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Review of unlicensed online gambling in the UK

pwc

Strictly private and confidential

Important Notice

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1. Executive summary

1.1. Purpose and context of our work

The objective of this study is to provide an objective, evidence-based review of unlicensed online gambling activity in the UK, including consideration of the following:

- Number of unlicensed operators that UK consumers are exposed to through key marketing channels;
- Accessibility and ability for UK consumers to create an account with unlicensed sites identified;
- Awareness, usage of and spend with unlicensed operators;
- Customers' motivations for using unlicensed operators; and
- A comparison of these metrics to our previous work in 2018/19

It is specifically not the intention of this report to advocate for any policy or regulatory outcome, but rather to help inform discussions with an evidence-base drawn from an objective analysis.

The 'unlicensed market' is defined here as operators offering remote (mainly desktop and mobile) gambling products to UK consumers that do not hold a UK Gambling Commission licence for remote gambling – this is often referred to as the 'black market' but we will use the term 'unlicensed market' throughout. This report has focused on online slots, casino games and betting which account for 95% of UK online Gross Gambling Revenue ("GGR")[1]. We have not considered illegal land-based betting and gaming, nor UK licensed operators serving gamblers in foreign jurisdictions without a licence.

This study has been commissioned by the Betting and Gaming Council (BGC), the industry association for UK betting and gaming operators. This study builds on a previous study that we have conducted for GVC plc, now known as Entain plc, and William Hill plc in 2018/19, with those parties' permission. Throughout this report we will refer to this previous work as our "2018", "2019" or "2018/19" work dependent on when the data collection for each analysis was carried out[2]. We have used a consistent approach for both studies to ensure that the results are comparable – this is outlined in the next section. The views expressed in this study are those of PwC and not those of the Betting Gaming Council nor any of its members.

Due to the nature of online unlicensed gambling, there is limited other research in this field and our work relies predominantly on primary analysis and consumer surveys. We have discussed unlicensed gambling issues with BGC and its members and reviewed the 2017 European Commission report on illegal sports betting[3].

The background to this study is that BGC is seeking to better understand the threat that the unlicensed market poses to the UK gambling industry and wider society in the context of changes, and potential changes, in regulations that affect UK licensees only.

Recent changes to UK gambling regulation include:

- Increase in Remote Game Duty from 15% to 21% of GGR that came into effect on 1st April 2019[4]
- Ban on the use of credit cards for gambling, effective from April 2020[5]
- Actions to provide safeguards for high value customers (HVCs), also known as VIPs

There are also potential pending changes to UK gambling regulation including:

[1] **Note**: Online Gambling excluding Lottery; **Source**: Gambling Industry Statistics, UKGC (April 2019 to March 2020)
[2] **Note**: Consumer marketing analysis (including Google Search results) was conducted in October 2018; Online survey of online gamblers was conducted in two phases in October 2018 and April 2019
[3] **Source**: Preventing Criminal Risks linked to the Sports Betting Market, European Commission (2017)
[4] **Source**: Excise Notice 455a: Remote Gaming Duty, UK government (April 2019)
[5] **Source**: Gambling on credit cards to be banned from April 2020, UKGC (Jan. 2020)

- UKGC's "Remote customer interaction" consultation launched in November 2020[6] that proposes "stronger requirements" for remote gambling operators, including that operators must conduct defined affordability assessments at thresholds set by UKGC[7]
- DCMS's (Department for Digital, Culture, Media and Sports) recently announced review of the 2005 Gambling Act[8]. This review is expected to cover the entire Gambling Act and would be the first full review since 2005

In 2018/2019, we found evidence to suggest that the UK unlicensed online gambling market makes up a small but meaningful segment of the total market, with 47% of online gamblers aware of and 2.2% of online gamblers using unlicensed operators. This study sets out to evaluate any key changes in these dynamics in the last 1-2 years.

1.2. Approach

Our approach for completing this study has been:

(i) Identifying a list of unlicensed operators by reviewing key marketing channels (including Google search results, mobile apps, affiliates, and sports sponsors) and top gambling websites by traffic;

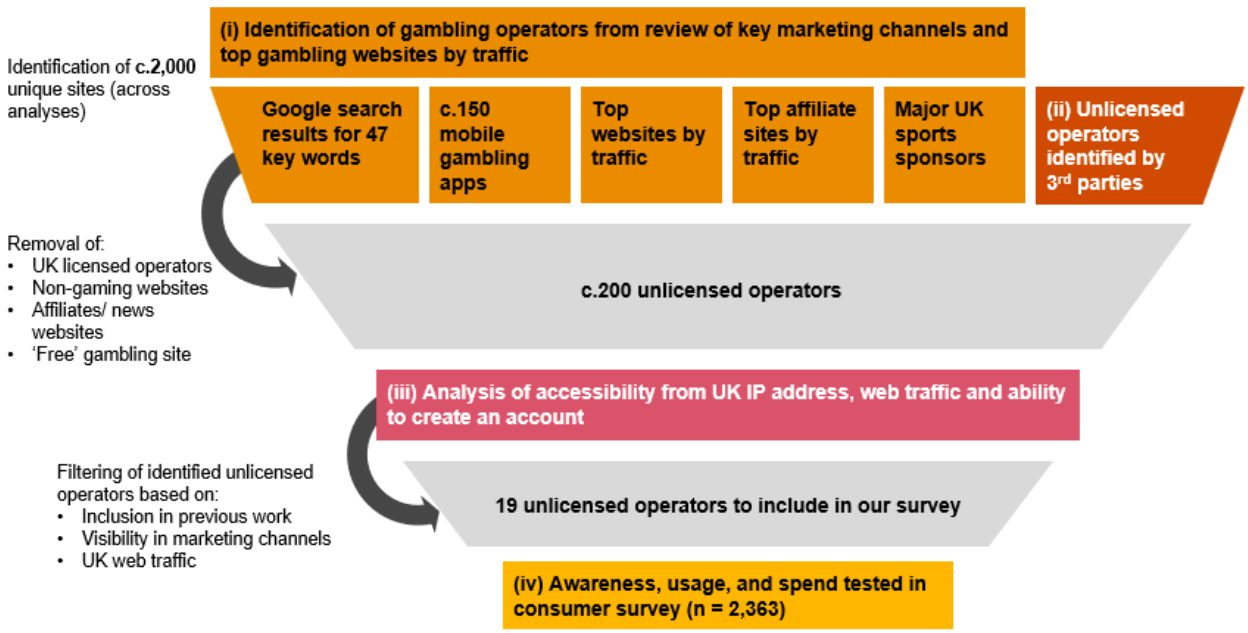
(ii) Considering other unlicensed operators identified by BGC and its members through their own market experience;

(iii) Assessing accessibility, web traffic and ability to create an account with unlicensed operators identified; and

(iv) Conducting an online consumer survey with a nationally representative sample of 2,363 active UK online gamblers to test awareness, usage, and spend with 19 key unlicensed brands and the motivations for using unlicensed providers

An overview of this approach is outlined in Figure 1.1 below.

Figure 1.1 – Overview of methodology for assessment of UK unlicensed online gambling



Our fieldwork was completed during November and December 2020. While the data presented in our report attempts to be the latest at the time of writing, we cannot guarantee the completeness of external data at the time of publication.

[6] **Source**: Remote customer interaction - Consultation and Call for Evidence, UKGC (Nov. 2020)
[7] **Note**: The nature of these checks, and threshold levels have not yet been decided
[8] **Source**: "UK Launches Gambling Act Review", Gambling Compliance (Dec. 2020)

In addition, we have also leveraged our previous work on UK unlicensed online gambling conducted in 2018/19, including:

- Google search result, other marketing channels and web traffic analysis (conducted in October 2018)
- Survey of online gamblers conducted in October 2018 (n = 1,010) and April 2019 (n = 2,453)[9]
- Review of unlicensed market gambling, using 3rd party sources, in seven other licensed European markets (conducted in April 2019)

To ensure the maximum comparability of results we have used a consistent approach across our 2018/19 and 2020 analyses.

1.3. Key findings and conclusions

Overall, our analyses have found that usage of and spend with unlicensed online gambling operators in the UK has grown over the last 1-2 years. This has occurred despite awareness of unlicensed operators remaining broadly stable and consumers' exposure to unlicensed operators within Google search results declining.

The key findings from this study are summarised in Figure 1.2 and discussed in further detail below. We believe these estimates to be conservative due to the reasons highlighted on subsequent pages.

Scale of unlicensed online gambling

Figure 1.2 – Summary of our key findings

Source: PwC analysis

	Measure of unlicensed online gambling	Oct 2018 / March 2019	Nov 2020	Estimated scale of unlicensed online gambling
A	**Unlicensed operators in Google search results** (PwC analysis, % of unique sites)	12%	5%	Reduction in unique unlicensed operator sites in Google search results (from 47 frequently used key words) from 229 to 98
B	**Unlicensed operator awareness** (survey, % of respondents)	47%	44%	Number of UK online gamblers who are aware of at least one unlicensed operator has remained the same at c.4.5m
C	**Unlicensed operator usage** (survey, % of respondents)	2.2%	4.5%	Number of UK online gamblers that have used an unlicensed operator in the last 12 months increased from c.210,000 to c.460,000
D	**Unlicensed operator spend** (survey, % of respondents' total spend)	1.2%	2.3%	Stakes with unlicensed operators in last 12 months increased from c.£1.4bn to c.£2.8bn

A. Consumers are still exposed to a significant number of unlicensed operators through search results for key gambling terms on Google, although the number of operators identified has fallen markedly since 2018:

- We identified around 5% (2018: 12%) of Google search results on the first 10 pages as unlicensed operators, corresponding to 98 unique sites (2018: 229)[10]. The greatest decline in the number of unlicensed operators was seen on the first two pages of Google search results (which account for c.90% of traffic)

[9] **Note:** We expanded the survey sample in April 2019 in order to increase the reliability of the results found in October 2018 and confirm their validity
[10] **Note:** Based on review of 9,313 Google search results from 47 common gambling key words

- Changes in Google's algorithm, which have prioritised higher traffic sites in search results, appear to be the primary driver of this change. The overall reduction in the number of unlicensed sites was primarily driven by a reduction in the number of sites that appeared within search results
- We were only able to access (using a UK IP address) and create accounts (using UK details) with 14 sites of the 98 unlicensed sites
- In carrying out our analysis we have assumed that consumers using unlicensed operators are 'unsuspecting' or casual/ leisure gamblers. We, therefore, did not attempt to specifically search for unlicensed operator websites on Google. We note that gamblers may specifically search for unlicensed operators, or use VPNs, international contact details or alternative payment methods (e.g. cryptocurrencies) and hence be able to access more sites than this

- Consumers are exposed to few unlicensed operators via other marketing channels including major affiliate sites, major sports team/ venue sponsors, and mobile app stores (although we have not reviewed these channels exhaustively). This is consistent with the findings of our 2018 analysis

B. Consumers' prompted awareness of unlicensed operators has remained broadly stable since our previous analysis in 2018/19:

- Almost half (c.44%) of UK online gamblers were aware of at least one unlicensed operator included in our survey. This is a slight decline versus our findings in 2018/19 (47%), albeit partially offset by growth in the total number of consumers participating in online gambling
  - However, when looking at the awareness of the eleven brands included in both surveys we see an increase both at an aggregate level (35% of consumers were aware of one or more of the eleven brands in 2018/19 vs. 37% in 2020) and at a brand level (awareness for all but one of the eleven brands remained the same or increased[11])
- This suggests that awareness has not been significantly impacted by the decreased exposure of unlicensed operators on key marketing channels such as Google when searching with generic popular gambling search terms (although further growth in awareness may have been prevented)

C. The proportion of online gamblers saying they use unlicensed operators is sizable and has grown since our previous study in 2018/19:

- Based on our survey, the proportion of UK online gamblers using an unlicensed operator has increased from 2.2% to 4.5% in the last 1-2 years. This equates to an increase from c.210,000 players in 2018/19 to c.460,000 in 2020
- This is supported by web traffic data to the eleven unlicensed operators included in both our 2018/19 and 2020 surveys which increased by c.85% from Oct. 2018 to Nov. 2020[12]
  - However, total web visits to all unlicensed sites that we have identified has remained broadly stable at c.27m annual visits, a slight decline in the share of total gambling web visits from 2.5% in 2018 to 2.4% in 2020. This result should be read with caution as it is primarily driven by a decline in the number of unlicensed operators that unsuspecting users are exposed to within Google search results
  - In addition to this, gamblers (especially more motivated and / or high stakes players) may be accessing unlicensed operators using VPNs, which we are not able to assess

D. A sizable and growing share of stakes is placed with unlicensed sites, growing over the last 1-2 years broadly in-line with usage (i.e. doubling). Those that gamble with unlicensed operators still almost always gamble with licensed operators as well:

[11] **Note**: Awareness of one brand declined from 5% to 4%
[12] **Note:** Considering all 19 sites included in our 2018/19 traffic increased by c.15% as a number of these sites no longer exist

- Our survey found that share of online stakes with unlicensed operators had grown from 1.2% in 2018/19 to 2.3%. This corresponds to a doubling of stakes with unlicensed online operators from £1.4bn to £2.8bn[13]
- Unlicensed online operators were rated strongly by survey respondents which may explain some of the observed increase in unlicensed usage and spend
  - Odds / return to player and ease / speed of withdrawal were the 2nd and 3rd most important criteria for selecting an online operator
  - Users of unlicensed online operators rated their performance ahead of well-known licensed brands[14] across key selection criteria, particularly the ease/ speed of setting up an account
- Online gamblers appear to be using unlicensed operators to bet more money or access niche games and bets
  - In our survey, ability to bet more money and offering games / bets that other operators do not offer were significantly more important criteria for selecting an online operator for gamblers who had used unlicensed operators. This was consistent across our 2018/19 and 2020 survey
- We asked online gamblers in our survey about whether they would look for new operators in response to a range of potential restrictions in operators' offerings, with a significant proportion of respondents stating that they would do so:
  - Over 50% of online gamblers said they would consider looking for new operators if odds or pay-out were to decrease
  - Over 30% of online gamblers said they would consider looking for new operators if they were asked to provide additional evidence on affordability or source of funds, or if fewer products or games were available

Interpretation of our results

To ensure the comparability of our 2018/19 and 2020 results, we have used a consistent approach. In summary, we have:

- Used the same methodology to complete our review of key marketing channels, including using the same 47 frequently used generic gambling search terms
- Used the same survey panel provider, sampling and screening methodology and questions to assess awareness, usage and spend with 19 unlicensed operators from our consumer survey. We have used a similar sized sample of respondents
- Where we have made changes to the methodology, we have also completed 'like for like' comparisons of our results in order to verify the consistency of our results, for example:
  - We adjusted 8 out of the 19 brands included in our survey between 2018/19 and 2020 and we have verified that usage and spend has increased for all eleven brands included in both surveys which supports our overall result[15]
- We report the observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. As such, we have also considered the 95% confidence interval for our results to confirm their validity

[13] **Note:** Estimated unlicensed stakes is based on unlicensed operators accounting for 2.3% of stakes from our consumer survey and licensed online UK gambling stakes from UKGC
[14] **Note**: Users of unlicensed operators were asked to compare performance vs. the largest UK licensed operators including William Hill, Ladbrokes, Paddy Power, Betfair, SkyBet, and Bet365
[15] **Note**: The reason these eight brands were adjusted for our 2020 work was that since our 2018/19 work they had either, gained a UK licence, ceased trading, or stopped accepting bets from UK consumers

Whilst our results are comparable between 2018/19 and 2020, we believe there are reasons to interpret our unlicensed usage and spend estimates as conservative and that the 'true' figure may be higher:

- Respondents were only asked about their usage and spend with 19 unlicensed online operators, and there will be an additional long tail of small unlicensed sites targeting UK consumers
- Gamblers may not remember, or may choose not to reveal, all operators they have used (in particular, if they are aware that they are unlicensed)
- Gamblers may not accurately report their overall gambling spend, or their spend with unlicensed operators (either accidentally or deliberately)
- By triangulating to reported online gambling market size from the Gambling Commission, we believe we have not captured a representative sample of very high spending gamblers in our survey (an inherent problem when surveying gamblers) who are more likely to use unlicensed operators as evidenced by the distribution of unlicensed usage we have observed within our sample of higher and lower staking players
- Our survey found that unlicensed operators accounted for 2.5% of high staking gamblers' stakes (vs. 0.6% for low staking players) and 7.8% of high staking gamblers had used one or more unlicensed operators in our survey (vs. 1.7% for low staking players)[16]

Conclusion

In this review, we have found evidence for the existence and growth of unlicensed online gambling in the UK.

Whilst unlicensed operator websites appear to be less visible to unsuspecting UK consumers now than they were in 2018, there is evidence of growing usage and spend with unlicensed operators.

- Our analyses have shown that usage of and spend with unlicensed online gambling operators has grown significantly in the last 1-2 years (albeit remains relatively low by international standards) by c.£1.4bn of stakes and 260,000 consumers
- This has occurred even though awareness of unlicensed online operators has remained broadly stable, consumer exposure within Google search results has declined and UKGC continues to take enforcement action against unlicensed operators

As unlicensed gambling poses risks to player protection, sporting integrity, anti-money laundering, and tax collection, the size and growth of this market should be considered a meaningful issue for the industry.

