in participating shopfronts including Google Play, Microsoft, Nintendo, Sony and Oculus. The questionnaire is completed by game developers and is processed using an algorithm which produces a classification rating for each of the member jurisdictions. Mr Sotiropoulos, Department of Communications and the Arts, explained that the IARC classification tool has classified over 800,000 games over the past two years.²⁹

4.34 Under the IARC system, there is also a global review process known as 'global overrides' where an alert is generated if a member country is assessing a game. Mr Sotiropoulos explained:

Typically, what happens in each year, at least the top 2000 or 3000 games by users will be reviewed by one or other of the participating countries. And, what happens is, once you assess the game, the original IARC rating for the country can be changed. So, if you do a review and the rating seems too low, we can lift that and we'll get that advice. So, each week, we get advice from all the countries of what reviews they've done. We'll go through each of those reviews, assess them and determine whether, based on that evidence, we should change our rating. Obviously, the board actually does have the power to revoke and replace any IARC decision, so we work with the board on those global overrides. Where there's something contentious, staff assessors will go in and play the game themselves and, based on that, they'll make an assessment. Then, they'll go and see the director and the board, and discuss that to make the change.³⁰

28 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 39.

29 Mr George Sotiropoulos, *Proof Committee Hansard*, 17 August 2018, p. 36.

30 Mr George Sotiropoulos, *Proof Committee Hansard*, 17 August 2018, p. 41.

Mandatory classification

4.35 The AIFS noted that the Classification Guidelines currently 'do not explicitly address gambling (although gambling appears to be classified under the category of 'themes' in a somewhat adhoc manner)'. Further:

The classification system currently treats games as content only, rather than recognising the way in which they constitute or facilitate specific practice, such as gambling in virtual currency.³¹

4.36 The committee heard recommendations that the Australian Classification Board should 'consider revising their guidelines to ensure all games with loot box systems that meet the psychological definitions of gambling are placed in an age-restricted category (either MA15+ or R18+)'.³² For example, the New South Wales Government suggested that the Australian Government could consider whether the Classification Board could award games which contain 'gambling like features' a higher age classification, even where the game itself does not constitute gambling. This would include:

...for example, where a game includes a loot box that involves features that mirror or are similar to those included in-game on electronic gaming machines, such as "slot-based" features to award prizes, or features that use sensory effects to encourage participation in the feature, such as flashing lights and reward-based sounds.³³

4.37 Sauer and Drummond argued that the guidelines should consider the prominence of loot box systems in a game, and the specific features of the system (e.g. the reinforcement schedules in operation and the odds of obtaining very high utility/desirability items).³⁴ Dr Drummond stated:

...anything that's got the ability to cash out and meets all five of those criteria that we've outlined psychologically to represent gambling would actually then be in a restricted category – possibly R18+. Where they were less similar – perhaps they don't meet all the criteria – perhaps it would be more appropriate to put them in an MA15+ restricted category in those cases.³⁵

4.38 Similarly, Professor Handsley, ACCM, told the committee that consideration should be given to 'the development of a rule which would automatically assign a classification of R18+ to any content that amounts to gambling or is similar to

31 Australian Institute of Family Studies, *Submission 10*, pp. 3–4.

32 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 7.

33 New South Wales Government, *Submission 33*, pp. 3–4. See also, Attorney-General and Minister for Justice (Qld), *Submission 1*, p. 3; Victorian Government, *Submission 35*, p. 2.

34 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 7.

35 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, pp. 5–6.

gambling, because people under 18 are not allowed to gamble, and therefore, they should not be exposed to gambling content in the games that they play'.³⁶

4.39 However, Professor Handsley, like Sauer and Drummond, noted that consideration should be given to the mechanics of loot boxes when determining classification. Professor Handsley explained:

One might even have a graded system where certain kinds of loot boxes would be MA15+ and others would be R18+. We would draw the line, hopefully, based on the potential for psychological harm as well as the monetisation aspect. If not all loot boxes involved monetisation then that could be taken into account as well.³⁷

4.40 Classifying games containing loot boxes as MA15+ or R18+ was described as carrying a 'strong message to parents and also ultimately to young people and even children about the suitability of content and the need to be aware of that content'. Professor Handsley stated that:

We would be quite confident that a lot of parents and carers who wouldn't be so terribly concerned about their children playing games that they've accessed online if they became aware that those games were rated R18+ or MA15+ would wing into action and take more notice and take more care about that kind of content...Nothing is ever going to stop 100 per cent of children and young people from accessing inappropriate content but we know that it would greatly improve the situation as far as children accessing inappropriate content is concerned'.³⁸

4.41 Mr Alex Knoop argued that including loot boxes as a classifiable element with a mandatory R18+ rating would both automatically exclude minors from 'material likely to cause harm' and allow adults to 'play what they want', which are objectives of the Classification Board.³⁹

4.42 It was also submitted that 'the change in ratings may encourage games developers to reduce chance based content in their products'⁴⁰ and discourage 'developers and publishers from including them in games targeted at minors'.⁴¹ Mr Knoop told the committee that a mandatory R18+ rating would:

...force developers to make serious considerations as to who their target audience will be, namely if they choose to pursue loot crates they can only target adults, or they can remove the loot crates in favour of a lesser

36 Professor Elizabeth Handsley, ACCM, *Proof Committee Hansard*, 17 August 2018, p. 22.

37 Professor Elizabeth Handsley, ACCM, *Proof Committee Hansard*, 17 August 2018, p. 24.

38 Professor Elizabeth Handsley, ACCM, *Proof Committee Hansard*, 17 August 2018, p. 24.

39 Mr Alex Knoop, *Submission 12*, p. 34.

40 Connect Health and Community, *Submission 7*, p. 3.

41 Mr Julian Rzechowicz, *Submission 22*, pp. 5-6.

classification, such as MA15+ or M etc. potentially expanding their customer base.⁴²

4.43 However, Ms Anderson, Classification Board expressed concern regarding any proposal for 'blanket or sweeping' requirements that games containing loot boxes be classified at a particular rating. Ms Anderson told the committee:

I think the nuance and innuendo that sits in games is huge. I would be very concerned, if we were to suddenly go from having a degree of flexibility that we have in our current classification system to replacing that with a very black and white direction that all games with any kind of direct or simulated gambling content or reference in any shape, manner or form to gambling would automatically be R18+.⁴³

4.44 Ms Anderson suggested that it may be appropriate for some styles of loot box mechanisms 'to be in some kind of age-restricted classification' but suggested that this issue is 'very fertile ground for further discussion and research'.⁴⁴

Labelling

4.45 It was recommended that games which contain loot boxes should be clearly labelled as such.⁴⁵ For example, Sauer and Drummond recommended that the Australian Classification Board adopt the content descriptor 'Simulated Gambling', as the Entertainment Software Ratings Board (ESRB) in the United States of America has. Sauer and Drummond recommended that distributors be required to apply this descriptor to all games with loot boxes that meet the psychological criteria for gambling. The descriptor should be displayed next to the classification either on the box or the website of the game.⁴⁶

4.46 Dr Drummond told the committee that labelling would 'increase the consumer advice that's available'. Dr Drummond explained:

Currently, this information is not given to consumers on the box of the game when you go to purchase it or on the website of the game when you go to purchase it. This is something that could easily be done. This would just be additional information to the consumers saying there are loot boxes in this game, there is simulated gambling in this game – whatever the content descriptor is that you would like to use for that.⁴⁷

42 Mr Alex Knoop, *Submission 12*, p. 35..

43 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, pp. 41–42.

44 Ms Margaret Anderson, Classification Board, *Proof Committee Hansard*, 17 August 2018, p. 42.

45 Australian Institute of Family Studies, *Submission 10*, p. 5.

46 Dr James Sauer and Dr Aaron Drummond, *Submission 2*, p. 7.

47 Dr Aaron Drummond, *Proof Committee Hansard*, 17 August 2018, p. 5.

4.47 Mr Blake Mizzi, Board Member, Game Developers Association of Australia (GDAA), noted that the ESRB had received an increased volume of complaints regarding loot boxes. Following an investigation, it found that:

...in almost all cases, parents and the aggrieved parties simply misunderstood what a loot box was or they misunderstood that in-game purchases were actually with real dollars. In many cases they had provide payment details to their children, not realising that their children could make repeat purchases and that their children didn't realise the value of these transactions.⁴⁸

4.48 The ESRB made a decision to include a description in the classification label that video games include in-game purchases, 'as you would if the game contained drugs or violence or adult themes'.⁴⁹ Mr Mizzi offered his support for the recommendation that games sold in Australia should be labelled if they include in-game purchases.⁵⁰

4.49 Mr Mizzi, GDAA, noted that some app stores have unilaterally begun changing the descriptions of games to include in-app purchases. For example, the Apple App Store has changed its description of 'free games' to 'free, offers in-app purchases'. Mr Mizzi told the committee that 'the reason behind this is not due to any regulation change around the world. It's in the process for game developers to look after their player base, because that's the greatest incentive there is'.⁵¹

Limits and exclusions

4.50 Submitters argued that players should be provided with the opportunity to control their interaction with loot boxes through self-exclusion or self-selected limits on loot box interactions. For example, Mr Phillips, VRGF, told the committee:

...players should be able to put a limit on the number of loot boxes that were made available to them...They might even be able to limit the amount that they could spend on loot boxes so that again, as is already the case with voluntary pre-commitment here in Victoria [for other forms of gambling such as pokies], someone can say, 'I want to put a limit; I don't want to spend more than \$100 in a week,' and they get told when they reach that limit. In fact, in the case of loot boxes you might want to consider even putting in a hard limit, where just that is what will happen, and then there'll be 24 hours before it resets.⁵²

48 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, pp. 10–11.

49 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, pp. 10–11.

50 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 12.

51 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 11.

52 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 15. See also Mr Julian Rzechowicz, *Submission 22*, p. 5.

4.51 Mr Phillips added that 'players should also be able to self-exclude or opt out of purchasing or being offered loot boxes'⁵³ and that this could be achieved through the provision of loot-box-free versions of games. Mr Shaw, VRGF stated that:

One thing we looked at was whether you could actually have a loot-box-free version of the game. You may have two versions, one where the loot boxes were included, for people who wanted to play that style of game. You might have another version where there is no loot box or payment for loot boxes involved. If people wanted to play in a different way they would be able to do so.⁵⁴

4.52 Similarly, Connect Health and Community submitted that game developers should be required to include a parental lock feature in the setting menu. Further:

Where this feature is made available it should require the reacceptance of terms following significant upgrades which change gambling features or reduce the likelihood of achieving the desired outcome.⁵⁵

4.53 Other suggestions to control spending, particularly by children, included that games should be required to notify an account holder such as a parent or guardian when a purchase is made,⁵⁶ or parents should be required to confirm purchases.⁵⁷

4.54 It was particularly highlighted that parents often do not understand video games and are seeking resources and more education on the issue, both for themselves and their children. Mr Stephen Dupon, Director, Institute of Games stated that:

In terms of parents: there is a great lack of understanding about what games are and the impact that they have on children. I think there is a lack of mature conversation on the impact of games, especially in the media or especially when you talk to people. Either they believe that all games are bad or all games are good. I believe there should be, or there is a need for, a broader conversation and more resources and information for parents so they can form better opinions and better understanding.⁵⁸

4.55 The development of public education campaigns to better inform gamers, parents and the general public was also recommended by the AIFS. It submitted that information regarding the harms associated with micro-transactions, and gambling more generally, in online video games should be made available.⁵⁹

53 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 15.