[16] **Note:** Low spend: less than £25 total spend per month, Medium spend: £25-£75 total spend per month, High spend: more than £75 spend per month

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Supporting Information

2. Purpose of this study

2.1. Objective of this study

The objective of this study is to provide an objective, evidence-based view of unlicensed online gambling in the UK, including considering the following:

- Number of unlicensed operators that UK consumers are exposed to through key marketing channels;
- Accessibility and ability for UK consumers to create an account with unlicensed sites identified;
- Awareness and usage of, and spend with, unlicensed operators;
- Customers' motivations for using unlicensed operators; and
- A comparison of these metrics to our previous results in 2018/19

2.2. Scope and approach

The scope of this study is unlicensed online gambling in the UK. Specifically, the scope of our work has focused on:

- Bets/ wagers made by UK persons whilst located within the UK
- Online slots, casino games and online betting – these account for 95% of online gambling GGR[17]
- Analysis conducted from the guise of an 'unsuspecting' user (i.e. not a punter actively looking for unlicensed operators or engaging in more sophisticated practices, e.g. using a VPN)

We have not considered in this report:

- Unlicensed lottery play
- Unlicensed land-based gambling
- UK licensed operators serving gamblers in foreign jurisdictions without a licence

We have defined and used the term 'unlicensed operators' as those that do not hold a UKGC licence for remote gambling. We have:

- Assessed licensing status based on the list of licensed operators and website domains published on the UKGC webpage[18]
- Not conducted an audit of the licensing status of individual operators

We note that the UK Gambling Commission's jurisdiction covers Great Britain (England, Scotland, and Wales) but not Northern Ireland. Gambling (other than the National Lottery) in Northern Ireland is regulated under a 1985 order that does not specifically provide for the licensing of online gambling activities[19]. The order does not prevent a Northern Ireland resident from taking part in online gambling as a player. Given the lack of formal licensing for online gambling in Northern Ireland, we have assessed the licensing status of operators in line with the UK Gambling Commission's list of licensed operators.

Our approach for completing this study, as outlined in detail in the methodology chapter of this report, has been:

- Identifying a list of unlicensed operators by reviewing key marketing channels (including Google search results, mobile apps, affiliates, and sports sponsors) and top gambling websites by traffic

[17] **Note**: Online Gambling excluding Lottery; **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC
[18] **Source**: GC Public Register (Sector – Remote, Status – Granted), UKGC (Nov. 2020)
[19] **Source**: "Betting, Gaming, Lotteries and Amusements" (Legislation), NI Department for Communities

- Considering other unlicensed operators identified by BGC and its members through their own market experience
- Assessing accessibility, web traffic and ability to create an account with unlicensed operators identified (note: we have not attempted to deposit or place bets with unlicensed operators)
- Conducting an online consumer survey with a nationally representative sample of 2,363 active UK online gamblers to test awareness, usage, and spend with 19 key unlicensed brands and the motivations for using unlicensed providers

Our fieldwork was completed during November and December 2020.

In addition, we have also leveraged our previous work on UK unlicensed online gambling conducted in 2018/19, including:

- Google search results, other marketing channels and web traffic analysis (conducted in October 2018)
- Survey of online gamblers conducted in October 2018 (n = 1,010) and April 2019 (n = 2,453)[20]
- Review of unlicensed gambling, using 3rd party sources, in seven other licensed European markets (conducted in April 2018)

To ensure the maximum comparability of results we have used a consistent approach for both reviews. Any variations in our approach are outlined in the methodology section of this report.

2.3. Purpose of this study

This study has been commission by the Betting and Gaming Council (BGC), the industry association for UK betting and gaming operators. This study builds on the findings of a previous study commissioned by GVC plc, now known as Entain plc, and William Hill plc in 2018/19, with those parties' permission.

As outlined above, the objective of this study is to provide an independent and objective review of the scale of unlicensed online gambling in the UK. It is specifically not the intention of this report to advocate for any policy or regulatory outcome, but rather to help inform discussions with an evidence-base drawn from an objective analysis.

The views expressed in this study are those of PwC and not those of the Betting Gaming Council nor any of its members.

The background to this study is that BGC is seeking to better understand the threat that the unlicensed market poses to the UK gambling industry and wider society in the context of changes and potential other changes, in regulations that affect UK licensees only[21,22].

[20] **Note:** We expanded the survey sample in April 2019 in order to increase the reliability of the results found in October 2018 and confirm their validity
[21] **Note**: For detail on regulatory changes see UK market context (Chapter 3)
[22] **Note**: The purpose of our 2018/19 work was the same as this work

3. UK market context

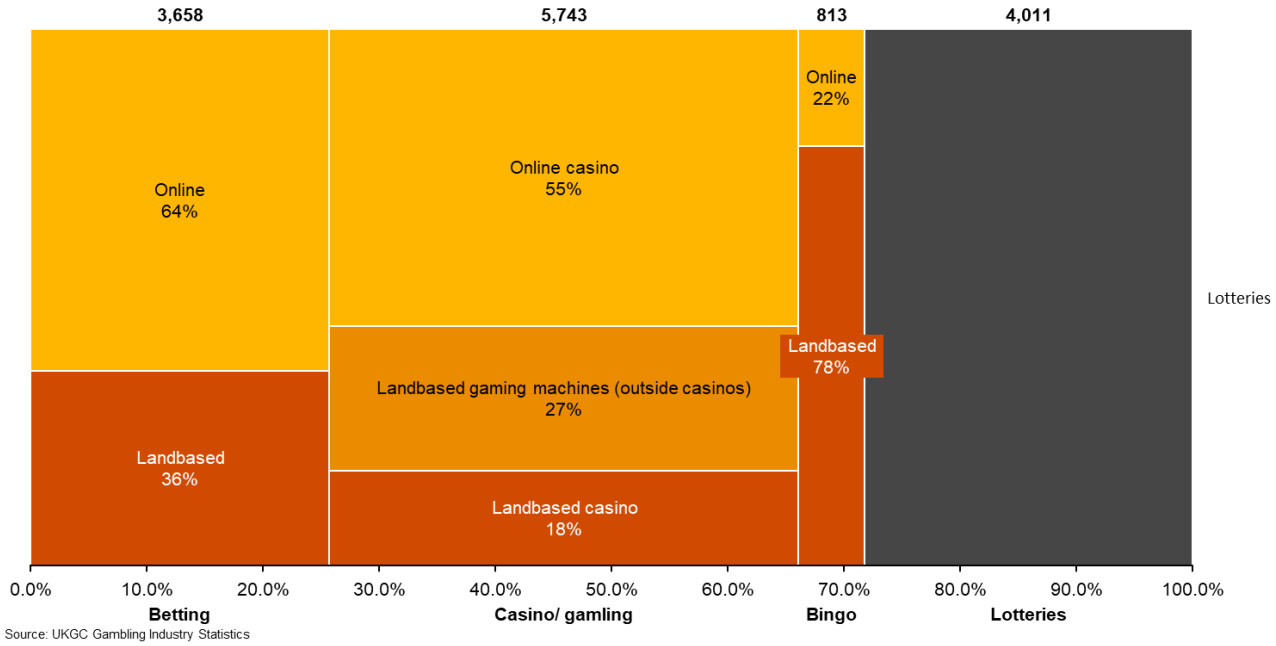
In this chapter, we present an overview of the UK online gambling market and licensing requirements and outline the background to unlicensed online gambling in the UK.

3.1. Overview of UK online gambling

UK online gambling market

Remote (licensed) gambling, excluding lotteries, is estimated to be worth £5.7bn in Gross Gambling Revenue (GGR) terms, accounting for c.40% of the overall UK gambling GGR – see Figure 3.1.

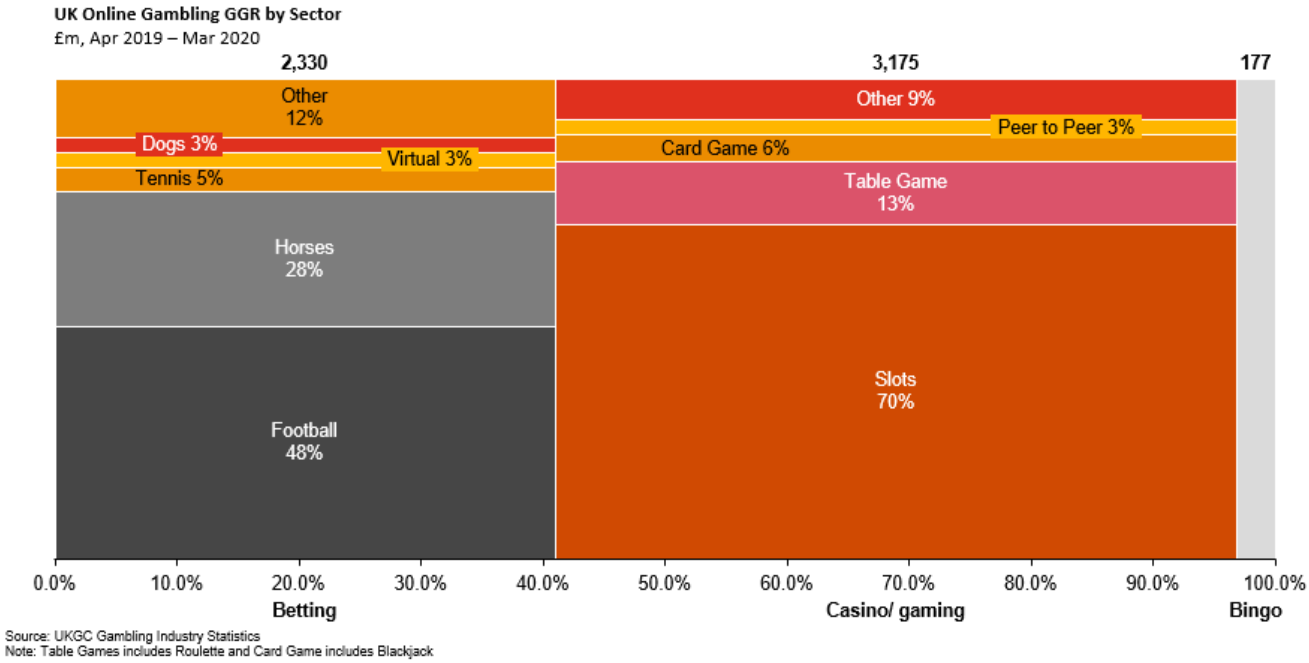
Figure 3.1 – UK Gambling Industry GGR by market segment **(£m, Apr 2019 – Mar 2020)**[23]



Betting and casino[24], which are the focus of our study, account for 97% of online gambling GGR, with bingo making up the remainder. Betting accounts for 41% of online GGR and casino for 56% of online GGR. Football, horses, tennis, virtual and dogs account for 88% of online betting GGR. Slots account for 70% of online casino / gaming GGR. See Figure 3.2 below.

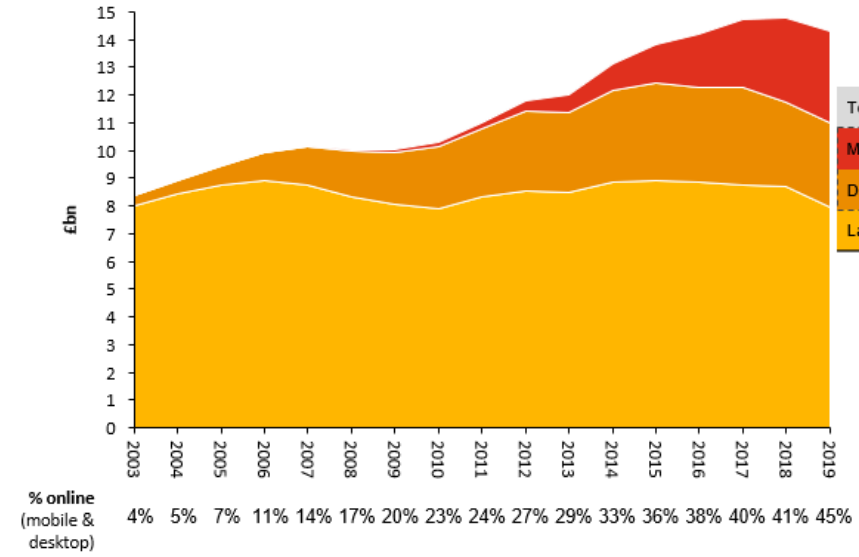
[23] **Note:** Remote/ online gaming includes 2014 Act Regulated GB Customers only; **Source:** Industry Statistics (Apr. 2019 to Mar. 2020), UK Gambling Commission (Nov. 2020)
[24] **Note**: Including poker

Figure 3.2 – UK Online Gambling GGR by sector **(£m, Apr 2019 – Mar 2020)**[25]



UK online gambling GGR has grown rapidly at c.19% p.a.[26] since 2003. In contrast, land-based gambling has grown slowly at c.1% p.a. between 2003 and 2018 before declining by 9% 2018-19 primarily due to the introduction of a £2 maximum stake on category B2 gaming machines in licensed betting shops, or so-called Fixed Odds Betting Terminals (FOBTs), in 2019. Consequently, online penetration has increased from 4% in 2003 to 45% in 2019[27]. Furthermore, mobile gambling has been a significant growth driver for remote gambling, growing at 47% p.a. since 2008[28].

Figure 3.3 – UK Gambling Industry GGR by channel **(£m, 2003–19)**[29]

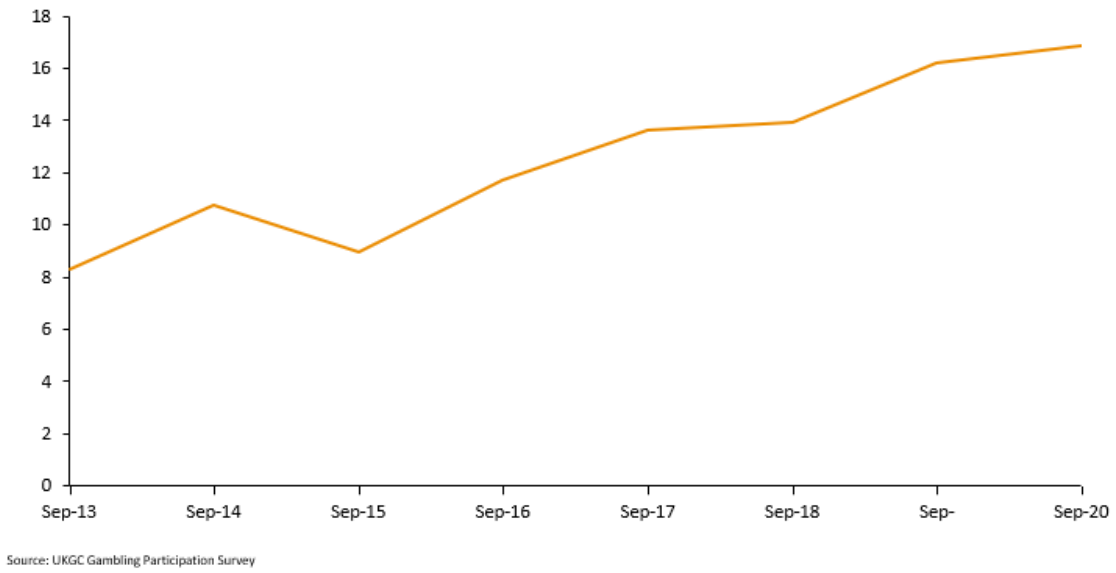


	CAGR			
	03-19	03-08	08-18	18-19
Total Online	19%	35%	14%	4%
Mobile gambling	n/a	n/a	51%	10%
Desktop Gambling	14%	34%	7%	-1%
Landbased Gambling	0%	1%	0%	-9%

[25] **Source:** Industry Statistics (Apr. 2019 to Mar. 2020), UKGC
[26] **Note:** CAGR 2003-2019; **Source:** H2 Gambling Capital (2019)
[27] **Note:** Online penetration stated here includes lotteries; **Source:** H2 Gambling Capital (2019)
[28] **Note:** CAGR 2008-2019. **Source:** H2 Gambling Capital (2019)
[29] **Source:** H2 Gambling Capital (2019)

Growth in online GGR has been supported by growth in online gambling participation which has more than doubled since 2013, increasing from 8.3% in 2013 to 16.9% of the adult population in 2020 – see Figure 3.4[30].

Figure 3.4 – UK Online gambling participation (excluding those only playing National Lottery draw products) in the past 4 weeks **(% of respondents, Year to September 2013–20)**[31]



During 2020, COVID-19 has created significant social and economic disruption across countries, including the UK. Land-based gambling segments have been particularly impacted by lockdowns, store closures and reduced footfall and betting has been disrupted by live sport cancellations. Meanwhile online gambling has been boosted by new gamblers and land-based gamblers substituting to online play[32].

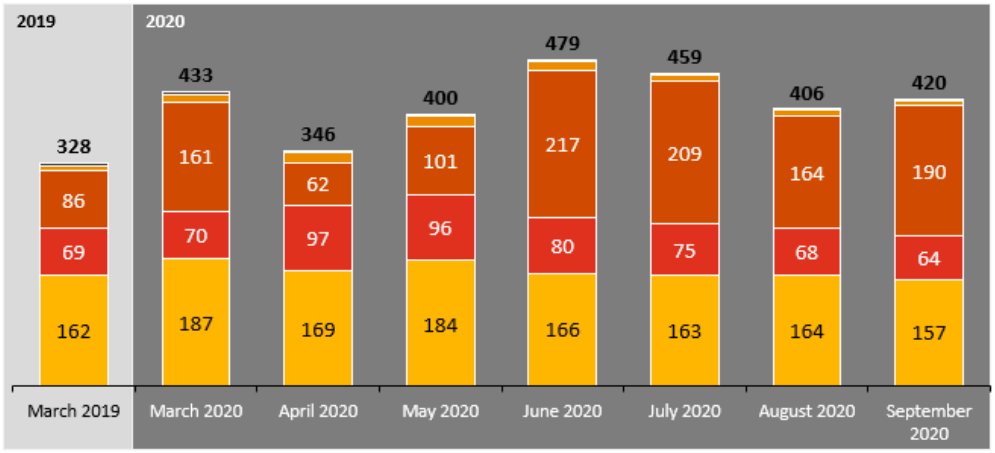
As Figure 3.5 shows below, in the early stage of the pandemic online gaming was boosted. However, online gaming has since returned to broadly pre-pandemic levels as land-based gaming locations were permitted to reopen. Conversely, online betting GGR was significantly impacted in April and May due to sports cancellation but has recovered strongly with the resumption of live sporting events. There is significant uncertainty over the future evolution of the pandemic and associated impact on the UK gambling market.