54 Mr Lindsay Shaw, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 17.

55 Connect Health and Community, *Submission 7*, p. 3.

56 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 15.

57 Mr Isaac Leeder, *Submission 28*, p. 1.

58 Mr Stephen Dupon, Institute of Games, *Proof Committee Hansard*, 17 August 2018, p. 28.

59 Australian Institute of Family Studies, *Submission 10*, p. 5.

4.56 Similarly Mr Dupon stated that 'there needs to be more resources and prevention programs, and more education of children...I think they should be developed with the gaming industry in a co-designed way because, in my experience, the gaming industry has the best interests of children at heart as well'.⁶⁰

Disclosure of odds

4.57 As noted in Chapter 2, China made the decision to require games to display the odds associated with loot boxes in games. A number of witnesses recommended that the Australian Government implement a similar requirement. For example, Mr Phillips, VRGF submitted:

We thought that the odds of loot boxes containing any prizes on offer should be available, visible, and accessible. I think a point was made in an earlier part of this hearing that it should be at the time that you make the purchase. You should have a sense of how likely you are to actually get that purchase. That be done as odds, but it could also be done as it is in some of the pokies information...It could be something like 'the theoretical chances' or the 'theoretical amount of money you would have to spend to get this prize would be' based on what the odds would be. So you actually get a sense that this is not a \$1.99 purchase; in fact, theoretically it's much more likely you'll have to spend \$100 to get this, which would send you a better price signal.⁶¹

4.58 Mr Phillips conceded that in the case of poker machines, the disclosure of odds does not 'have much effect' on players at the 'severe end of harm' but that for players at a lower risk of gambling-related harm the information will be of assistance.⁶² Mr Shaw, VRGF, told the committee that the players at a lower risk of harm 'may not stop playing, but it [the knowledge of the odds] would temper the way that they do play'.⁶³ Mr Phillips concluded:

It's about people at an early stage being able to make a rational decision. You might say, 'I'd really like to win that prize', but then I tell you, 'Winning that prize will probably cost you \$100.' That changes what you think it's worth. That allows you to say what is the value in your head, as compared to the actual value you might have to pay, rather than pay \$1.99, pay another \$1.99, pay another \$1.99.⁶⁴

4.59 The AIFS described the introduction of such a disclosure requirement as 'an important response to addressing concerns regarding gambling in current 'loot box'

60 Mr Stephen Dupon, Institute of Games, *Proof Committee Hansard*, 17 August 2018, p. 27.

61 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 15. See also Mr Julian Rzechowicz, *Submission 22*, p. 5.

62 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 15.

63 Mr Lindsay Shaw, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 16.

64 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 16.

games where the odds have not routinely been disclosed'. It submitted that it should be:

...mandatory that players are provided with the odds of selecting each possible in-game item in an easily accessible and understandable way. The variable odds of achieving low value versus highly desired in-game items, and the cost in actual dollar terms of each 'loot box' item, should be clearly shown.⁶⁵

4.60 In addition, it was submitted that the disclosure of odds would offer additional consumer protections including by allowing the Australian Competition and Consumer Commission (ACCC) to 'pursue developers who deliberately mislead consumers'. The publication of odds would also expose games with 'astronomically low odds with virtually no chance of winning'. It also argued that the disclosure of odds would allow parents and guardians to make more informed decisions regarding purchases made by children.⁶⁶

4.61 However, the disclosure of odds was rejected by other witnesses as being 'fairly meaningless' and which has resulted in 'no change in player behaviour'.⁶⁷ Professor Handsley explained that 'the concept of probability is a fairly complex one and one that a lot of even adults have difficulty understanding, particularly if they have some exposure to problem gambling'. As such, 'it would not help at all for children or young people or...possibly even many adults to be disclosing the odds of gaining a particular item from a box before the purchase is made'.⁶⁸

4.62 Similarly, the AIFS noted that the mandatory disclosure of odds 'is only a partial measure, which may have limited effectiveness and does not address young people's access to gambling activities in online video games'.⁶⁹

Industry commitment and cooperation

4.63 Throughout the inquiry, the video game industry reiterated its commitment to ensuring the minimisation of the risk of harm to children, and pointed to a number of measures which have been implemented, including parental controls and labelling. For example, Mr Ron Curry, Chief Executive Officer, Interactive Games and Entertainment Association (IGEA), told the committee that:

The video-gaming industry takes its responsibility to its players, parents and guardians incredibly seriously, and so video games consoles and platforms provide parents and guardians with extensive and robust tools they can use to ensure that children and young users are not allowed to

65 Australian Institute of Family Studies, *Submission 10*, p. 5.

66 Mr Alex Knoop, *Submission 12*, p. 34.

67 Mr Blake Mizzi, GDAA, *Proof Committee Hansard*, 17 August 2018, p. 11.

68 Professor Elizabeth Handsley, ACCM, *Proof Committee Hansard*, 17 August 2018, p. 24.

69 Australian Institute of Family Studies, *Submission 10*, p. 4.

make in-game purchases without obtaining approval in advance. These tools extend to the purchase of any game content and micro-transactions, including loot boxes...⁷⁰

4.64 IGEA highlighted that a number of gaming platforms such as the Nintendo Switch, Xbox One and PlayStation 4 allow parents and guardians to establish purchase restrictions. For example, the Nintendo Switch allows parents to disable purchases outright, and automatically hide content based on the player's age, which prevents the purchase of this content.⁷¹ Mr Curry explained:

I'll start with the major console platforms. Each of them have parental controls. Each of those parental controls, apart from controlling the actual content based on classification, can actually control the spend. You can set up accounts that do not allow spending or that allow you to set a limit to the amount that can be spent. You can insert a certain amount that can only be spent up to. The iteration is slightly different depending on the console, but they are all pretty much the same. When you set up your console, you set up as a parent and you set up an account for your child. You can nominate there whether they can spend, and if they can spend, how much they can spend. If they can spend so much, how frequently can they spend that?⁷²

4.65 The AIFS agreed that in principle, concerns regarding loot boxes could be addressed by publishers themselves. It stated that this could occur through self-regulation or through requirements applied to the industry by regulators. The AIFS expressed a preference for the latter as this would enable 'surveillance measure to be instituted and monitored by an independent government regulatory body'. However, the AIFS noted that both approaches have been observed in response to loot boxes. For example, Apple introduced a requirement for the disclosure of odds for games sold through its IOS Apple store which include randomised virtual items for sale. As noted above, China also imposed a similar requirement for games sold in its jurisdiction.⁷³

4.66 It was suggested that an ethical framework for the video games industry based on the principles of child safety could be developed. Mr Dupon, Institute of Games suggested there are a number of existing frameworks which could be used as a model. For example, the Australian National Principles for Child Safe Organisations which were developed in 2017. This framework includes principles such as 'products or organisations that engage with children, or provide services or products to children, need to design their products with the safety of children as a priority'. Mr Dupon stated that this is 'lacking at the moment in video games'.⁷⁴

70 Mr Ron Curry, IGEA, 17 August 2018, *Proof Committee Hansard*, p. 31.

71 IGEA, *Submission 3*, pp. 12-13.

72 Mr Ron Curry, IGEA, *Proof Committee Hansard*, 17 August 2018, p. 33.

73 Australian Institute of Family Studies, *Submission 10*, p. 4.

74 Mr Stephen Dupon, Institute of Games, *Proof Committee Hansard*, 17 August 2018, p. 26.

4.67 It was also recommended that there should also be better reporting mechanisms, and policies and processes for the games industry to respond to child safety standards. Mr Dupon noted that at present there aren't 'good risk assessments' being conducted on video games and as a result 'we don't really know what the risks are'. Mr Dupon highlighted that risk assessments would ensure that risks to children could be appropriately mitigated.⁷⁵

4.68 Despite the evidence that some companies have implemented parental control mechanisms, the committee also received evidence from parents expressing concern that the video game industry does not provide adequate support to parents. For example, Mr Glen Bruton, stated that while he is an experienced gamer and is confident in his ability to control his children's spending on loot boxes, he is 'concerned with the seemingly deliberate lack of controls implemented' to assist him in doing so.⁷⁶

4.69 The willingness of industry to cooperate in ensuring the protection of children from harms related to video games was acknowledged by witnesses. For example, Mr Dupon stated that 'there is a great commitment to the safety of children and their wellbeing'. However, Mr Dupon also noted that 'at the same time, they [game developers] run a business and they have pressures to make money, just like any business will do'.⁷⁷

4.70 Similarly, the VRGF acknowledged that the use of micro-transactions as a revenue stream for the video game industry is 'legitimate' and noted that 'in many of the questions we're raising, it is not so much about an attack on micro-transactions within a game or a game based on micro-purchases; it's about the way in which they're being delivered and whether that form of delivery is actually in some ways manipulative or might be causing harm'.⁷⁸ Mr Shaw, VRGF, concluded that one of the Foundation's key concerns is where 'there's a convergence between gambling and gaming for children, and again, some of those harms that arise from that'.⁷⁹

4.71 However, representatives of the games industry told the committee that it is important that the games industry is not considered part of the gambling industry. Mr Mizzi, GDAA stated:

There are also clear separations currently between the gambling industry and the games industry, which we are. We typically make games about narrative storytelling, problem solving, puzzle solving, escapism, role playing, sports games, games about superheroes, board games, card games, strategy and educational games. The GDAA does not represent any

75 Mr Stephen Dupon, Institute of Games, *Proof Committee Hansard*, 17 August 2018, p. 26.

76 Mr Glen Bruton, *Submission 19*, p. 1.

77 Mr Stephen Dupon, Institute of Games, *Proof Committee Hansard*, 17 August 2018, p. 28.

78 Mr Tony Phillips, VRGF, *Proof Committee Hansard*, 17 August 2018, p. 18–19.

79 Mr Lindsay Shaw, *Proof Committee Hansard*, 17 August 2018, p. 19.

gambling or betting games companies. We support this inquiry and we really want to stop children from being exposed to the mechanics of gambling.⁸⁰

Prohibition

4.72 Some submitters argued that micro-transactions for chance-based items should be prohibited in online games available in Australia. For example, the AIFS stated that such a prohibition would:

...alleviate the public health risks and associated costs with further normalising gambling in the Australian community through the provision of these items in video games.⁸¹

4.73 The AIFS argued that together with banning loot boxes, the provision of alternative non-randomised mechanics could provide players with a preferable way of obtaining desired in-game items.⁸²

4.74 The committee also received a number of submissions from individuals calling for loot boxes to be prohibited. For example, Ms Stephanie Gray stated that:

Please take a hard stand against this gambling in games and make it illegal. Again make the chance based winning of items in a "loot box" illegal. Let them sell the items individually for a set \$ amount. But the "chance of winning" element needs to be removed. Even more so when companies are using algorithms to encourage people to buy them and then positively reinforce the purchase. That is extremely dangerous territory.⁸³