[30] **Note:** Proportion of respondents participating in online gambling in the past 4 weeks (Year to September 2013-20), excluding those only playing National Lottery draw products; **Source:** Survey Data on Gambling Participation, UKGC

[31] **Note:** Proportion of respondents participating in online gambling in the past 4 weeks (Year to September 2013-20), excluding those only playing National Lottery draw products; **Source:** Survey Data on Gambling Participation, UKGC

[32] **Source**: How Covid-19 has impacted land-based and online operators, EGR (May 2020)

Figure 3.5– UK online GGR by segment **(£m, March 2019 – July 2020)**[33]



% change vs March 2019

	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020
Online overall	31.8%	5.4%	21.7%	45.9%	39.9%	23.7%	28.0%
All betting	86.1%	(15.2%)	27.2%	150.0%	138.5%	87.6%	113.8%
All gaming	11.0%	15.1%	21.3%	6.7%	2.9%	0.4%	(4.0%)

By July 2020, online gaming (including slots) appears to have returned to broadly inline with 2019

Source: UK Gambling Commission

UK online gambling licensing and taxation

Since December 2014, the UKGC has required that all operators, regardless of where they are based, need a licence if they are providing facilities for gambling to consumers in Great Britain online (or through any other means of remote communication) or if any remote gambling equipment is based in Great Britain[34].

Online operators with a UK licence are required to meet conditions set out the UK Gambling Commission's LCCP (Licence conditions and codes of practice). Key requirements (non-exhaustive) of licensed operators include:

- **Problem gambling:** operators interacting with customers must provide the option of self-exclusion for those who would like to take steps to stop gambling and must also take steps to identify those at risk of being problem gamblers and prevent this. Further, operators must make an annual financial contribution to one or more UKGC-approved organisation(s) that support research into the prevention and treatment of problem gambling
- **Responsible gambling:** licensees must make information readily available to their customers on how to gamble responsibly and how to access help regarding problem gambling
- **Customer identity and underage gambling:** licensees must have, and put into effect, policies and procedures designed to prevent underage gambling, including checking the age of customers. Previously, age verification had to be satisfactorily completed within 72 hours of the customer applying to register[35]. However, since 2019 the requirements have been updated and operators are mandated to verify a customer's age, name, and address before allowing them to play gambling games online, including free-to-play games
- **Anti-money laundering:** operators are required to be compliant with Anti-Money Laundering and Counter Terrorism Financing requirements, including the verification of the source of funds
- **Suspicious betting:** if operators accept sports bets and encounter information that they know (or believe) would lead UK Gambling Commission to consider making an order to void a bet they must hand this information over to UK Gambling Commission. They must similarly pass on any information that they believe may be a breach of a rule on betting applied by a sports governing body

[33] **Note**: Data from UK Gambling Commission based on data from the biggest operators which cover approximately 80% of the online market. Virtual eSports betting included in virtual betting; **Source:** UKGC (Nov. 2020)
[34] **Source**: Annual Report & Accounts, UK Gambling Commission (Jul. 2015)
[35] **Note**: Failure to do so would result in the freezing of the account

- **Activities in other jurisdictions:** B2C businesses must report to the UK Gambling Commission any market where they generate more than 3% or more of their total revenue from players (or 10% of revenue where revenue is less than £5m p.a.). The licensee must also report why they think that the provision of gambling facilities is not illegal. Furthermore, licensees must also declare any additional markets that they are actively targeting

Since 1st December 2014, remote gaming duty (applying to online games of chance) and general betting duty (applying to betting including online) has been levied as a point of consumption tax payable on all bets made by UK persons irrespective of where the online operator is located. In particular this change impacted operators who moved their operations offshore to territories such as Gibraltar and Malta and were, as such, previously exempt from paying betting duties in the UK.

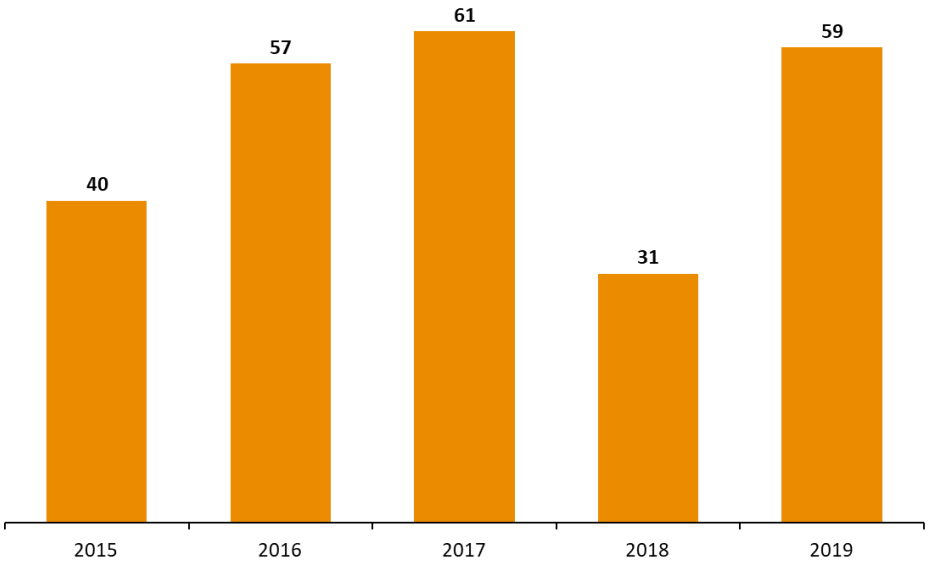
Remote gaming duty and general betting duty were historically levied at a rate of 15% of GGR[36]. The UK government announced in the Autumn Budget 2018 that remote gaming duty would increase to 21% of GGR which came into effect from the 1st April 2019. The increase in tax rate was positioned by the UK government to offset any negative impact on tax receipts due to the introduction of a £2 maximum stake on category B2 gaming machines, or so-called Fixed Odds Betting Terminals (FOBTs) which also came into effect on 1st April 2019. The rate of general betting duty has remained unchanged.

Enforcement of licensing conditions by UK Gambling Commission

Enforcement is one of the core functions of the UK Gambling Commission and covers enforcement of key conditions for licensed operators as well targeting illegal gambling and unlicensed remote gambling operators.

There are has been some variation in the number of unlicensed remote operators that UK Gambling Commission has taken enforcement action against over the last 5 years as shown in Figure 3.6 below.

Figure 3.6 – Unlicensed remote operators subject to enforcement action by UKGC **(2015-19)**



Source: UKGC Enforcement Report 2017-18, 2018-19, 2019-20

The UK Gambling Commission utilises disruption technologies where remote unlicensed operators do not comply with cease and desist notices. In particular, UK Gambling Commission utilises relationships with payment providers, social media sites, and web hosts who can exert pressure on unlicensed operators serving UK customers. This was outlined in the UKGC Enforcement report below:

> Our methods have included utilising our relationships with web hosting companies to bring down websites, payment providers to remove payment services and social media sites to prevent websites appearing on search engines or being hosted. All of these methods ensure that we continue to react proportionately and appropriately to the illegal provision of gambling facilities and prevent unlicensed operators interacting with GB consumers – **UK Gambling Commission (November 2020)**

[36] **Source**: Annual Report & Accounts, UKGC

The UKGC also engages with international regulators to take further action against remote unlicensed operators; in 2019-20 there were 15 recorded interactions with international regulators[37].

In addition to preventing unlicensed operators serving UK consumers, the UKGC also enforces conditions of UK licensed operators including AML, customer interaction (including identification of customers), ability to self-exclude, unfair terms and practices, and marketing and advertising. During 2019-20, the UKGC has taken enforcement action against operators in all these areas. During this period, enforcement action was taken against two of the seven largest online gambling groups in the UK[38].

Recent regulatory changes (non-exhaustive)

Key recent changes to UK gambling regulation include:

- Increase in Remote Game Duty from 15% to 21% of GGR that came into effect on 1st April 2019[39]
- Ban on the use of credit cards for gambling, effective from April 2020[40]
- Actions to provide safeguards for high value customers (HVCs), also known as VIPs

The UKGC published an industry-wide code of conduct on September 2020[41] aimed at removing irresponsible incentivisation of VIPs. The conduct specifies that following actions must be considered:

- Establish that spending is affordable and sustainable as part of the customer's leisure spend
- Assess whether there is evidence of gambling-related harm, or heightened risk linked to vulnerability
- Ensure the licensee has up-to-date evidence relating to identity, occupation, and source of funds
- Continue to verify the information provided to them and conduct ongoing gambling harm checks on each individual to spot any signs of harm
- Prohibit consumers aged under 25 from being recruited to HVC programs[42]

In the last year (when the issue of VIP schemes was raised) the number of customers which were signed up for VIP schemes has reduced by 70%[43]. The UK Gambling Commission Chief Executive stated:

> "We have introduced these new rules to stamp out malpractice in the management of 'VIP' customers and to make gambling safer. Our enforcement work has identified too many cases of misconduct in the management of VIP schemes and this is the last chance for operators to show they can operate such schemes appropriately. Operators can be in no doubt about our expectations. If significant improvements are not made, we will have no choice but to take further action and ban such schemes – **Neil McArthur, Chief Executive, UK Gambling Commission (September 2020)**

Potential regulatory changes (non-exhaustive)

In addition to these recent regulatory changes, the UKGC launched a consultation on "Remote customer interaction" in November 2020[44]. The commission proposes "stronger requirements" for remote gambling operators, including that operators must conduct defined affordability assessments at thresholds set by UKGC[45].

In addition, in December 2020, DCMS (Department for Digital, Culture, Media and Sports) launched a review of the 2005 Gambling Act[46]. This review is expected to cover the entire Gambling Act and would be the first full

[37] **Source**: Compliance and Enforcement Report, UKGC (Nov. 2020)
[38] **Note**: The seven largest interactive gambling groups in the UK had an estimated market share of 73% in 2019; **Source**: H2 Gambling Capital (2019)
[39] **Source**: Excise Notice 455a: Remote Gaming Duty, UK Government (April 2019)
[40] **Source**: Gambling on credit cards to be banned from April 2020, UKGC (Jan. 2020)
[41] **Source**: High Value Customers: Industry Guidance, UKGC (Sep. 2020)
[42] **Source**: "Gambling Commission and Industry Collaboration Makes Progress on Safer Gambling", UKGC (Apr. 2020)
[43] **Source**: "Gambling Commission New Rules to Stamp Out Irresponsible 'VIP Customer' Practices", UKGC (Sept. 2020)
[44] **Source**: Remote customer interaction - Consultation and Call for Evidence, UKGC (Nov. 2020)
[45] **Note**: The nature of these checks, and threshold levels have not yet been decided
[46] **Source**: "UK Launches Gambling Act Review", Gambling Compliance (Dec. 2020)

review since 2005. It is expected that this review will consider potential limitations on play (e.g. speed of play of various games)[47].

3.2. UK unlicensed online gambling market

We use the term 'unlicensed operators' as those that do not hold a UKGC licence for remote gambling.

In addition to being a violation of requirements set by UKGC that operators serving UK persons require a UK licence, there are a number of issues associated with UK persons using unlicensed operators:

- **Loss of tax revenue:** unlicensed operators accepting bets and wagers from UK customers do not pay tax in the UK, leading to a loss in tax revenue for the UK government
- **Limited player protections:** unlicensed operators typically do not have as high player protections on their sites as UK licensed operators, including the option to self-exclude from gambling and links to relevant responsible gambling sites (e.g. Gamble Aware, GamCare, and GamStop), if any protection at all
- **Less rigorous customer acceptance and AML checks:** unlicensed operators are less likely to ask for customer verification which may enable underage gamblers or self-excluded players to gamble. In addition, unlicensed operators are likely to have less rigorous, or no, Anti-Money Laundering policies to verify the source of funds used for gambling
- **Unfair terms and practices and poor product quality:** UK Gambling Commission has requirements that protect players against unfair terms including restrictions on gameplay and vague terms, whilst the requirements on unlicensed operators are likely to be less stringent. Similarly, unlicensed operators' offerings are not held to the same technical standards. Lower quality games could be more prone to technical failures resulting in undue financial losses to UK consumers

Other estimates of the UK unlicensed market

There has been limited work on unlicensed online gambling in the UK. We have conducted a comprehensive review to identify any other estimates of the unlicensed market for online gambling including searches of Google, press releases, Gambling Compliance, and research published by UKGC. To the best of our knowledge, the only publicly available study that attempts to estimate unlicensed market gambling in the UK is the European Commission study outlined below[48].

Further, although the European Commission report[48] has estimated the size of the UK unlicensed market, it is under different parameters to our estimate (as outlined below). Despite this, Figure 3.7 below shows that our estimate of the share of unlicensed market spend broadly reconciles with the European Commission estimate.

Figure 3.7 – Estimates of UK unlicensed market spend

Source: PwC analysis, European Commission

Source	Metric	Date	Estimate
European Commission	Sport betting only; including land, excluding horse racing	Jun. 2017	c.2%
PwC	Unlicensed online gaming and betting[49]	Oct 2018 / Mar 2019	1.2%
PwC	Unlicensed online gaming and betting[49]	Dec 2020	2.3%

[47] **Source**: "Reformer's Shopping List': Gambling Laws Review Starts Next Week", The Guardian (Dec. 2020)
[48] **Source**: "Preventing Criminal Risks Linked to The Sports Betting Market", European Commission (Jun. 2017)
[49] **Note**: Excluding players that only play one of: lottery, poker, and/or bingo

We believe that there are reasons to interpret our estimate of unlicensed spend as conservative:

- We only asked respondents about usage and spend with 19 unlicensed operators in our survey;
- Gamblers may not remember, or may choose not to reveal, all operators that they have used;
- Gamblers may not accurately report their total monthly gambling spend or unlicensed operators' share of gambling spend, either accidentally or deliberately; and
- By triangulating to reported online gambling market size from the Gambling Commission, it appears that our survey has not sufficiently captured very high stakes gamblers who typically account for a significant proportion of gambling spend and are more likely to look to use unlicensed operators

The methodology used for the UK estimate by the European Commission is relatively high level. Being scored 'level 2 / level 3' by the European Commission, this indicates that the estimate is based on expert interviews and macro-economic data. We note the following limitations of the study:

- Estimates are based on 2015/16 and are now c.5 years old
- The estimate covers sports betting only and excludes horse and dog racing, other betting, and casino games
- The estimate does not segment between online and land-based markets

4. Methodology

In this chapter we outline the methodology for this study. In summary, we have:

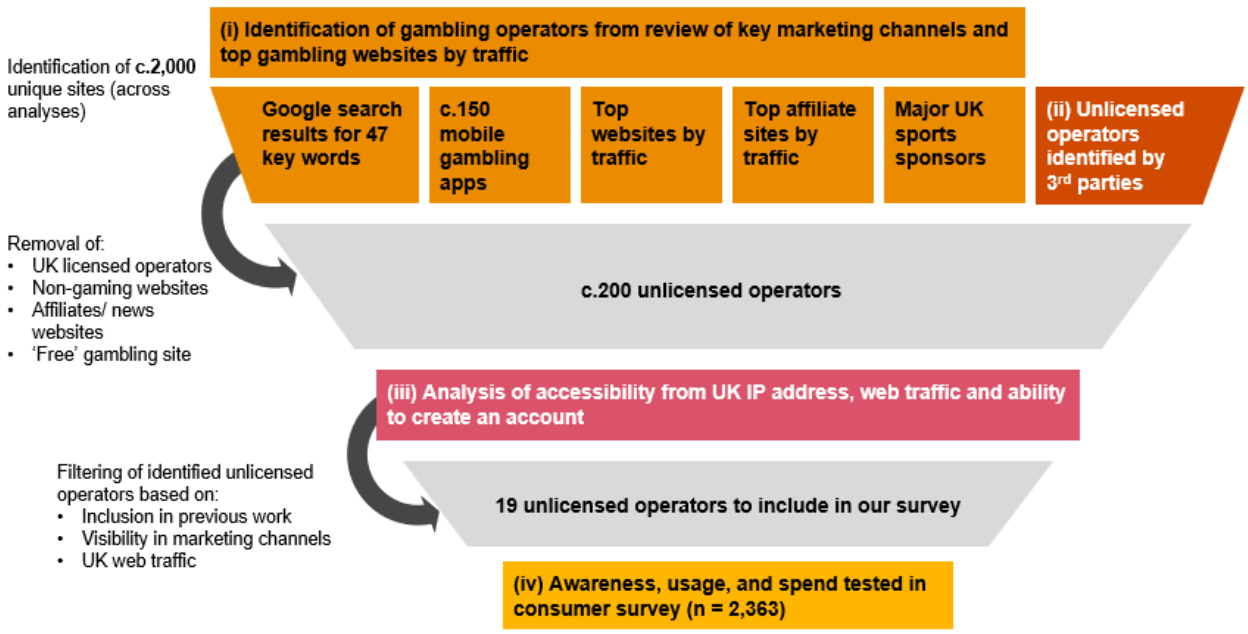
(i) Identified a list of unlicensed operators by reviewing key marketing channels (including Google search results, mobile apps, affiliates, and sports sponsors) and top gambling websites by traffic

(ii) Considered other unlicensed operators identified by BGC and its members through their own market experience

(iii) Assessed accessibility, web traffic and ability to create an account with unlicensed operators identified

(iv) Conducted an online consumer survey with a nationally representation sample of 2,363 active UK online gamblers to test awareness, usage, and spend with 19 key unlicensed brands and the motivations for using unlicensed providers

Figure 4.1 – Overview of operator identification and filtering methodology



We completed our fieldwork in November and December 2020. While the data presented in our report attempts to be the latest at the time of writing, we cannot guarantee the completeness of the data at the time of publication.

In addition, we have also leveraged our previous work on UK unlicensed online gambling conducted in 2018/19, including:

- Google search results, other marketing channels and web traffic analysis (conducted in October 2018)
- Survey of online gamblers conducted in October 2018 (n = c.1,010) and April 2019 (n = c.2,453)[50]
- Review of unlicensed gambling, using 3rd party sources, in seven other licensed European markets (conducted in April 2019)

We have used a consistent approach for both our 2018/19 and 2020 analysis in order to ensure that the results of our work are comparable. We have noted any variations in our approach in the detailed methodology that follows.

[50] **Note:** We expanded the survey sample in April 2019 in order to increase the reliability of the results found in October 2018 and confirm their validity

4.1. Operator identification (review of key marketing channels)

First, we outline our methodology to produce a list of gambling operators UK consumers are exposed to and the top gambling websites by web traffic. In the next section, we outline our approach to filtering the list of operators.

Google search results

To assess gambling operators to which UK consumers are exposed, we performed an analysis of Google search results for 47 key gambling key words, covering betting, online casino and slots – the full list of terms is outlined in the Appendix (Figure 8.1). The terms included in our analysis are the same as those used in our 2018/19 work.

Figure 4.2 – Google key words

Source: PwC analysis, UK Gambling Commission

	Number of key words included	Gambling areas covered
Online sports betting	24	Selected key words for sports and events that cover 88% of remote sports betting GGR – including football, horse racing, virtuals, tennis, and dog racing[51]
Online gaming (casino and slots)	23	For card/ tables games, selected key words covering roulette, poker, baccarat, Blackjack, and 21 – used land-based gambling as a proxy where these tables games accounted for 94% of physical tables and 99% of casino win[52]. Also included terms covering slots

To select appropriate key words within each gambling vertical, we assessed relative number of searches using Google Trends[53]. For example, to select key words covering football betting we looked at the relative number of searches for “football bet”, “football betting”, “football odds”, “football betting sites” and “online football betting”. This allowed us to select the most frequently used key words for each gambling vertical[54].

Our analysis has been conducted as an “unsuspecting user”. Therefore, we have not tested any key words specifically aiming to identify unlicensed websites.

We used an API to analyse the search results for our key words. This ensured that our results are agnostic of cookies, search history, and regional location that Google normally uses to tailor search results to individual users. The Google search location was set to the United Kingdom, the domain to google.com, the language to English and the safe search option was disabled. We repeated the analysis, using the same key words, for both Google desktop search and Google mobile search to enable us to test for differences in search results between device types.

For each key word we have analysed the first 10 pages of results, corresponding to c.100 results[55]. This accounts for the majority of web traffic from Google search results. Research conducted by Chitika using US and Canada search results found that the first 10 pages account for c.99% of traffic from desktop Google searches[56,57].

[51] **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC (Nov. 2020)
[52] **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC (Nov. 2020)
[53] **Source**: trends.google.com (November 2020)
[54] **Note**: This exercise to select the terms was undertaken in our 2018 analysis. To maximise consistency, we have used the same key words in our 2020 work and verified that these terms were still the most relevant in terms of volume of searches
[55] **Note**: The actual number of results may deviate slightly from 100 per key word depending on the number of paid results and device type
[56] **Source**: “No. 1 Position in Google Gets 33% Of Search Traffic”, Search Engine Watch (Jun. 2013)
[57] **Note**: Studies have shown that this click-through rate by Google search result position (and hence share of traffic from these results) is broadly consistent across industries and has been broadly consistent in recent years; **Source**: Google Organic CTR History, Advanced Web Ranking

Mobile apps

Gambling on mobile currently accounts for 52% of UK online gambling GGR[58]. Gambling apps, which allow users to game and place bets for real money, are currently available on both the Apple App Store and the Google Play Store. The Google Play Store had previously banned real money gambling (i.e. casino/ slots and betting) apps in 2013. However, the ban was removed in selected regulated markets, including the UK, Ireland, and France in 2017[59].

Consistent with our previous analysis, we have screened apps available on both Apple App Store and Google Play store – the two largest app stores. Neither app store has a gambling category filter for apps available, therefore, we have utilised the search functionality on these platforms to identify apps. For each key word, we reviewed the top 15 apps. A summary of the key words used can be seen below in Figure 4.3 and the full list of the key words used is provided in the Appendix (Figure 8.2).

Figure 4.3 – Apple App Store and Google Play Store key words

Source: PwC analysis, UK Gambling Commission

	Number of key words	Gambling areas covered
Sports Betting	5 key words	Including horses, football, tennis, and virtuals – four largest sports which account for 85% of online gambling GGR[60]
Casino/ slots	4 key words	Casino, bingo, slots, and poker

We have not attempted to download these apps and we have evaluated whether these apps offer 'free'/ 'simulation' games or 'real money' gambling based on the description listed within the app stores.

Web traffic

We used SimilarWeb data to identify the largest gambling websites by number of UK website visits during the month of September 2020 (data for last 12 months are not available)[61]. Our analysis covers the top 100 gambling websites as well as the top 100 webpages for the following sub-categories: sports, casino, bingo, and poker[62].

Gambling affiliates

We have identified gambling affiliates within the top 100 gambling websites from SimilarWeb (including relevant sub-categories) as well as when screening our Google search results. Of the sites that we identified as affiliates, we selected the top six webpages which accounted for c.70% of the total web traffic to the sites that we identified as affiliates. For each affiliate, we have reviewed all gambling operators that are listed on their website.

[58] **Source**: H2 Gambling Capital (2019)
[59] **Source**: "Google Experimenting with Gambling Apps in The Play Store in Some Countries", Online Gambling Sites (Aug. 2017, updated Sep. 2020)
[60] **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC
[61] **Note**: SimilarWeb is a provider of digital performance information across desktop and mobile website traffic. It collects its data by triangulating first-party data from website owners, data from partners, public data sources, and anonymous consumer data
[62] **Note**: SimilarWeb categorises websites uniquely into a sub-category and thus websites do not appear in more than one sub-category

Sponsors of major UK sporting teams/ venues

Sponsorship of sports teams, events, and venues is an additional marketing channel for gambling operators. In addition to our web search and traffic analyses we have also reviewed sponsors of several major sports. Our analysis covers Football, Horse Racing, Tennis, Dog Racing, and Rugby. These sports account for 85% of online sports betting GGR[63]. Figure 4.4 below outlines our approach for reviewing these sports.

Figure 4.4 – Sponsors of UK sports teams/ venues reviewed

Source: UK Gambling Commission

	% of licensed online betting GGR[64]	Sponsors reviewed
Football	48%	Team sponsors of English Premier League and Championship football clubs
Horse racing	28%	Track sponsors of 25 largest racecourses by attendance (as a proxy for popularity). These racecourses account for 76% of UK racecourse attendance
Tennis	5%	Tournament/ venue sponsors of major ATP world tour tournaments taking place in the UK. This comprises of Wimbledon, ATP Finals (at the O2) and Queen's Club Championships
Dog Racing	3%	Venue sponsors of UK greyhound racing tracks (22 Greyhound Board of Great Britain stadiums and 5 independent stadiums)
Rugby	n/a (included in other)	Team sponsors of English Premiership rugby clubs

[63] **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC
[64] **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC

4.2. Filtering of operators

In this section, we outline the methods used to remove licensed operators' URLs and other results that are not unlicensed operators.

Our analyses outlined in Section 4.1 produced an extensive list of domains of which only a subset were unlicensed operators. We therefore conducted a filtering exercise to allocate sites to a number of categories highlighted in Figure 4.5 below.

Figure 4.5 – Website domain categorisation

Website category	Explanation	Example	Unlicensed operator?
UK licensed gambling website	Website registered on the UKGC's webpage as an active licence-holder	Bet365	✗
Non gambling websites	Non gambling websites that are included within Google search results for gambling related key words	Wikipedia (page on sports betting)	✗
Gambling affiliates and gambling news websites	Gambling affiliates generate revenues from referrals to gambling operators as such they do not require a licence from UK Gambling Commission	Racing Post	✗
'Free' gambling sites	These websites and apps allow customers to play games without staking or real money prizes	Free Lottery	✗
Foreign domains of UK licensed domains	Overseas domains of UK licensed operators	betway.lat redirects to betway.com	✗
Unlicensed gambling domains that geo-block UK consumers[65]	Whilst included within Google search results, these operators are not assessable from a UK IP address		✓ These operators are the focus of our study
Unlicensed gambling domains that allow UK consumer traffic	These unlicensed domains are accessible from a UK IP address		

The filtering process to assign websites to these categories comprised of two key steps:

1) Firstly, we leveraged the list of licensed operators and website domains published on the UKGC webpage as retrieved on the 4th of November 2020 to identify UK licensed domains[66]:
   - We only considered licensed operators which were listed on the UKGC's site as having an 'active' licence for 'remote' gambling activities (generating 667 trading names)
   - We further assessed licensed domains by including all domains listed as 'active' or 'white label' (producing a final list of 1,784 websites)

[65] **Note**: Our assessment has been completed as an 'unsuspecting' user and therefore we have not tested whether it would be possible to access these sites by utilising a VPN in another jurisdiction
[66] **Source**: GC Public Register (Sector – Remote, Status – Granted), UKGC (Nov. 2020)

- In completing our work, we have not conducted an audit of the licensing status of individual operators. We matched the URLs of licensed operators to the list of sites generated by our analyses as outlined in Chapter 5.1 to identify all gambling websites

2) Secondly, we sorted remaining URLs into the categories outlined in Figure 4.5 above and filtered the list of URLs to only include unlicensed operators' websites, which are the focus of our analysis.

We compared our list of URLs with the list generated in our previous work in 2018/19 to identify any similarities in our results.

4.3. Unlicensed operators identified by third-party analysis

To complement our analysis, we have considered additional unlicensed operators previously identified by BGC and a selection of their members.

- William Hill has provided us with a list of unlicensed sites and associated analyses that they have identified as below:
  - Sites were identified using third-party scanning technology specialising in gambling compliance to identify operators who do not hold a UK licence. These tools were able to verify trading and licence details against the UKGC's list of authorised operators and identify operators that promote themselves as a non-GamStop registered company (or are those that are referenced within online forums as operating illegally)
  - Analysis of the ability to use these sites from the UK including accessibility from a UK IP address, ability to open an account, ability to deposit funds, ability to place bets, ability to withdraw funds, and necessity of verification upon registration/ withdrawal
  - Identification and testing of Unlicensed Operators was undertaken by William Hill throughout 2020
  - To ensure that the information was up to date we have retested the accessibility from UK IP addresses and ability to create accounts with all unlicensed operators identified by William Hill as part of our work
- BGC and other members also provided us with a limited number of unlicensed casino domains they have identified as active in the UK

We have included any unlicensed operators identified in the analyses that follow which had not been identified through our own consumer marketing channel analysis.

4.4. Account creation

For unlicensed gambling domains that were accessible (i.e. not geo-blocked) from the UK, we tested whether it was possible to create an account on these websites. We have completed this as an 'unsuspecting user', as such we have:

- Used a real UK address. We have not tested if it would be possible to create an account based on using a false overseas address
- Used a UK based IP address. We have not tested whether it would be possible to create an account by utilising a VPN in another jurisdiction

We have also assessed whether consumers must input their age in order to create an account and whether account creation is possible for underage players.

We have not assessed the subsequent ability to deposit or place a bet with an operator after account creation.

4.5. Web traffic analytics

For the operators that we have identified as unlicensed, we have collected data on the number of visits over the last 12 months from UK IP addresses using SimilarWeb[67]. This will not include any website traffic to unlicensed sites by UK consumers using a VPN based in another jurisdiction.

4.6. Consumer survey

In this section, we outline the methodology for our survey of a nationally representative sample of 2,363 consumers who have participated in online gambling in the last 12 months which was conducted online. We have used the same methodology as our 2018/19 survey to ensure that our results are comparable and used the same questions to assess unlicensed operator awareness, usage and spend.

We report the observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. As such, we have also considered the 95% confidence interval for our results to confirm their validity which are provided in the Appendix.

Survey timing

Our survey of online gamblers was completed in November to December 2020.

The survey conducted as part of our previous work in 2018/19 was completed in two phases: October 2018 (n = 1,010) and April 2019 (n = 2,453).

Survey sample and screening questions

We used the same survey panel provider for both our 2018/19 and 2020 surveys and have used the sample sampling and screening methodology for consistency.

In order to generate results that provide a representative view of the online gambling market, we took the following steps:

- Survey invitations were sent out to a nationally representative panel of UK consumers based on age, gender, NRS social grade, and location (nationally representative of the UK as a whole and agnostic of gambling participation)
- Used screening questions to assess whether respondents had participated in online gambling in the last 12 months and hence were eligible to complete our survey (see Figure 4.6)

Our screening questions have utilised an ‘open’ question style[68] to minimise the risk that respondents give false answers in order to progress through the survey.

[67] **Note**: SimilarWeb is a provider of digital performance information across desktop and mobile website traffic. It collects its data by triangulating first-party data from website owners, data from partners, public data sources, and anonymous consumer data

[68] **Note**: E.g. “Which of the following activities have you participated in?” rather than “Have you participated in gambling?”

Figure 4.6 – Overview of customer survey screening questions

	Question	Available answers	Option to progress
Screening question 1	Which of the following activities have you participated in over the last 12 months? (Select all that apply)	Variety of activities (e.g. reading, DIY) that included gambling	Only those who selected gambling passed screening level 1
Screening question 2	You mentioned you have bet/gambled in the last 12 months. How did you do this? (Select all that apply)	In person Using computer, mobile or tablet By telephone	Only those who selected computer, mobile or tablet passed screening level 2
Screening question 3	Thinking about your online betting/ gambling (i.e. on a computer, tablet and or mobile – internet or app), which of the following have you bet/ played in the last 12 months? (Select all that apply)	Slots Casino games (e.g. blackjack, roulette) Sports betting Horse racing betting Dog racing betting Poker Bingo Lottery Social/ free money games (i.e. games with no financial cost or reward)	Only those who selected slots, casino or sports/dog racing/horse racing betting passed screening level 3 (these gambling products are the focus of this study)

Our results from screening questions 1 & 2 found that 19% of our panel participated in online gambling in the last 12 months which is slightly higher than UKGC's gambling participation in September 2020 (17%). However, there are several definitional differences including that UKGC's survey measures participation in the last four weeks rather than last year. This is outlined in Figure 4.7 below.

Figure 4.7 – Comparison of online gambling participation

Source: PwC analysis, UK Gambling Commission

Source	Measure	Result
UKGC gambling participation survey[69]	• Usage in past four weeks • Conducted Sep. 2020 • Online gaming and betting (excluding lottery)	16.9%
PwC customer survey	• Usage in past 12 months • Conducted Dec. 2020 • Online gaming and betting (excluding respondents that only play lottery, bingo, or poker)	19.2%

[69] **Source**: Survey Data on Gambling Participation, UKGC (Oct. 2020)

Quality control

In order to validate the quality of our responses, we included 2 dummy brands within our survey to catch 'cheaters' who falsely stated that they were aware of or used operators. Suspected cheaters were removed from our data before it was analysed and were classified as follows:

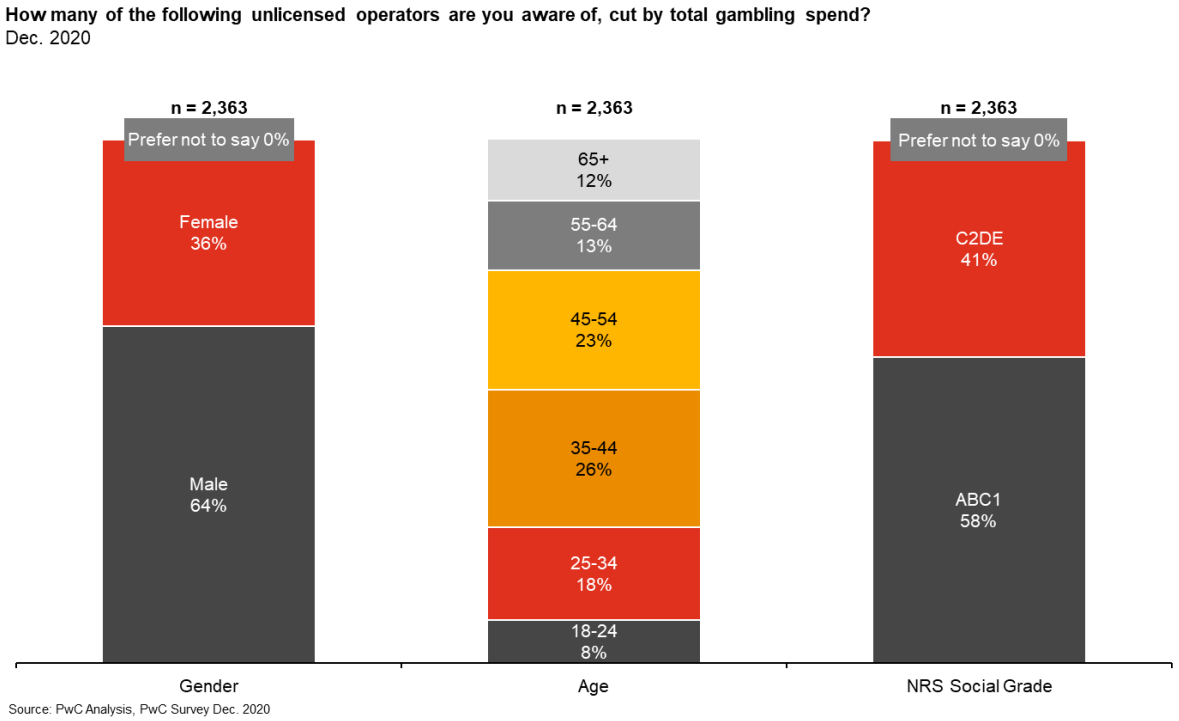
- Respondents who stated that they were aware of or used both dummy brands
- Respondents who stated that they were aware of or used one dummy brand and more than 15 other brands

We also removed respondents that completed the survey in less than 1/3 of the median survey session time and respondents who gave nonsense answers to open ended questions.

Survey demographics

The resultant demographics of respondents to our survey are outlined in Figure 4.8 below.

Figure 4.8 – Demographic profile of survey respondents **(2020)**



4.7. Limitations of our approach

This section outlines the limitations of our analyses and the parameters within which we have conducted our work.