4.75 However, other submitters acknowledged that micro-transactions are an important source of revenue for game developers and publishers, and that banning loot boxes would have significant financial implications for the video game industry. For example, Mr Kieran Walsh, despite advocating for some form of regulation, submitted that 'the banning of loot boxes would cause quite a lot of harm to the video game industry'. Mr Walsh stated:

On the point about banning loot boxes completely hurting the video game industry, most of the games that include loot boxes are free to play but include loot boxes so the company making the game can make money to pay for the servers that people play on worldwide and for the development costs of making and maintaining the game. If loot boxes were removed completely, that avenue of revenue for those companies would be gone

80 Mr Blake Mizzi, GDA, *Proof Committee Hansard*, 17 August 2018, p. 9.

81 Australian Institute of Family Studies, *Submission 10*, p. 5.

82 Australian Institute of Family Studies, *Submission 10*, p. 5.

83 Ms Stephanie Gray, *Submission 30*, p. 2.

completely, effectively removing their way to pay for the ongoing costs of developing and maintaining a video game.⁸⁴

4.76 It was also noted that in the event of prohibition, consumers can circumvent regulation by utilising technologies such as VPNs to modify their digital location and gain access to international stores where micro-transactions are unregulated. For example, Mr Rzechowicz highlighted that:

...when consumers start to move to alternative regions to access digital goods, all local protections and requirements for transparency would be lost. Australia is a small market and in some cases developers may consider Australian law too costly (or without enough of a profit) to justify continual engagement. If this were to happen, and people were to start shifting regions to continue purchasing these goods, then local protections will have achieved nothing.⁸⁵

84 Mr Kieran Walsh, *Submission 16*, p. 2. The importance of micro-transactions as a revenue stream is outlined in Chapter 1.

85 Mr Julian Rzechowicz, *Submission 22*, p. 6.

Chapter 5

Committee view and recommendations

5.1 The video game industry is a creative industry providing interactive entertainment to millions of people around the world. In Australia alone, there are more than 200 studios employing over 1000 people in the creation of games of narrative story-telling, problem solving, escapism, role playing, sports games, games about superheroes, board games, card games, strategy and educational games.

5.2 As the video game industry has grown and evolved over the past twenty years, so too has its revenue streams. The introduction of micro-transactions through in-app or in-game purchases has revolutionised the economics of the video game industry. For example, the global video game industry is currently valued at approximately US\$117 billion, with 25 per cent of that value generated from micro-transactions. The value of the industry is projected to grow to US\$160 billion by 2022 and it is estimated that approximately 47 per cent of the industry's revenue will be sourced from micro-transactions.

5.3 Micro-transactions for chance-based items, or 'loot boxes' have been included in games for a number of years, however the introduction of loot boxes which provide game-play advantage rather than simply cosmetic items, is described as being the catalyst for much of the public criticism of the mechanism seen in recent years. The inclusion of so-called 'pay to win' loot boxes created such significant public backlash that a number of game developers removed existing loot boxes from games or released new games without loot boxes.

5.4 Beyond the criticism of 'pay to win' loot boxes, much of the public debate regarding loot boxes has centred on whether such micro-transactions constitute gambling, and should therefore be regulated accordingly. This debate has focussed on the legal definitions of gambling under federal and state and territory legislation; and the definition of gambling according to psychology.

5.5 In particular, it has been argued that even where loot boxes do not meet the legal definition of gambling, many loot boxes meet the five established psychological criteria for gambling, and as such, players may be at risk of developing gambling-related harms.

5.6 Regulators, both in Australia and around the world, have considered whether loot boxes meet the legal definition of gambling, and have formulated a variety of responses to the issue. These responses have ranged from determining that loot boxes do not constitute gambling to determining that loot boxes contravene gambling regulation and the sale or provision of loot boxes is therefore prohibited. Other regulators have introduced the requirement that games must publish the odds associated with loot boxes, and others have introduced labelling requirements.

However, a global consensus view on whether loot boxes constitute gambling has not been reached, nor has a uniform approach to dealing with the issue been adopted.

5.7 It is important to note that loot boxes are not a homogenous entity and many variations of the mechanism exist. In particular, there are a variety of ways in which loot boxes can be acquired including through game-play achievements and through direct purchase using real-world currency. Loot boxes can also differ according to whether the virtual items contained within can be monetised.

5.8 As such, definitive statements regarding the operation and effect of loot boxes in general are difficult. A range of stakeholders including regulatory agencies, and academics told the committee that loot boxes should be assessed on a case-by-case basis. However, there was broad consensus that where real-world currency is exchanged (that is, when loot boxes are purchased, where virtual items are bought and sold, or where both occur) loot boxes may most closely meet the definitions of gambling (both regulatory and psychological), and therefore a range of risks to players may exist.

Regulatory review

5.9 The committee acknowledges the community concern that the inclusion of loot box mechanisms in video games may be normalising gambling and gambling-like behaviour. The committee also acknowledges the concern that children and some vulnerable adults may suffer gambling-related harms as a result of interaction with loot box mechanisms included in video games.

5.10 However, it is important to note that in Australia, neither video games nor interactive gambling are unregulated spaces, and as such, video games containing loot boxes are already subject to regulation in a variety of ways. The Australian Government provides regulatory oversight through the:

- Department of Communications and the Arts;
- Australian Competition and Consumer Commission (ACCC);
- Australian Communications and Media Authority (ACMA);
- Office of the e-Safety Commissioner;
- Classification Board; and
- Department of Social Services.