Overall scope of work

- Our work only covers unlicensed online gambling and does not cover land-based gambling
- Our work focuses primarily on online betting and casino, in our consumer survey we have therefore not included consumers that only play lottery, poker, and/ or bingo. We have, however, collected information on the consumer usage and spend on bingo and poker products for consumer that have completed our survey (no data on lottery usage or spend captured)
- Given the nature of the work, no data source is able to give a complete and reliable representation of the market situation. Hence, we have used a combination of website analytics and survey data to triangulate our view against available data
- Due to difficulties outlined in this chapter, we have not calculated a precise view on the value of the unlicensed market. However, we have used our results to give an indicative estimate

Identification of unlicensed operators

- There are likely to be long tail of unlicensed operators not identified. Our analysis has focused on identifying more frequently used unlicensed operators and hence we have limited our analysis to the top 100 results from selected Google key words, top 15 results from selected Mobile App store key words, top 100 webpages by traffic, and top sports teams/ venue for largest sports for betting

Filtering of operators

- We have removed licensed operators (from our list of gambling operators identified through our web traffic and Google Search analytics) based on the list of domains published on the UK Gambling Commission website. In completing our work, we have not conducted an audit of the licensing status of individual operators

Website accessibility, account creation & placing bets

- In carrying out our analysis we have assumed that consumers using unlicensed operators are ‘unsuspecting’ or casual/ leisure gamblers. We, therefore, did not attempt to specifically search for unlicensed operator websites on Google
- Furthermore, we did not test the possibility to access unlicensed operators’ webpages or create an account using:
  - A real or false overseas address whilst being located in the UK
  - A VPN in another jurisdiction
- We believe only more sophisticated and technologically aware gamblers, will be using such methods
- We have not tested whether it is possible to deposit or place bets with unlicensed operators while carrying out our work. It is possible that whilst an account can be created from the UK, operators do not allow a bet to be placed from the UK
- In addition, some foreign domains of UK licensed operators allow accounts to be created using a UK address without redirecting to a UK website domain. It is not possible to assess whether bets made with these accounts are recorded as UK bets or foreign bets for regulatory and tax purposes

Survey methodology

- Our survey sample covered a nationally representative sample of 2,363 respondents that participated in online gambling during the last 12 months. The sample size is more limited for individual gambling product verticals, due to the low proportion of gamblers using unlicensed operators

- We have restricted the estimation of the prevalence of unlicensed gambling in our survey to selected operators identified and selected using our marketing channel analysis, the assessment of account accessibility, and information provided by BGC and its members. Hence, our survey results highlight the awareness and usage of 19 specified unlicensed online operators. In addition, gamblers may have used one of a long tail of other unlicensed operators not included in our survey. Hence, our results could be interpreted as a conservative estimate of awareness, usage of, and spend with unlicensed operators

High spending customers

- The nature of gambling is that a small number of customers drive a significant proportion of gross gaming revenue for operators in the market[70]
- We believe that users of unlicensed operators are especially likely to be higher spending gamblers, based on our previous work within the gambling sector in other geographies. This is due to the fact that gamblers spending larger amounts of money are more likely to prioritise margins as there is a larger financial incentive to do so. Unlicensed operators can often have better margins as they may be paying less, or no, tax. In addition, higher stakes players are likely to be more sensitive to 'frictions' such as identity and source of funds checks. Therefore, higher stakes sophisticated gamblers tend to be more likely to use unlicensed operators
- We believe that high-spending or 'VIP' customers are less likely to be enrolled in an online survey panel and hence spend estimates from an online survey panel will likely underreport spend for unlicensed operators

Accuracy of reported gambling operator usage and spend

- Given the nature of gambling, it can be difficult to elicit truthful responses from survey respondents around their overall gambling spend
  - Gamblers may not remember or may choose not to reveal all operators that they have used
- In particular, gamblers may choose not to reveal usage of unlicensed sites if they are aware that they are unlicensed
  - We have attempted to mitigate this by not referring to operators' licensing status in our survey, but instead just using operators' brand names and logos in a randomly ordered list with licensed operators (e.g. Ladbrokes, William Hill)
- Spend levels per gambler reported in our survey are c.5 times lower than implied by UK Gambling Commission data. This suggests that gamblers may be underreporting their gambling spend or that our survey has not sufficiently captured very high spending gamblers who account for a significant proportion of gambling spend and we believe are more likely to use unlicensed operators

Comparisons with our previous work

- We have sought to maximise the comparability of the analysis of our current study with that conducted in 2018/19
- There are difficulties in comparing our estimated web traffic from unlicensed sites versus our previous work as the comparison at a market level is based on the number of operators identified via our marketing channel analysis
- We note that it is not possible to survey the same consumers and hence result may not be perfectly comparable. In order to maximise the comparability of our survey results we have:
  - Used the same questions to assess unlicensed operator awareness, usage and spend
  - Included the same number (19) of unlicensed operators

[70] **Note**: The Lords Select Committee in May 2020 highlighted that while VIPs tend to make up 1-3% of players they account for 30-50% of deposits

  - Used the same unlicensed brands where appropriate (11 of the 19 unlicensed brands are the same between surveys)

- Where there are variations in our methodology between 2018/19 and 2020, we have considered ‘like-for-like’ comparisons to verify our results (e.g. for our survey we have compared results based on the eleven brands included in both our 2018/19 and 2020 surveys)

5. UK unlicensed online gambling market analysis

In this chapter we present the key findings from our analyses and consumer survey. We have outlined the major changes in our estimates for unlicensed online gambling when comparing our 2020 results versus our 2018/19 results in Section 5.1. We have then presented our detailed results in sections that align to the key elements of the customer journey (Sections 5.2 to 5.7). This journey, and the key questions that we address within each step in the journey, are presented below in Figure 5.1.

Figure 5.1 – Gambling customer journey and key questions addressed in this study

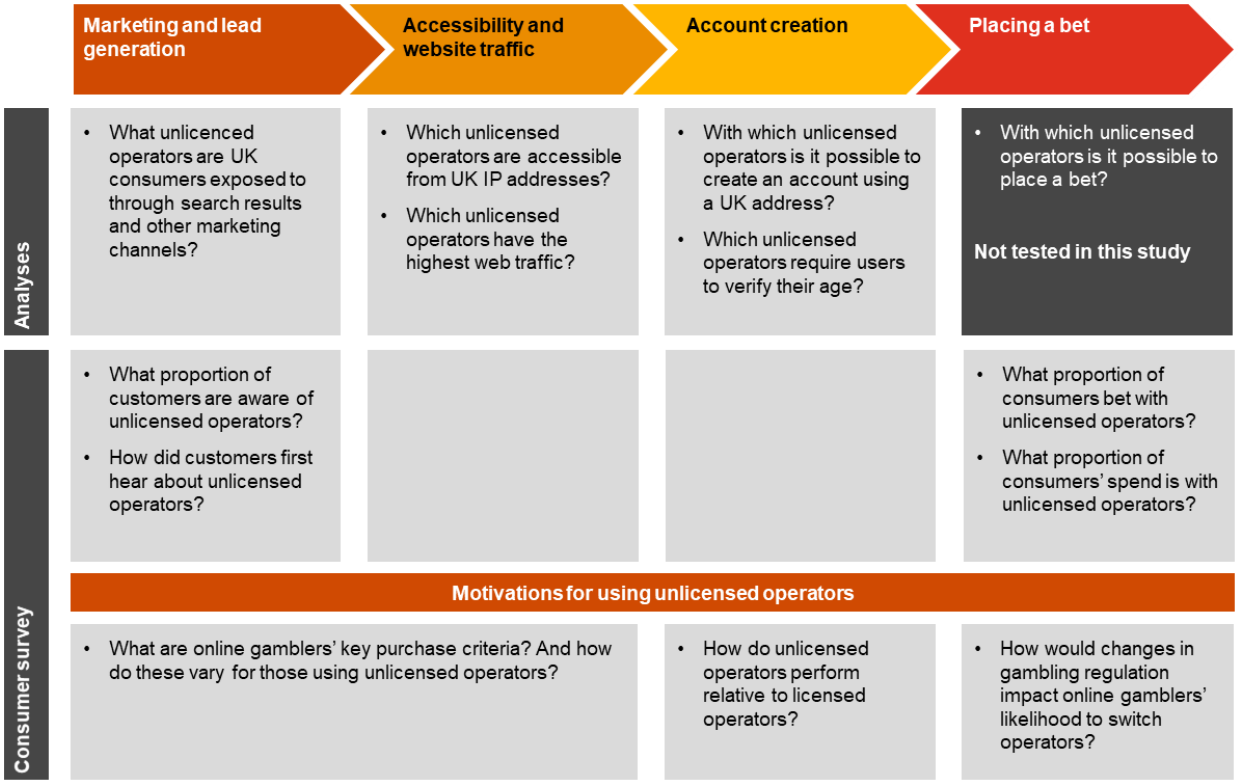


Figure 5.2 – Key findings from our analyses

Source: PwC analysis

Measure of unlicensed online gambling	Oct 2018 / March 2019	Nov 2020	Estimated scale of unlicensed online gambling market
Unlicensed operators in Google search results (PwC analysis, % of unique sites)	12%	5%	Reduction in unique unlicensed operator sites in Google search results (from 47 frequently used key words) from 229 to 98
Unlicensed operator awareness (survey, % of respondents)	47%	44%	Number of UK online gamblers who are aware of at least one unlicensed operator has remained the same at c.4.5m
Unlicensed operator usage (survey, % of respondents)	2.2%	4.5%	Number of UK online gamblers that have used an unlicensed operator in the last 12 months increased from c.210,000 to c.460,000
Unlicensed operator spend (survey, % of respondents' total spend)	1.2%	2.3%	Stakes with unlicensed operators in last 12 months increased from c.£1.4bn to c.£2.8bn

5.1. Key changes in UK unlicensed online gambling market

Visibility of unlicensed operators

There are a number of key changes from our review of Google search results for gambling key words since 2018:

- Reduction in unlicensed websites identified
  - We identified 489 individual search results (98 unique websites) in 2020 vs 812 individual search results (229 unique websites) in 2018 – see Figure 5.4
- Decline in proportion of unlicensed operators across all pages of search results with the most significant decline on the first two pages
  - c. 70% decline in the unlicensed results on the first two pages versus c. 30-50% for pages three to ten – see Figure 5.7
- Decline in the number of unlicensed sites was primarily driven by a reduction in the number of sites that appeared within search results less frequently
  - Number of unlicensed operators which appeared relatively frequently (i.e. in search results c.10-50 times) has remained relatively stable (15 in 2020 vs 19 in 2020), whilst those which appear less frequently (i.e. in search results 1-4 times) has declined significantly (68 in 2020 vs 178 in 2018) – see Figure 5.8
- Reduction in number of unique licensed operators in search results
  - 248 unique websites (from 3,388 individual search results) in 2020 vs 367 unique websites (from 3,530 individual search results) in 2018
- Increase in the number of aggregators and gambling information/ news websites
  - 472 unique websites (from 2,469 individual search results) in 2020 vs 264 unique websites (from 1,753 individual search results) in 2018

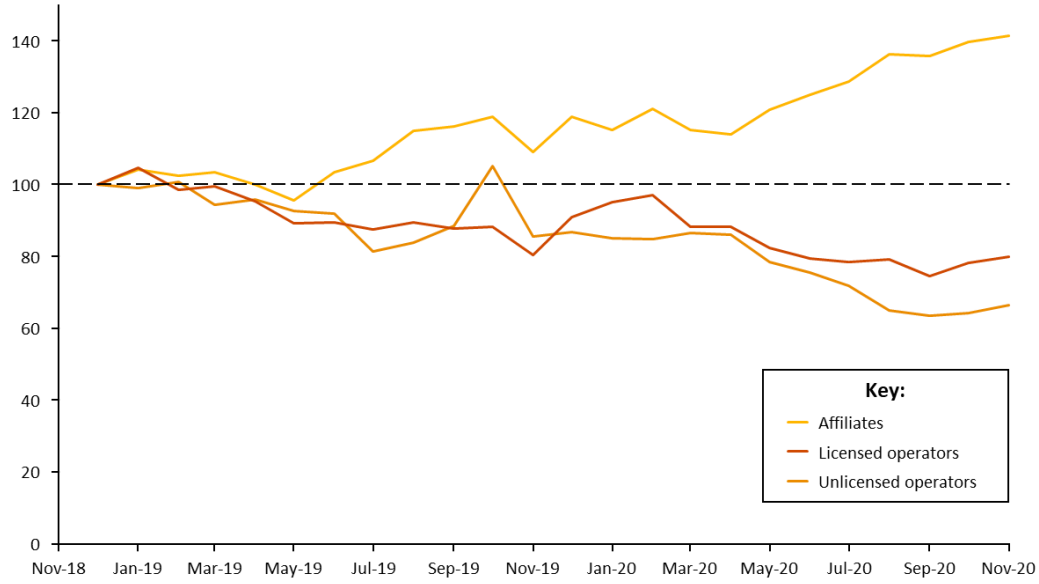
These declines in the visibility of unlicensed operators within Google search results appear to be primarily driven by changes in Google's search algorithm. As well as regular small updates to its algorithm, Google have

implemented 5 'confirmed core updates' since our previous analysis in 2018[71]. These updates can lead to significant fluctuation in the search rankings of individual websites and have been targeted at improving the relevance and credibility of Google's search results[72].

These updates to Google's algorithm appear to have led to significant variation in the visibility and search rankings of websites within Google search results for gambling key words – including unlicensed operators. Gambling affiliates, content rich and frequently updated websites appear to have particularly benefited from recent updates[73]. Less credible and lower traffic gambling websites (including many unlicensed operator websites) have seen their visibility decline[74].

As an illustration of this Figure 5.3 below (which is based on the largest operators and affiliates) shows that affiliates have become more visible in Google search results over the past 2 years, whilst the visibility of gambling operators (and particularly unlicensed operators) has declined.

Figure 5.3 – Number of appearances in top Google 100 search results for selected websites[75] **(Indexed Dec. 2018 = 100, Dec. 2018 – Nov. 2020)**



Source: SEMrush, PwC Analysis

Unlicensed operator awareness

Almost half (c.44%) of UK gamblers were aware of at least one unlicensed operator included in our survey which is a slight decline versus our findings in 2018/19 (47%).

However, when looking at the awareness of the eleven brands included in both our surveys we find an increase both at an aggregate level (35% of consumers were aware of one or more of the eleven brands in 2018/19 vs. 37% in 2020) and at an individual level (awareness for all but one of the eleven brands remained the same or increased[76]).

[71] **Note**: Google chooses to confirm an algorithm update if they believe there is actionable information for content producers and webmasters to consider
[72] **Source**: 'What Webmasters Should Know About Google's Core Updates', Google Search Central (Aug. 2019)
[73] **Source**: 'Niche and Branded Gambling Sites See Revenue Growth Following Google Core Update', Business Matters (Oct. 2020)
[74] **Source**: 'Google Shaking Up Organic Results in the Gambling Industry', Sayu (Jun. 2020)
[75] **Note**: "Affiliates" includes 10 affiliates that appeared most frequently in our 2020 Google search analysis; "Unlicensed operators" includes 10 operators that appeared most frequently in our 2018 Google search analysis; "Licensed operators" includes the seven largest licensed operators included in our 2018/19 and 2020 surveys
[76] **Note**: Awareness of one brand declined from 5% to 4%

Unlicensed operator website traffic

Web traffic to the eleven unlicensed operators included in both our 2018/19 and 2020 surveys increased by c.85% from Oct. 2018 to Nov. 2020[77].

However, total web visits to all unlicensed sites that we have identified has remained broadly stable at c.27m annual visits, a slight decline in the share of total gambling web visits from 2.5% in 2018 to 2.4% in 2020. This result should be read with caution as it is primarily driven by a decline in the number of unlicensed operators that unsuspecting users are exposed to within Google search results.

Unlicensed operator usage and spend

Based on our survey, the proportion of UK gamblers using an unlicensed operator has increased from 2.2% to 4.5% in the last 1-2 years[78]. This equates to an increase from c.210,000 players in 2018/19 to c.460,000 in 2020.

Similarly, our survey found that share of stakes with unlicensed operators had grown from 1.2% in 2018/19 to 2.3%[78]. This corresponds to a doubling of stakes with unlicensed operators from £1.4bn to £2.8bn[79].

[77] **Note:** Considering all 19 sites included in our 2018/19 traffic increased by c.15% as a number of these sites no longer exist

[78] **Note:** Observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. We have verified that our data supports increased usage of unlicensed operators at the 95% confidence interval (see Appendix)

[79] **Note:** Estimated unlicensed stakes is based on unlicensed operators accounting for 2.3% of stakes from our consumer survey and licensed online UK gambling stakes from UKGC

5.2. Marketing and lead generation

In this section, we outline the prevalence of unlicensed operators on key marketing channels, and the awareness of unlicensed operators amongst UK online gamblers.

Google search results

Our analysis of 47 key words gave 9,313 individual organic search results[80] which comprised of 1,782 unique websites.

Gambling operators (licensed and unlicensed) accounted for 42% of search results and 19% of unique sites. The proportion of unique sites was lower due to gambling operators appearing more frequently than non-operators.

Unlicensed sites accounted for 13% of search results that were gambling operators (5% of total search results). This identified 98 unique unlicensed operators (28% of all gambling operators identified).

Figure 5.4 – Summary of Google organic search results **(Nov. 2020 vs. Oct. 2018)**

Source: PwC analysis

	2020		2018	
	Individual search results	Unique sites	Individual search results	Unique sites
Total organic search results	9,313	1,782	8,825	1,963
Gambling operators (% of total results)	3,877 42%	346 19%	4,342 49%	596 30%
Unlicensed operators (% of all operators) (% of total results)	489 13% 5%	98 28% 5%	812 19% 9%	229 38% 12%

Compared to 2018, the number of individual search results that were gambling operators declined by 11% (7ppts) whereas the number of unique gambling operators declined by 42% (11ppts). This was primarily driven by a reduction in the number of unlicensed sites identified. Changes to Google's algorithm appear to be a significant driver in the reduction of unlicensed sites[81].

The number of unique gambling sites was significantly higher for gaming than betting key words – as shown in Figure 5.5. This is likely a manifestation of greater fragmentation in the gaming market[82]. Despite this, the prevalence of unlicensed operators was lower for gaming (42 sites, 17% of operators) than betting (62 sites, 41% of operators). These results are consistent with our findings in 2018.