5.11 Of particular note, video games are subject to review and classification by the Classification Board. The classification of games ensures that consumers are aware when games contain classifiable material, and allows consumers to make informed purchasing decisions. The scheme is a critical component in protecting children and vulnerable adults from harms related to video games, including where games contain gambling elements.

5.12 The committee also acknowledges the advice of the ACMA that it has not considered that loot boxes meet the definition of gambling as contained in the *Interactive Gambling Act 2001* (IGA), as virtual items redeemed from loot boxes do not have any monetary or other value. The ACMA told the committee that the Explanatory Memorandum for the IGA explicitly stated that to be considered a gambling service, a game must be played for a prize of monetary value.

5.13 The committee notes that the ACMA qualified this advice by stating that the particular features of a game or service must be considered on a case-by-case basis, and that statements about loot boxes more generally, are difficult.

5.14 The committee is aware that loot boxes are not a homogenous entity and that any policy or regulatory response, including the classification of games, should take account of this. The committee is also aware that research into the psychological impact of loot boxes on players is still in its infancy and it would be inappropriate to draw inferences from existing research. Until further research is complete, developing an evidence-based regulatory approach to mitigate against any harm which may arise from interaction with loot boxes is challenging. Nevertheless, with regards to loot boxes, the roles and responsibilities of Australian Government regulators may benefit from clarification and greater coordination to guard against any gaps in coverage.

5.15 The committee is of the view that the issue of loot boxes in video games is one which would benefit from a formal departmental review, led by the Department of Communications and the Arts. Such a review should address concerns around regulator roles and responsibilities, legal definitions, classifications and consumer protection.

Recommendation 1

5.16 The committee recommends that the Australian Government undertake a comprehensive review of loot boxes in video games. This review should be led by the Department of Communications and the Arts in conjunction with the ACMA, the ACCC, the Office of the e-Safety Commissioner, the Classification Board, and the Department of Social Services.

5.17 This review should commission further research into the potential for gambling-related harms to be experienced as a result of interaction with loot boxes; identify any regulatory or policy gaps which may exist in Australia's regulatory frameworks; examine the adequacy of the Classification Scheme as it relates to video games containing loot boxes; consider if existing consumer protection frameworks adequately address issues unique to loot boxes; and ensure that Australia's approach to the issue is consistent with international counterparts.

**Senator Jordon Steele-John
Chair
Senator for Western Australia**

Australian Greens' additional comments

Summary

1.1 The Australian Greens agree with many of the observations made within the Majority Report. However it is our view that evidence given in this inquiry clearly indicates the risk to children and vulnerable adults from developing gambling-related harms through interaction with loot boxes is of such significance that stronger regulatory action should be taken.

Legal definitions of gambling

1.2 We note that regulators around the world have been bound by the definitions of gambling included in current legislation when considering the status of loot boxes as a form of gambling. In particular, throughout the inquiry it was argued that to be considered a gambling service, a game must be played for a prize or monetary value. Although loot boxes are not homogenous entities and therefore need to be considered on a case-by-case basis, it appears evident that the monetisation of virtual items is widespread and common practice.

1.3 It is also clear that a broader concept of utility and value operates in the video-game community with subjective value created through the combination of item scarcity and competitive advantage. Variable scarcity can affect the way in which players perceive the value of virtual items and can motivate players to continue purchasing loot boxes in an attempt to obtain such items. Rare items are often referred to as epic or legendary, and obtaining such items can change the way in which players are perceived by other players, including adding to a player's prestige or status. As such, items have a tangible value to players beyond monetisation.

1.4 The Australian Greens are of the view that the rapid evolution of online activity requires the regular review of legislative definitions to ensure that regulatory gaps do not eventuate, particularly where risks to children and vulnerable adults may exist.

Psychological definition of gambling

1.5 Through the inquiry we heard that many loot boxes meet the psychological definition of gambling, even where they do not meet legal definitions. The Australian Greens note with concern the evidence that a number of loot box mechanisms contained in home game console and PC release games meet the five psychological criteria of gambling. Of particular concern were loot boxes which both meet the five psychological criteria, and which allow the monetisation of virtual items. We accept the evidence that these loot boxes would most closely meet the accepted definitions, both legal and psychological, of gambling.

Psychological mechanisms

1.6 The Australian Greens were concerned to hear that loot boxes utilise psychological mechanisms commonly seen in other forms of gambling, including poker machines. These mechanisms include variable ratio reinforcement schedules, game-play experience, entrapment, and ready and constant availability. Further, there is evidence that outcomes are being manipulated through the configuration of loot boxes according to player behaviour.

1.7 We were also concerned to learn that loot boxes encourage repeated player spending through intrusive and unavoidable solicitations, limited disclosure of the product, and systems which manipulate reward outcomes to reinforce purchasing behaviours at the expense of encouraging skilful or strategic play.

Similarity to poker machines

1.8 The Australian Greens were disturbed to learn that the variable ratio reinforcement schedule mechanism more commonly found in poker machines, underpins the mechanism of many loot boxes. This mechanism, which rewards certain behaviours to encourage the repetition of such behaviour, but delivers rewards on a seemingly random schedule, results in the rapid acquisition of extremely persistent behaviours which are robust to extinction. In particular, players are unable to determine how many purchases are required to obtain a particular item they see, and the exact number of required purchases varies. We noted with concern the assessment by the Royal Australian and New Zealand College of Psychiatrists (RANZCP) that the risk to players who engage with loot boxes of developing gambling-related harms is likely to be similar to the risk posed by other forms of gambling that utilise variable ratio reinforcement schedules.