[80] **Note**: Excludes paid search results
[81] **Note**: See Chapter 5.1 for explanation
[82] **Source**: Industry Statistics (Apr. 2019 to Mar. 2020), UKGC

Figure 5.5 – Summary of Google search results split by betting and gaming terms **(Nov. 2020)**

Source: PwC analysis

	Betting (24 key words)		Gaming (23 key words)	
	Individual search results	**Unique sites[83]**	**Individual search results**	**Unique sites[22]**
Total organic search results	4,760	698	4,553	1,204
Gambling operators (% of total results)	2,067 43%	150 21%	1,810 40%	242 20%
Unlicensed operators (% of all operators) (% of total results)	332 16% 7%	62 41% 9%	157 9% 3%	42 17% 3%

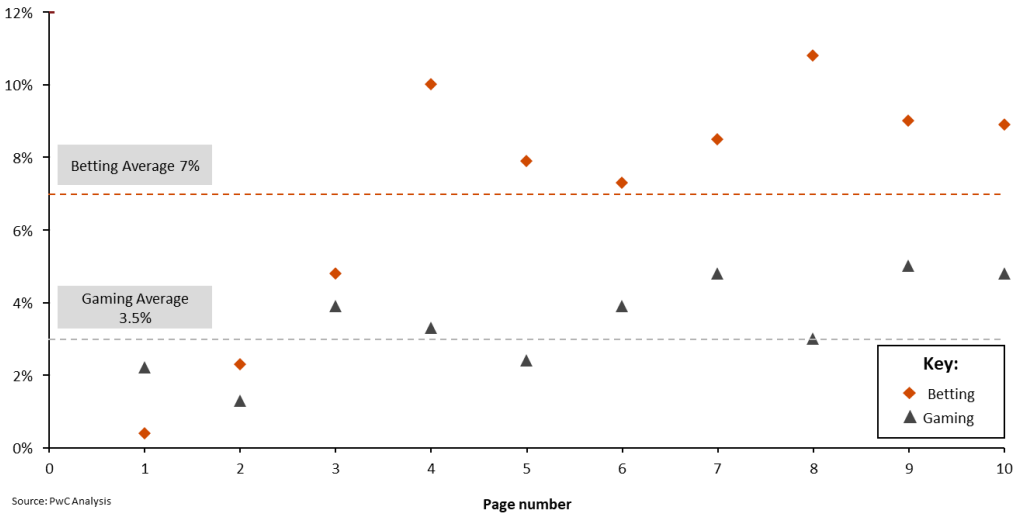
Unlicensed gambling operators accounted for 5% of all search results, although this significantly varied by page:[84]

- Only 1% of results on page 1 were unlicensed operators
- Unlicensed operators accounted for a higher proportion of search results on later pages. On pages 7-10, around 7% of search results were unlicensed operators. A broadly similar trend was observed for both desktop and mobile devices

There was also variation between betting and gaming key terms (see Figure 5.6):

- Gaming generated a significant higher proportion of unlicensed operators than betting on page 1 (2.2% vs 0.4%, respectively)
- Betting key words generated a significantly higher share of unlicensed operators than gaming on pages 2-10

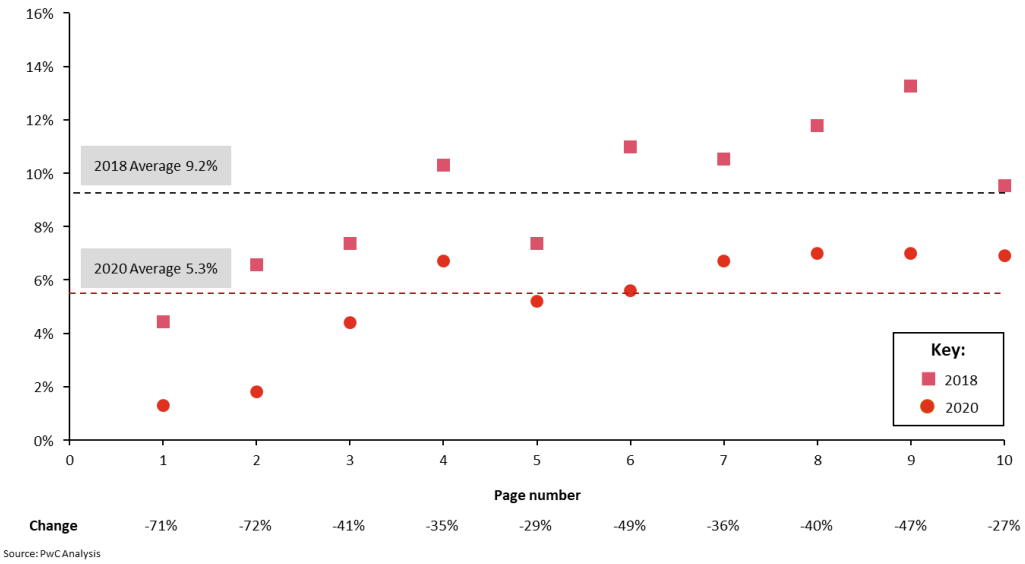
Figure 5.6 – Unlicensed operators as % of total organic search results by key word, by page *(Nov. 2020)*



Versus our 2018 analysis, there has been a decline in the share of unlicensed operators across all pages of Google search results. The greatest decline is seen in the first two pages of results. This is shown in Figure 5.7.

[83] **Note**: The number of unique sites for the betting versus gaming term splits does not sum to the total unique sites shown in Figure 5.4 as a site identified from both a betting and a gaming key word are counted twice
[84] **Note**: We have assumed that each page includes 10 organic search results although this may vary

Figure 5.7 – Unlicensed operators as % of total organic search results, by page **(Nov. 2020 vs. Oct. 2018)**



No individual gambling operator accounted for a significant proportion of search results. Unlicensed operators appeared less frequently than licensed operators within search results. The unlicensed operator that appeared most frequently accounted for 0.3% of search results versus 1.2% for the most frequently appearing licensed operator. There were a significant number of operators, particularly unlicensed operators, with a low number of occurrences within the organic search results – see Figure 5.8.

Figure 5.8 – % of total organic search results of licensed and unlicensed operators in Google organic search results **(Nov. 2020 vs. Oct. 2018)**

Source: PwC analysis

		2020	2020	2018
% of total search results	Number of occurrences in search results[85]	Number of **licensed** operators	Number of **unlicensed** operators	Number of **unlicensed** operators
0.00% - 0.05%	1 - 4	117	68	178
0.05% - 0.10%	5 - 9	40	15	32
0.10% - 0.50%	10 - 46	69	15	19
0.50% - 1.00%	47 - 93	21	-	-
1.00% - 10.00%	94 - 931	1	-	-

Compared to the results of our 2018 analysis, the number of more prominent unlicensed operators (i.e. those accounting for 0.1%-0.5% of search results) was relatively similar. However, there has been a significant decline in unlicensed websites with a lower number of occurrences within the search results. This is consistent with the broader finding that smaller and less prominent sites have been deprioritised by changes in Google's algorithm in the last 2 years.

Other marketing channels

As outlined in our methodology (Chapter 4) we have also considered other marketing channels by which 'unsuspecting' customers[86] could be exposed to unlicensed operators. Our analyses of these marketing channels did not identify any unlicensed operators (see Figure 5.9 below). Our 2018 analysis identified a small

[85] **Note**: The number of times the website appeared across the 9,313 individual search results identified through our Google search results analysis
[86] **Note**: Unsuspecting users are people who are not actively looking for unlicensed operators

number of unlicensed operators within mobile apps (3 operators, 2%), but otherwise the results were consistent with our 2020 assessment.

Figure 5.9 – Unlicensed operators on other marketing channels **(Nov. 2020)**

Source: PwC analysis

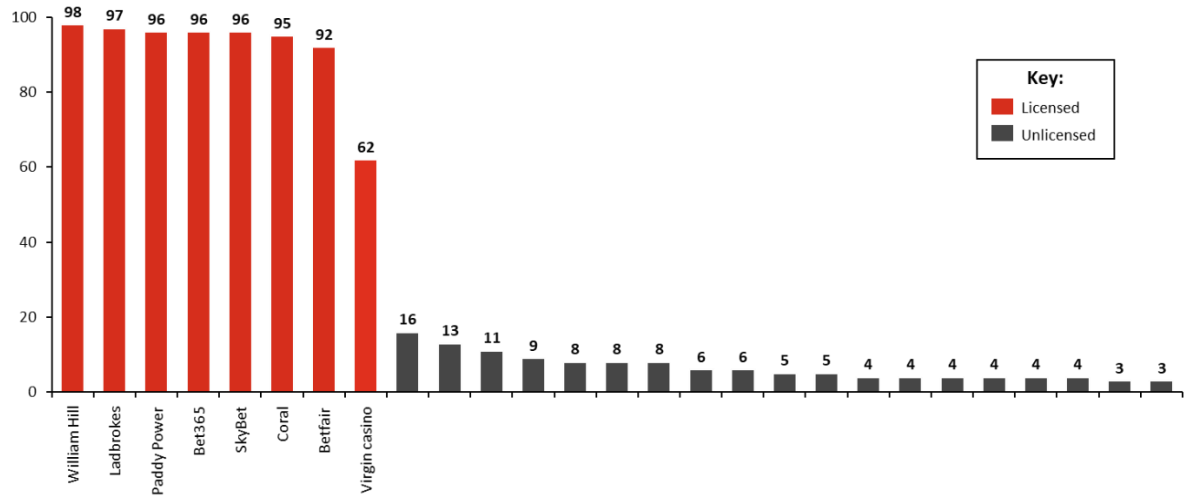
Marketing channel	Number of listings reviewed	Number of unique operators	Number of unlicensed operators (% of total)	2018 Number of unlicensed sites (% of total)	Comments
Affiliate websites	85	43	0 (0%)	0 (0%)	
Mobile Apps	270	154	0 (0%)	3 (2%)	Google Play Store has only allowed real money gaming betting apps since 2017
Sponsorship of major sports teams and venues	64	48	0 (0%)	0 (0%)	

Unlicensed brand awareness[87]

We tested the awareness of specific licensed and unlicensed operators in our survey with a nationally representative sample of 2,363 online gamblers and found that:

- UK licensed operator (included for reference purposes) awareness was high with over 90% of respondents aware of each brand with the exception of Virgin Casino (63%)
- Unlicensed operators had lower levels of awareness with individual operator awareness between 3% and 16%
- 44% of respondents said they were aware of at least one unlicensed operator

Figure 5.10 – Overall % awareness, by operator **(Dec. 2020 – n=2,363)**



Source: PwC Analysis, PwC Survey Dec. 2020

[87] **Note:** We report the observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. As such, we have also considered the 95% confidence interval for our results to confirm their validity which are provided in the Appendix

Compared to the results of our 2018/19 survey, we found that:

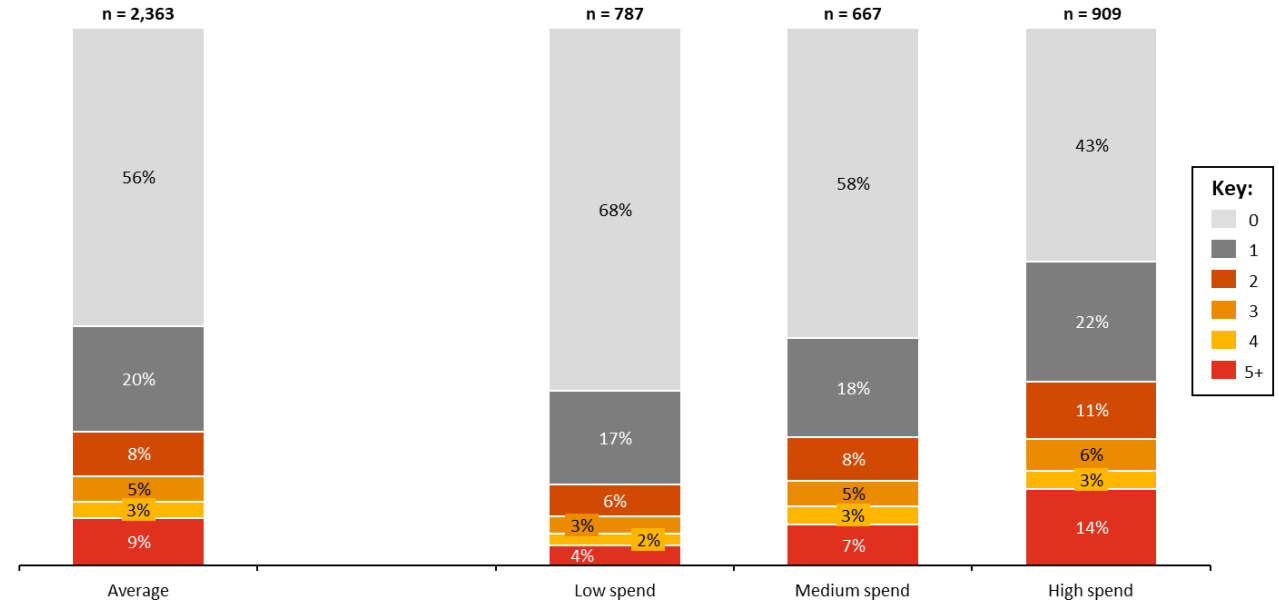
- Awareness of one or more unlicensed brands has declined slightly from 47% of respondents to 44%
- Of those who were aware of unlicensed operators, the average number of brands that they were aware of was 2.9
- For the eleven brands included in both our surveys, we see an increase in awareness both at an aggregate level (35% of consumers were aware of one or more of the eleven brands in 2018/19 vs. 37% in 2020) and at an individual level (awareness for all but one of the eleven brands remained the same or increased[88])

Unlicensed brand awareness – by gambling spend[89]

High spending gamblers had significantly higher awareness of unlicensed operators versus lower spending gamblers. 57% of high spend gamblers were aware of at least one of the listed unlicensed operators vs. 32% for low spenders. This difference may be due to:

- High spenders may be more likely to search online for deals and marginally better odds (since there is a larger financial incentive if the stakes are higher). While looking for odds, they have a greater chance of encountering unlicensed operators (whether they are aware of it or not)
- Some licensed operators may refuse to accept higher stakes gamblers, pushing them to look for unlicensed alternatives
- Higher stakes gamblers may be more likely to look for unlicensed operators that may not follow as stringent identity or source of funds checks

Figure 5.11 – Number of listed unlicensed operators respondents were aware of, by total gambling spend **(Dec. 2020 – n=2,363)**



Source: PwC Analysis, PwC Survey Dec. 2020

Compared to our survey conducted in 2018/19, awareness of unlicensed operators has slightly increased for high spending gamblers whilst awareness amongst low and medium spenders has decreased – see Figure 5.12 below.

[88] **Note**: Awareness of one brand declined from 5% to 4%
[89] **Note**: Low spend: less than £25 total spend per month, Medium spend: £25-£75 total spend per month, High spend: more than £75 spend per month

Figure 5.12 – % awareness of one or more listed unlicensed gambling operators, by total gambling spend **(Oct. 2018/ Mar. 2019 – n=3,463, Dec. 2020 – n=2,363)**

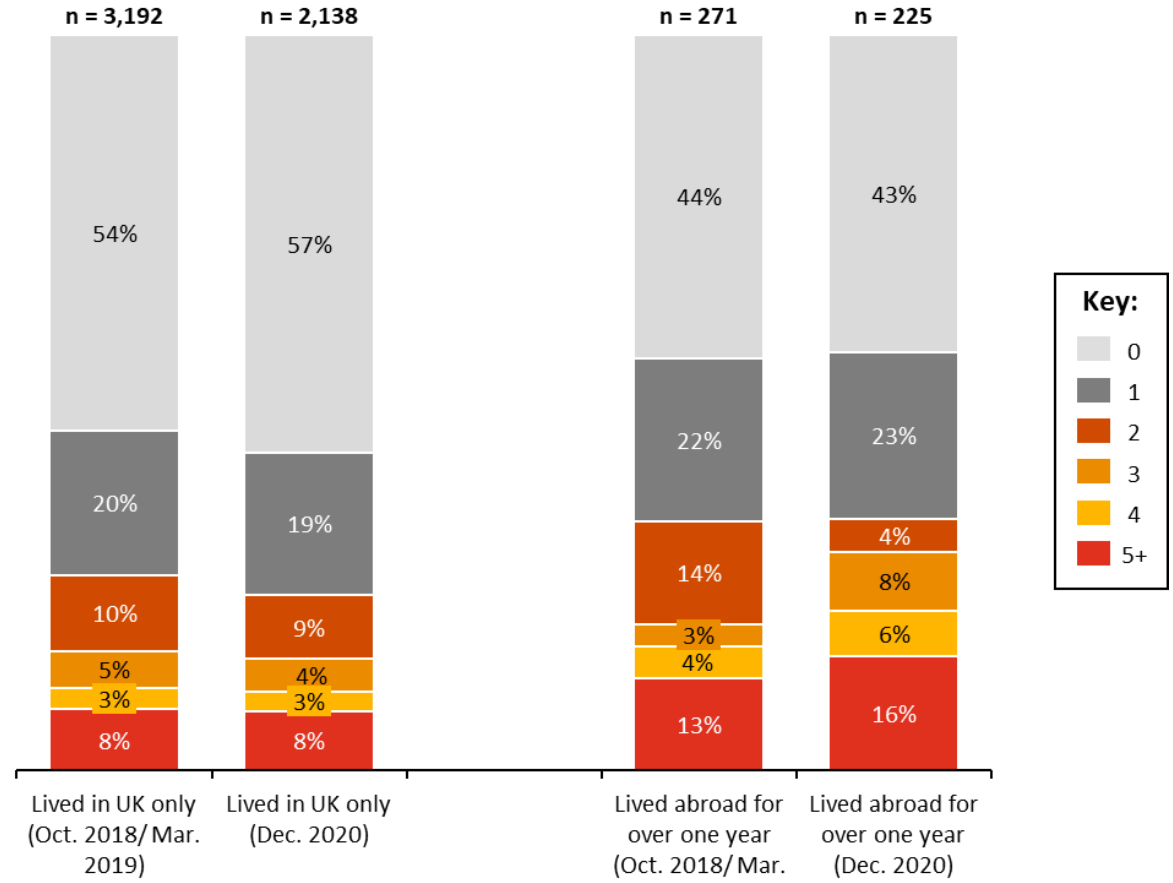
Source: PwC analysis

	Total	Low spend	Medium spend	High spend	Average number of unlicensed operators respondents were aware of
PwC survey 2018/2019	**47%**	39%	47%	56%	**2.8**
PwC survey 2020	**44%**	32%	42%	57%	**2.9**

Unlicensed brand awareness – by time spent living abroad

Online gamblers who had spent over a year or more living abroad had significantly higher awareness of unlicensed operators (which may have a licence in the country they lived in) compared to those who have only lived in the UK[90]. This finding is consistent with the results from our previous survey in 2018/19.