1.9 In addition to the use of variable ratio reinforcement schedules, we heard that the game-play experience of opening many loot boxes mirrors the gameplay experience of using a poker machine. In particular, the sensory feedback of lights, and sound, and the use of rolling graphics showing potential prizes were highlighted by witnesses as being almost indistinguishable from the experience of playing a poker machine. Further, other mechanisms utilised by both loot boxes and poker machines include rapid playing speeds, rapid and immediate payouts, and the potential to quickly and easily multiply transactions.

1.10 We are concerned that such mechanisms which closely resemble poker machines appear to be widely accessible to children and vulnerable adults, without apparent restriction or regulation.

In-game currency

1.11 Another similarity that loot boxes share with other forms of gambling is the dematerialisation of payment through the use of symbolic currency. Players purchase symbolic currency with real-world money, and then use the symbolic currency to purchase loot boxes. This is similar to the use of casino chips to make bets and play

games, and this process is known to reduce the ability of players to monitor and track spending, which can lead to overspending.

1.12 Children are particularly vulnerable to the effect of dematerialisation of payment as it can be difficult to conceptualise that an interaction using virtual currency in fact has real-world economic consequences. Furthermore, there is research to suggest that the conversion into abstract currency may increase people's willingness to spend money when it is in abstract forms rather than real-world dollars.

Entrapment

1.13 Loot boxes can reinforce and perpetuate continued play which sustains ongoing spending through so-called 'entrapment'. This is similar to 'chasing losses' which is seen in other forms of gambling. In entrapment situations, players often spend an escalating amount of money which begets further spending as players eventually believe that too much has been invested to stop.

Potential for harm

1.14 The Australian Greens note the evidence that because loot boxes are a relatively new phenomenon, there is little empirical research available regarding the potential for gambling-related harms to be experienced by players. Drs Zendle and Cairns provided the committee with what was described as the only current empirical evidence which demonstrates a link between loot boxes and problem gambling. This study hypothesised that loot boxes may be acting as a gateway to problem gambling amongst gamers, or alternatively, individuals who are problem gamblers tend to overspend on loot boxes due to the similarities between loot boxes and other forms of gambling. We are of the view that both propositions are troubling and, at the very least, warrants further research.

1.15 Through the inquiry analogous evidence was given which compared both the mechanics of loot boxes and the potential for gambling-related harms to be experienced, to other more widely researched forms of gambling. We found this evidence compelling, particularly in light of the evidence that loot boxes utilise a number of psychological mechanisms seen in other forms of gambling such as poker machines.

1.16 We accept that more research is required on the potential for harm associated with loot boxes. However we are of the view that existing research, particularly in relation to the psychological definitions of gambling as they apply to loot boxes is sufficient as to warrant the Australian Government taking urgent action on the issue.

Groups vulnerable to harm

1.17 In understanding the potential for loot boxes to cause harm, it is important to identify those groups most vulnerable to experiencing such harm. Much of the discussion has focused on the potential for children to experience gambling-related harms as a result of interaction with loot boxes. However, submitters have also argued

that there are also a range of other vulnerable persons, including adults with impulse control issues, and those with poor computer and financial literacy, who are at risk.

1.18 Children are still developing cognition and impulse control and are therefore particularly vulnerable to conditioning effects such as variable ratio reinforcement schedules. Children are also vulnerable to immersive features associated with games which cause loss of time harms. In addition, children are impacted by the use of enticing colours, rewards, and the social opportunities provided by games.

1.19 It is alarming that there appear to be few controls which prevent underage access to loot boxes, especially in light of the evidence that loot boxes are psychologically akin to other forms of gambling, even where they do not meet legal definitions.

1.20 There is considerable concern that even if loot boxes are not determined to be gambling according to legal definitions, the game play experience is similar enough that gambling is normalised for children. This normalisation may lead to children taking up other forms of gambling, and suffering subsequent gambling-related harms.

Need for regulation

1.21 The Australian Greens are of the view that the protection of children from gambling related harms warrants the introduction of regulatory measures to restrict access to loot boxes to those over the age of 18, and to ensure that consumers are made aware of the risks associated with loot boxes.

1.22 We accept the evidence that the industry has had to seek alternative sources of revenue to meet the increasing costs of game development, and acknowledges that micro-transactions are a significant source of income.

1.23 The Australian Greens are however concerned that without appropriate regulation, micro-transactions may become, or in some cases are, predatory monetisation schemes where children and vulnerable adults are exploited for profit utilising gambling mechanisms and strategies.

1.24 We do not believe that the introduction of measures such as appropriate labelling and classification are so onerous that the profitability of the video game industry would be in jeopardy.

Classification and labelling

1.25 The classification of computer games provides an opportunity for the Australian Government to ensure that games containing loot boxes are not made available to children, and that parents and guardians are aware that games contain such mechanisms.

1.26 Gambling is a significant public health concern, and it has long been government policy that such activity should be restricted to those over the age of 18.

Further, activities which normalise gambling, particularly to children and young adults has been recognised as creating a pathway to other forms of gambling.

1.27 We accept the evidence that some loot boxes meet the established psychological criteria for gambling, and that virtual items contained in a number of loot boxes can be monetised (i.e. meeting the legal requirement that prizes are of monetary value). Where games meet both elements, there would appear to be the most serious risk to players of suffering gambling-related harms as loot boxes most closely resemble other forms of gambling.

1.28 As such, we are of the view that where games meet the psychological definition of gambling (as outlined in Chapter 3), and where virtual items can be monetised, the Classification Board should assess and rate these games as R18+.

1.29 We are also of the view that where games meet the psychological definition of gambling, but where virtual items cannot be monetised, the Classification Board should assess and rate these games as MA15+. It is clear that even without monetisation, virtual items have intrinsic value to players, and that loot boxes utilise a range of techniques seen in other forms of gambling. It is not appropriate that children are exposed to such elements without parental guidance.