Figure 5.13 – Number of listed unlicensed operators respondents were aware of, by whether respondent had spent over a year living abroad or not **(Oct. 2018/ Mar. 2019 – n=3,463, Dec. 2020 – n=2,363)**



Source: PwC Analysis, PwC Survey Oct. 2018/ Mar. 2019, Dec. 2020

[90] **Note**: The sample size of gamblers who have lived abroad for a year is relatively small (225 respondents), especially compared to the sample of respondents who have lived in the UK

5.3. Accessibility and webpage traffic

In this section, we present our analyses of which unlicensed operators' webpages are accessible from UK IP addresses and web traffic to these sites.

Assessment of top gambling sites by traffic

In addition to reviewing key marketing channels, we also reviewed the top UK gambling sites by web traffic to identify unlicensed operators. This was conducted for the top 100 gambling websites as well as the top 100 sites for each product vertical (bingo, sports, casino, and poker).

We identified two unlicensed sites in the top 100 UK gambling websites, which accounted for 0.6% of the traffic to these 100 sites. The proportion of unlicensed sites was higher for top 100 sites for each product vertical, due to unlicensed sites appearing near the bottom of the 100 sites and as such unlicensed sites for each product vertical were not included in the overall top 100 gambling websites. These results are shown in Figure 5.14.

Figure 5.14 – Summary of traffic to top 100 UK sites (by traffic volume) for overall gambling and product verticals **(Sept. 2020)**

Source: PwC analysis, SimilarWeb

Segment	Number of unlicensed operators included in top 100 UK sites (by traffic volume)	Traffic to unlicensed sites (as % of traffic to top 100 sites)	Top 100 sites as a proportion of total category traffic
Bingo	1	0.2%	95.7%
Sports	1	0.4%	93.0%
Casino	1	0.2%	87.6%
Poker	3	1.0%	92.8%
Gambling[91]	**2**	**0.4%**	**78.6%**

Comparisons between gambling sub-categories should be read with some caution. The poker and casino markets are more fragmented, as shown by the proportion of total sub-category traffic from the top 100 results. Hence, unlicensed operators might be expected to appear more frequently in the top 100 results for these categories.

[91] **Note**: Top 100 gambling sites, not a sum of sub-categories listed above. Total gambling includes lottery websites, however, the lottery sub-category was not reviewed separately as it is not within the scope of this report

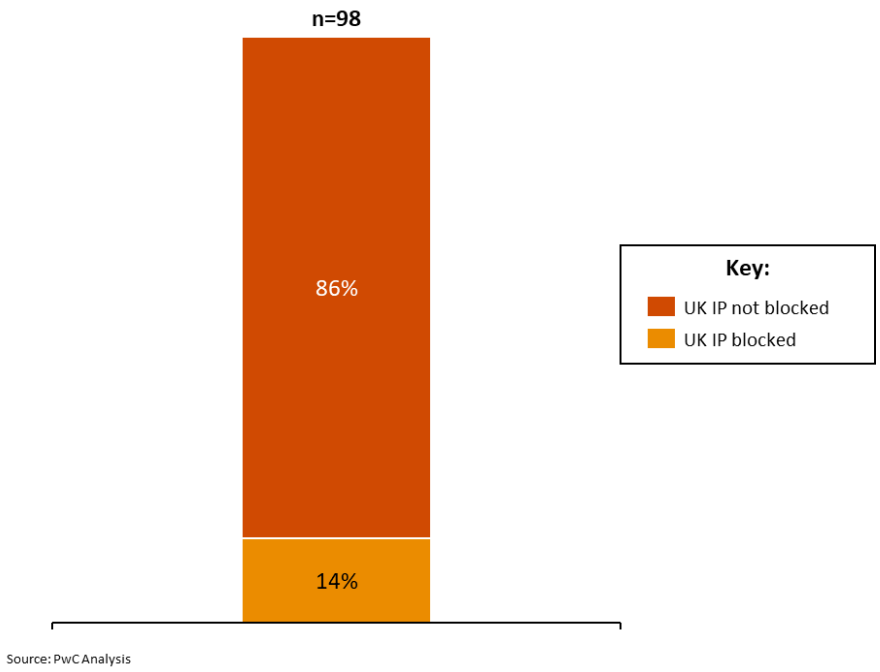
Accessibility of unlicensed operators

Overall, 86% (84 sites) of the unlicensed operator sites we identified were accessible from UK IP addresses (see Figure 5.15). The proportion was slightly lower for gaming key words (83%) than betting key words (87%) respectively). The proportion of accessible sites has increased from 72% (165 sites) compared to our analysis conducted in 2018.

In addition to unlicensed sites we also identified:

- c.3% of gambling operators identified were non-UK licensed sites that redirected to UK licensed domains. The most frequent examples were websites redirecting to unibet.co.uk, fulltilt.uk and pokerstars.uk
- We found eleven international domains belonging to UK licensed operators which did not automatically redirect to UK registered domains. Since these international domains did not hold a UK remote gambling licence, they were categorised as unlicensed

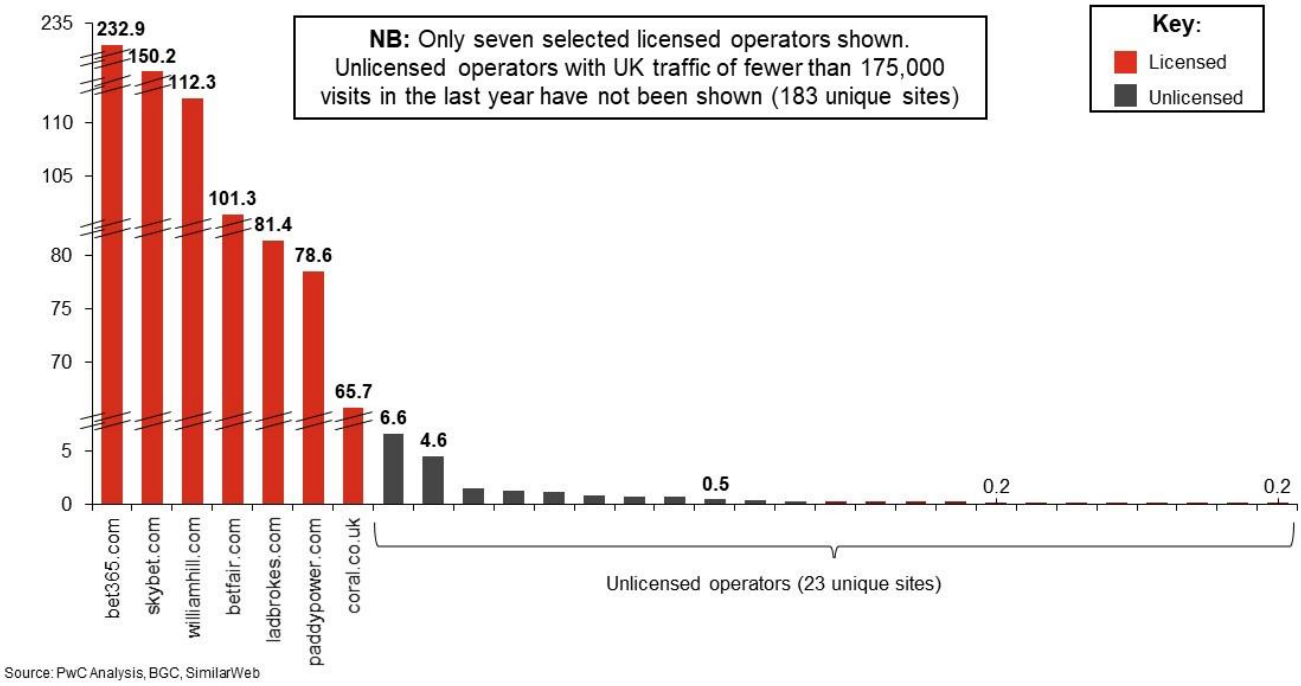
Figure 5.15 – Accessibility of unique unlicensed operator sites **(Nov. 2020)**



Web traffic to unlicensed operators

We have assessed web traffic to all unlicensed domains identified in our analysis[92]. We found that the traffic to major licensed sites is significantly higher than the traffic to even the largest unlicensed operator. For example, bet365.com had 35 times the annual traffic of the largest identified unlicensed operator. This is shown in Figure 5.16.

Figure 5.16 – Volume of visits (millions) from UK IP addresses to selected licensed and unlicensed operators, **(Nov. 2019 to Oct. 2020)**



Total traffic to unlicensed sites that we identified amounted to c.27 million visits in 12 months to November 2020. We also identified c.27m visits to unlicensed sites when we conducted our analysis in October 2018. Based on these c.27 m visits, we estimate that the operators that we have identified as unlicensed account for 2.4% of UK gambling web traffic (vs. 2.5% in 2018).

This estimate is based on the traffic data collected for 7 major UK operators shown in Figure 5.16. These operators have an estimated market share of UK online gambling of c.73%[93]. We have assumed that these operators' market share is representative of their share of web traffic in order to estimate total UK gambling web traffic.

We caveat that this result should be read with caution as it not a like-for-like comparison and may be driven by decline in the number of unlicensed operators identified via our marketing channel analysis (particularly within Google search results).

Web traffic to the eleven unlicensed operators included in both our 2018/19 and 2020 surveys increased by c.85% from Oct. 2018 to Nov. 2020[94].

In addition to traffic that we have identified, gamblers (especially high stakes players) may be accessing unlicensed operators using VPNs which we are not able to assess.

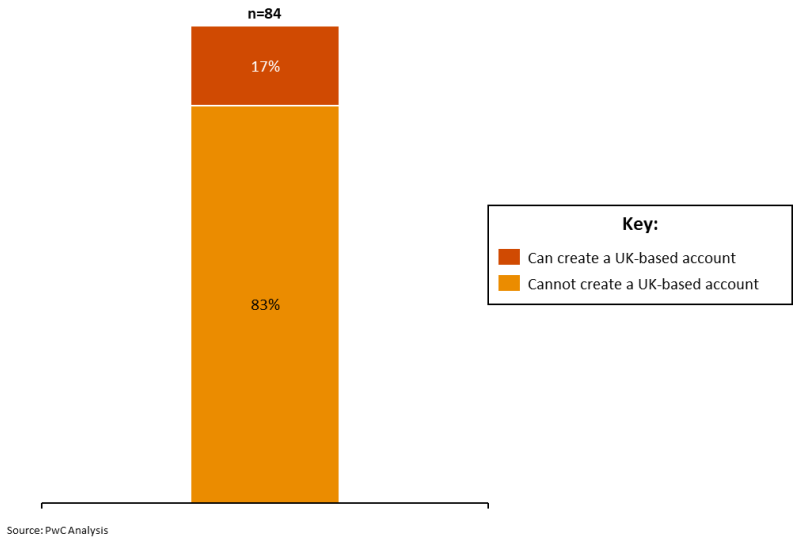
[92] **Note**: Including operators identified in our marketing channel analysis and those sites identified from the top gambling sites by web traffic
[93] **Source**: H2 Gambling Capital (2019)
[94] **Note:** Considering all 19 sites included in our 2018/19 traffic increased by c.15% as a number of these sites no longer exist

5.4. Account creation

In this section, we assess whether a UK gambler could create an account with one of the unlicensed operators identified[95].

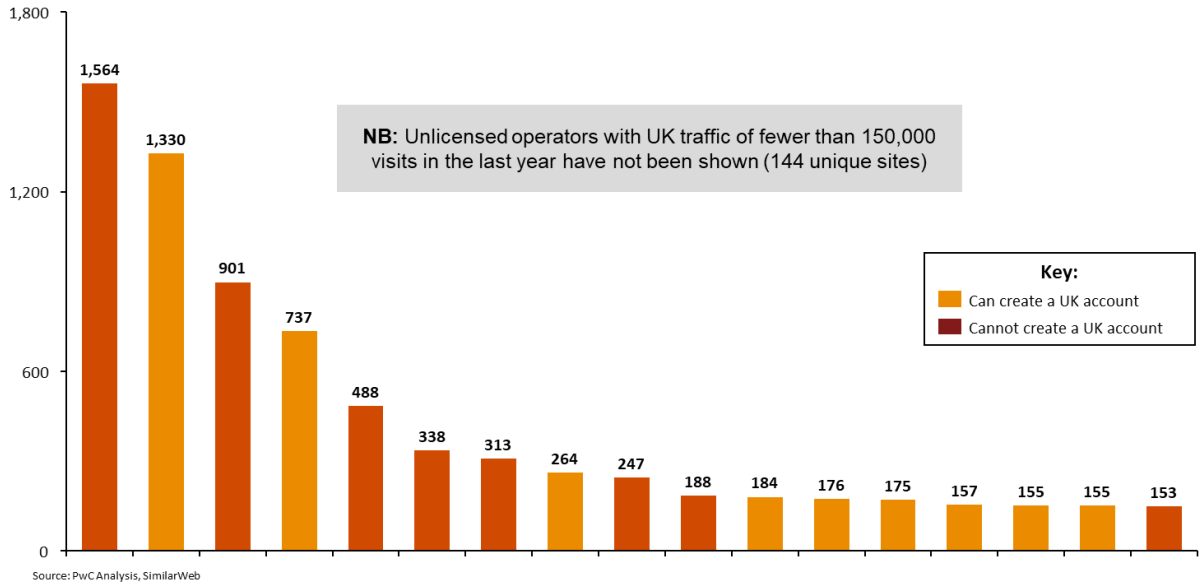
Of the unlicensed operators identified through our Google search results, 17% of sites (14 sites) accessible from UK IP addresses allowed accounts to be created from the UK (as shown in Figure 5.17). This result was broadly consistent across both betting (19%) and gaming (14%) key words.

Figure 5.17 – Number of unlicensed operators that allow UK accounts, by source **(Nov. 2020)**



Unlicensed operators with the highest web traffic from UK IP addresses included websites that did not allow accounts to be created from the UK – see Figure 5.18. This suggests that players are using non-UK addresses to create accounts on these websites.

Figure 5.18 – Number of visits (thousands) from UK IP addresses to selected unlicensed operators **(Nov. 2019 to Oct. 2020)**



[95] **Note**: We have tested the ability to create an account using a UK address and UK IP address

During the account creation process, we also tested whether users were required to verify if they were over 18 (e.g. input date of birth or click to confirm they were 18+) in order to create an account. Out of the 14 unlicensed websites which allowed account creation, only 1 site did not require users to input their age[96].

Of the 14 sites that we were able to create accounts with, we found that 6 sites (43%) accepted cryptocurrencies as payment.

5.5. Comparison vs. third-party analysis

As outlined in the methodology, William Hill also provided us with a list of operators they have identified – a total of 77 additional unlicensed operators. William Hill's approach was focused on specifically identifying unlicensed sites rather than assessing the sites which 'unsuspecting' users might be exposed to.

For the unlicensed operators that William Hill identified, the proportion of sites where an account can be created is significantly higher. Of the 40 sites identified by William Hill that we were able to create accounts with, we found that 30 sites (75%) accepted cryptocurrencies as payment (vs. 43% of sites identified by our analysis). We believe the difference in these results is due to William Hill focusing on specifically identifying unlicensed sites.

A comparison of the accessibility of sites identified by PwC vs. William Hill is presented below in Figure 5.19.

Figure 5.19 – Comparison of accessibility for PwC-identified unlicensed sites vs. third-party sites

Source: PwC analysis, William Hill analysis

	Identified by PwC	Identified by William Hill[97]
Number of unlicensed sites identified	98	77
UK IP address not blocked (Share of total unlicensed sites)	84 (86%)	56 (73%)
Can create account (Share of those accessible from UK IP address)	14 (17%)	40 (71%)
Can place bet (Share of those where account can be created from UK)	N/A[98]	19[99] (48%)

Of the combined unlicensed sites identified by PwC and William Hill, 17 of the top 20 by website traffic were identified by PwC's analysis.

William Hill's analysis also investigated the licensing location of the operators, finding that 64% of the sites that they identified were licensed in Curaçao.

5.6. Betting with unlicensed operators

This section analyses the overall usage of selected unlicensed operators on both a value and volume basis. It also explores alternative ways that gamblers can place bets / play games.

[96] **Note**: As noted in the Methodology overview (Chapter 4) we have not tested depositing funds or placing bets, and thus it is possible that the website asks for age verification at a later stage
[97] **Note**: As outlined in our methodology (Chapter 4) William Hill have tested accessibility to create account and ability to create account. Some of this testing was completed several months ago however, and we have therefore re-tested these. Further there are an additional three unlicensed operators identified by BGC and other of its members not shown here
[98] **Note**: Not tested in this work
[99] **Note**: When testing was completed by Willian Hill bets were able to be placed with 22 operators, however, in our re-testing an ability to create account three of these operators now no longer accept UK account so have been excluded. Ability to place bets with the other 19 operators has not been re-tested by PwC

Usage of unlicensed operators

Our consumer survey found that 4.5% of online gamblers had used at least one of the listed unlicensed operators in the last 12 months. 66% of those that had used an unlicensed operator (3% of total respondents) had only used one of the listed unlicensed operators – see Figure 5.20.

Compared to the results of our 2018/19 survey, usage of unlicensed operators has significantly increased from 2.2% of respondents[100]. Furthermore, the average number of operators used has also slightly increased.

Usage of one or more of the eleven brands which were included in both our 2018/19 and 2020 surveys, doubled from 1.4% to 2.9% of respondents. This supports our overall finding that usage of unlicensed operators has significantly increased.