1.30 In addition to appropriately classifying games, there is a clear need to inform consumers and the parents and guardians of children that games contain loot boxes. Appropriate labelling would increase consumer knowledge, and ensure that parents and guardians are aware that games contain material inappropriate for children.

Consumer protection framework

1.31 The Australian Greens acknowledge and commend the video game industry's stated commitment to ensuring the protection of children and young people. We also note the industry's efforts to implement parental controls and purchase restrictions on many platforms. It is clear that there is a willingness on the part of the Australian video game industry to engage with regulators to address community concerns and to develop appropriate responses.

1.32 We consider that a consumer protection framework for the video games industry, based on existing frameworks such as the Australian National Principles of Child Safe Organisations, would provide consumer confidence and clarity for the industry. Such a framework should include risk assessment processes to identify risks to children, reporting mechanisms, and policies and processes for developers and publishers to respond to safety concerns, and information to assist consumers and parents and guardians. This framework should be developed in collaboration with the video game industry and community organisations.

Recommendation 1

1.33 The Australian Greens recommend the Australian Government review the definition of 'gambling service' contained in the *Interactive Gambling Act 2001* to ensure that it continues to be fit for purpose, particularly with regard to micro-transactions for chance-based items.

Recommendation 2

1.34 The Australian Greens recommend that games which contain loot boxes that meet the psychological definition of gambling, and where virtual items can be monetised, be rated as R18+.

Recommendation 3

1.35 The Australian Greens recommend that games which contain loot boxes that meet the psychological definition of gambling but where virtual items cannot be monetised, be rated as MA15+.

Recommendation 4

1.36 The Australian Greens recommend that games containing loot boxes be required to clearly display 'Contains Simulated Gambling' in the video game content rating label.

Recommendation 5

1.37 The Australian Greens recommend that a consumer protection framework be developed in collaboration with the video game industry and community groups. This framework should include risk assessment processes to identify risks to children, reporting mechanisms for concerns, policies and processes for developers and publishers to respond to safety concerns, and information to assist consumers and parents and guardians.

Senator Jordon Steele-John
Chair
Senator for Western Australia

Appendix 1

Submissions, tabled documents and additional information

Submissions

1	Attorney-General and Minister for Justice (Qld)
2	Dr James Sauer and Dr Aaron Drummond
3	Interactive Games & Entertainment Association
4	The Institute of Games
5	Association of Heads of Independent Schools of Australia
6	Esports Games Association Australia Ltd
7	Connect Health and Community
8	Victorian Responsible Gambling Foundation
9	Royal Australian & New Zealand College of Psychiatrists
10	Australian Institute of Family Studies
11	Dr Marcus Carter, University of Sydney
12	Mr Alex Knoop
13	Name Withheld
14	Mr James Donnelly
15	Mr Samuel Drew
16	Mr Kieran Walsh
17	Mr Mitch van den Akker
18	Mr Nick Walker
19	Mr Glen Bruton
20	Mr Greg Tannahill
21	Name Withheld
22	Mr Julian Rzechowicz
23	Name Withheld
24	Mr David Wanden
25	Australian Council on Children and the Media

26	Australia Communications and Media Authority
27	Mr Richard Fairbairn
28	Mr Isaac Leeder
29	Mr Brendan Carmody
30	Ms Stephanie Gray
31	Mr Michael Rigby
32	Mr Jeremy Ray
33	NSW Government
34	Office of the eSafety Commissioner
35	Victorian Government
36	Esports Integrity Coalition
37	Mr Ervin Takah
38	Dr David Zendle
39	Mr James Nolan
40	Mr Joshua Simmons
41	Mr Alexander Williamson
42	Dr David Zendle, Dr Paul Cairns and Dr Cade McCall

Tabled documents

Victorian Responsible Gambling Foundation – 'Mobile EGMs Apps – The perfect substitute or the perfect storm?' (public hearing, Melbourne, 17 August 2018)

Dr James Sauer and Dr Aaron Drummond – Example Loot-Box Market Place Values (public hearing, Melbourne, 17 August 2018)

Additional information

Australian Communications and Media Authority (ACMA) – Clarification of a 'gambling service'

The Netherlands Gambling Authority – Regulatory approach to loot boxes

Appendix 2

Public hearings

Friday, 17 August 2018 – Melbourne

Dr James Sauer – Private capacity

Dr Andrew Drummond – Private capacity

Game Developers' Association of Australia

Mr Blake Mizzi, Board Member

Victorian Responsible Gambling Foundation

Mr Tony Phillips, Strategic Adviser, Knowledge and Policy

Mr Lindsay Shaw, Senior Policy and Knowledge Officer

Australian Council on Children and the Media – via teleconference

Professor Elizabeth Handsley, President

The Institute of Games

Mr Steven Dupon, Director

Interactive Games and Entertainment Association

Mr Ron Curry, Chief Executive Officer

Esports Association Australia Ltd

Mr Julian Hoskins, Co-lead of the Gambling and Integrity Panel

Classification Board

Ms Margaret Anderson, Director

Department of Communications and the Arts

Mr George Sotiropoulos, Assistant Secretary, Classification Branch

Australian Communications and Media Authority

Ms Jonquil Ritter, Executive Manager, Contents Safeguards Branch

Ms Jeanette Knowler, Manager, Interactive Gambling Taskforce

Monday, 17 September 2018 – Canberra

Dr David Zendle, Lecturer in Computer Science – Private capacity – via videoconference

Dr Paul Cairns, Reader in Human-Computer Interaction – Private capacity – via videoconference