Figure 5.20 – Number of listed unlicensed operators used by respondents in the last 12 months **(Oct. 2018/ Mar. 2019 – n=3,463, Dec. 2020 – n=2,363)**

Source: PwC analysis

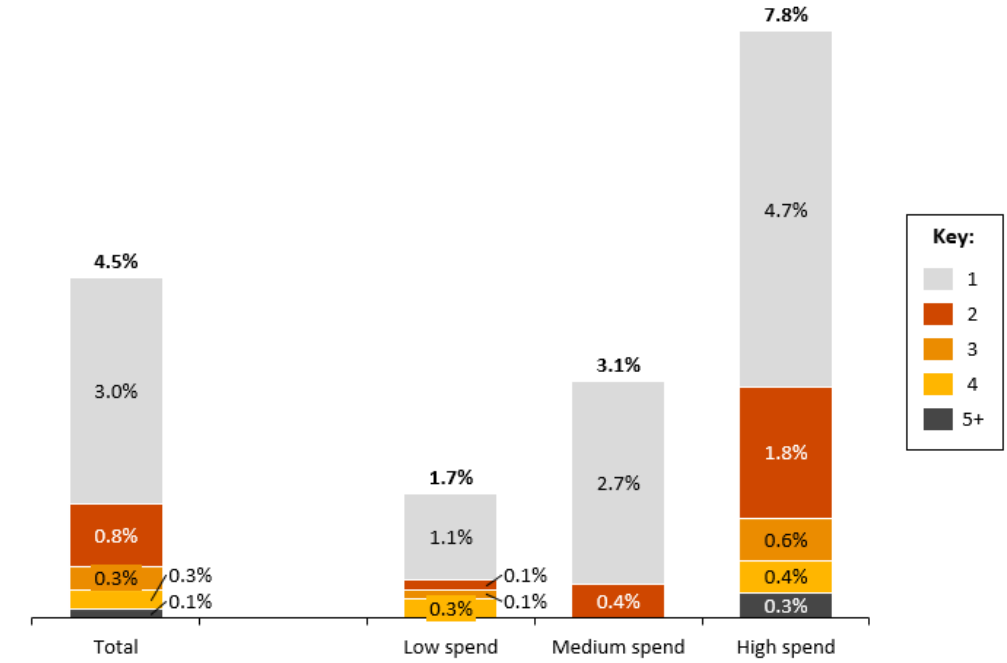
Number of operators	% of respondents, PwC survey 2018/19	% of respondents, PwC survey 2020
5+	0.1%	0.1%
4	0.0%	0.3%
3	0.1%	0.3%
2	0.3%	0.9%
1	1.8%	3.0%
Total	**2.2%**	**4.5%**
Average number of operators used	**1.4**	**1.6**

[100] **Note**: Observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. We have verified that our data supports increased usage of unlicensed operators at the 95% confidence interval (see Appendix)

Usage of unlicensed operators by gambling spend

High spending gamblers are significantly more likely to use unlicensed operators than low spending gamblers. 7.8% of high spenders indicated that they had used at least one listed unlicensed operator in the past 12 months versus 1.7% of low spenders – see Figure 5.21.

Figure 5.21 – % of respondents who used a listed unlicensed operator in the last 12 months, by gambling spend[101] **(Dec. 2020 – n=2,363)**



Source: PwC Analysis, PwC Survey Dec. 2020

Compared to our survey conducted in 2018/19, usage of unlicensed operators has increased significantly for gamblers with all levels of spend[102] – see Figure 5.22 below.

Figure 5.22 - % of usage of listed unlicensed operators by respondents in the last 12 months, by gambling spend[103] **(Oct. 2018/ Mar. 2019 – n=3,463, Dec. 2020 – n=2,363)**

Source: PwC analysis

Usage of 1+ operator	**Total**	Low spend	Medium spend	High spend
PwC survey 2018/2019	**2.2%**	0.2%	1.8%	4.5%
PwC survey 2020	**4.5%**	1.7%	3.1%	7.8%

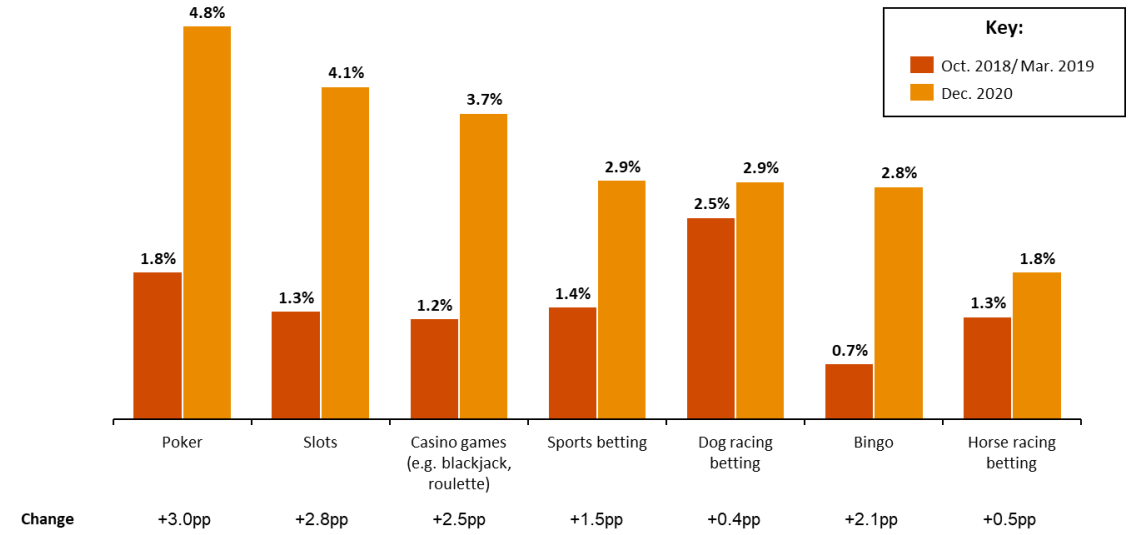
Usage of unlicensed operators by product

Based on our consumer survey, use of unlicensed operators varied across product verticals (1.8% - 4.8%), with usage significantly higher for poker (4.8%) or slots (4.1%).

[101] **Note**: Low spend: less than £25 total spend per month, Medium spend: £25-£75 total spend per month, High spend: more than £75 total spend per month
[102] **Note**: Observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. We have verified that our data supports increased usage of unlicensed operators at the 95% confidence interval (see Appendix)
[103] **Note**: Low spend: less than £25 total spend per month, Medium spend: £25-£75 total spend per month, High spend: more than £75 total spend per month

Compared to our 2018/19 survey, usage of unlicensed operators has increased for slots, casino, sports betting and bingo products[104] – this shown in Figure 5.23 below. Whilst usage of poker, dog and horse racing also appears to have increased this is not statistically significant at the 95% confidence level – see Appendix.

Figure 5.23 – Respondents who used at least one of the listed unlicensed operators for each type of bet/game in the last 12 months **(Oct. 2018/ Mar. 2019, Dec. 2020)** [105]



Source: PwC Analysis, PwC Survey Oct. 2018/ Mar. 2019, Dec. 2020

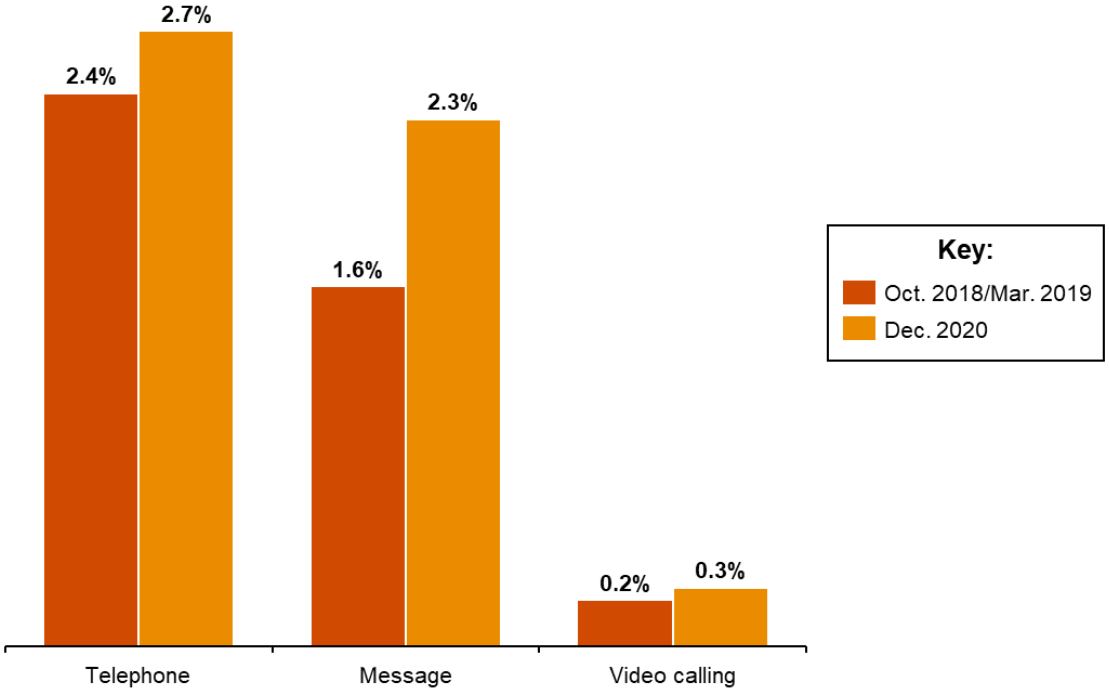
Alternative methods to place bets with unlicensed operators

We are also aware of the existence of betting agencies where agents will place bets in countries other than the UK on behalf of UK gamblers.

In our survey we found that 4.5% of the total respondents had placed a bet abroad through an agency or family/friend in the last year[106], with the most common method being via telephone - representing an increase of 0.8ppt since 2018/19. It is also worth noting that bets placed in this way can be very high value transactions and can be very difficult to track or enforce by gambling authorities.

[104] **Note**: Observed results from our consumer survey. We note that there is an inherent degree of uncertainty in any results that are a sample of an overall population. We have verified that our data supports increased usage of unlicensed operators for these product verticals at the 95% confidence interval (see Appendix)
[105] **Note**: Observed results from our consumer survey. We note that the observed increase in usage in poker, dog and horse racing is not statistically significant at the 95% confidence level (see Appendix)
[106] **Note**: Some respondents placed a bet in a country other than the UK by one more than one method and thus the sum of the three channels is greater than 4.5%.

Figure 5.24 – Proportion of respondents who have asked someone else (including friends/family) in the last 12 months to place bets on their behalf in a country other than the UK, by channel **(Dec. 2020)**



Source: PwC Analysis, PwC Survey Dec 2020

Spend with unlicensed operators

Our survey found that 2.3% of total gambling spend was with one of the listed unlicensed operators. This is a significant increase from our finding of 1.2% in 2018/19. In addition to the reasons highlighted in our Methodology (Chapter 4.7) we believe there are reasons to interpret our spend estimate as a conservative estimate of 'true' unlicensed spend for several reasons:

- **Reported average spend:** Monthly spend levels per gambler reported in our survey are lower than implied by UK Gambling Commission market data, by a factor of 5. This suggests that:
  - Gamblers may be underreporting their gambling spend, either purposefully or accidentally
  - Our survey has not sufficiently captured very high spending gamblers who account for a significant proportion of gambling spend
  - We believe both these issues are inherent problems when surveying gamblers and asking about spend
- **Market share of major operators:** H2 Gambling Capital estimates that the seven largest operators account for 73% of the UK gambling market, while our survey finds them to be 90% of total spend. This suggest that our sample has a bias towards gamblers who spend a large portion of their monthly gambling spend with the large licensed operators who are likely to be more casual gamblers

Spend with unlicensed operators by gambling spend

The proportion of gambling spend with unlicensed operators varies significantly between higher and lower stakers. Figure 5.25 shows that 2.5% of high spending gamblers' spend was with unlicensed operators, whilst for low spending gamblers only 0.6% of spend was with unlicensed operators.

Figure 5.25 – % spend on unlicensed operators by gambling spend in the last 12 months, by gambling spend [107] **(Oct. 2018/ Mar. 2019 – n=3,463, Dec. 2020 – n=2,363)**

Source: PwC analysis

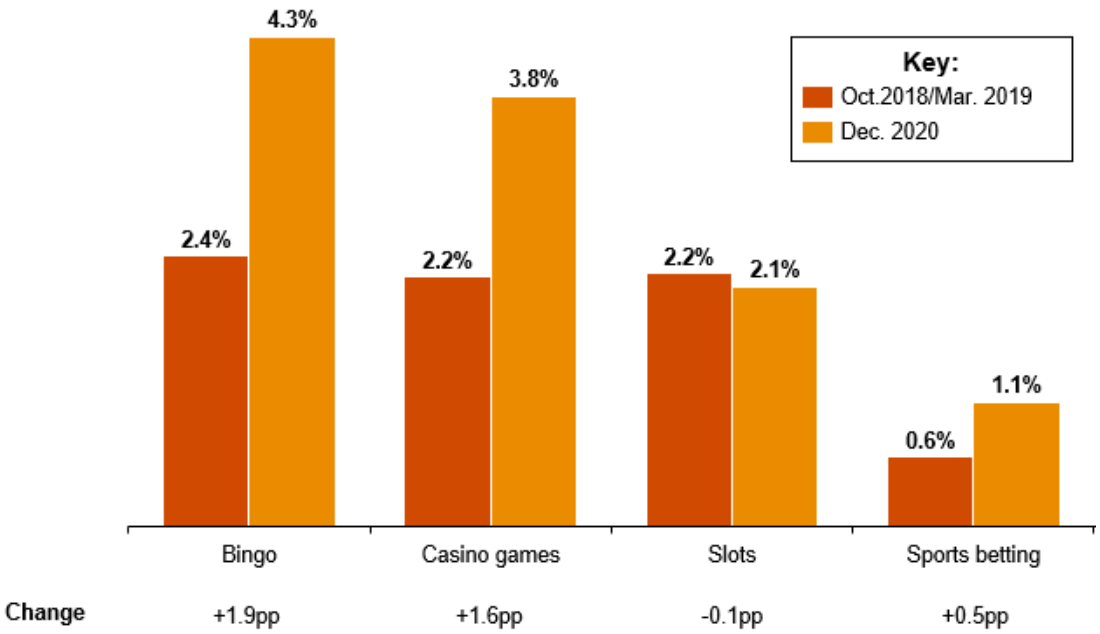
	Total	Low spend	Medium spend	High spend
PwC survey 2018/2019	**1.2%**	0.1%	0.4%	1.4%
PwC survey 2020	**2.3%**	0.6%	0.7%	2.5%

Compared to our results from 2018/19, the increase in unlicensed operator spend has been driven primarily by highest spending gamblers (increasing from 1.4% to 2.5%). However, share of spend with unlicensed operators has increased across all high, medium, and low spenders.

Spend with unlicensed operators by product vertical

The share of spend with unlicensed operators varies significantly by product vertical. Our results show that the share of spend with unlicensed operators has increased across all product categories except for slots in the last 1-2 years, with bingo and casino games seeing the largest increases. We note that these results for share of spend by product vertical should be treated cautiously due to the relatively small sample size.

Figure 5.26 – Proportion of total spend on each type of bet/game reported as being with one of the listed unlicensed operators **(Dec. 2020)**[108]



Source: PwC Analysis, PwC Survey Dec 2020

[107] **Note**: Low spend: less than £25 total spend per month, Medium spend: £25-£75 total spend per month, High spend: more than £75 total spend per month

[108] **Note:** There is insufficient n across spend categories for poker, dog racing, and horse racing to have sufficient confidence in these results

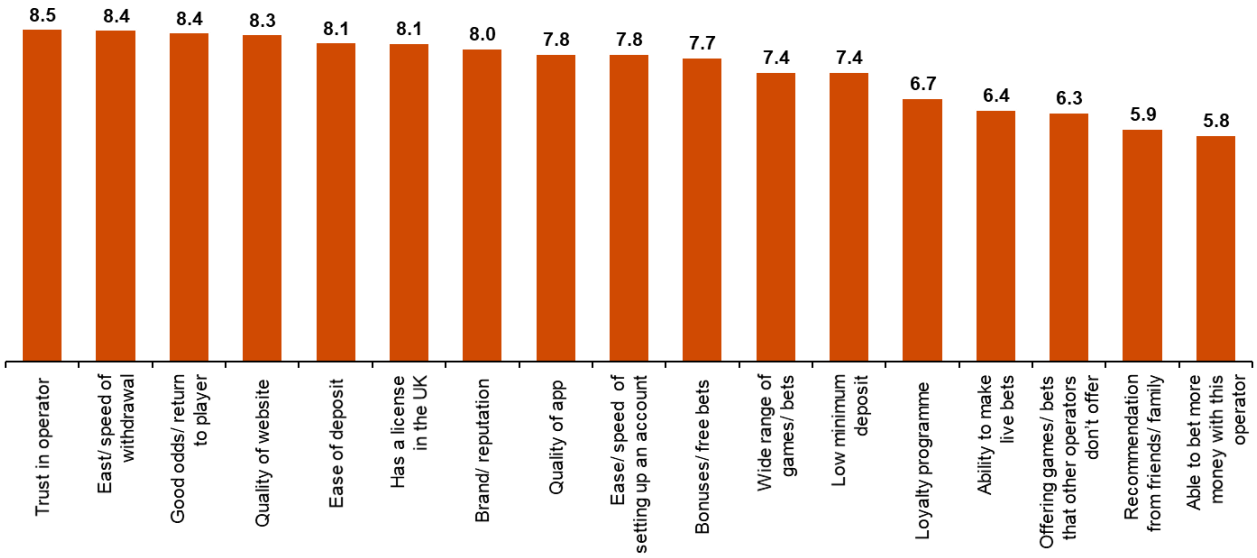
5.7. Motivations for using unlicensed operators

This section looks at why gamblers choose to use unlicensed operators rather than their licensed counterparts. We examine both what is currently driving punters' usage of unlicensed operators and how this may be impacted by potential changes.

Criteria for selecting an operator

Our survey found that "*Trust in operator*", "*Ease/ speed of withdrawal*", "*Good odds/ return to player*", and "*Quality of website*" were the four most important criteria for selecting an operator. The top four selection criteria were the same for those who had and had not used an unlicensed operator in the last 12 months. They are also consistent with those identified in our 2018/19 survey.

Figure 5.27 – "How important are the following reasons, when deciding which online operator to use (where 10 is very important and 1 is unimportant)?" **(Dec. 2020 – n=2,363)**



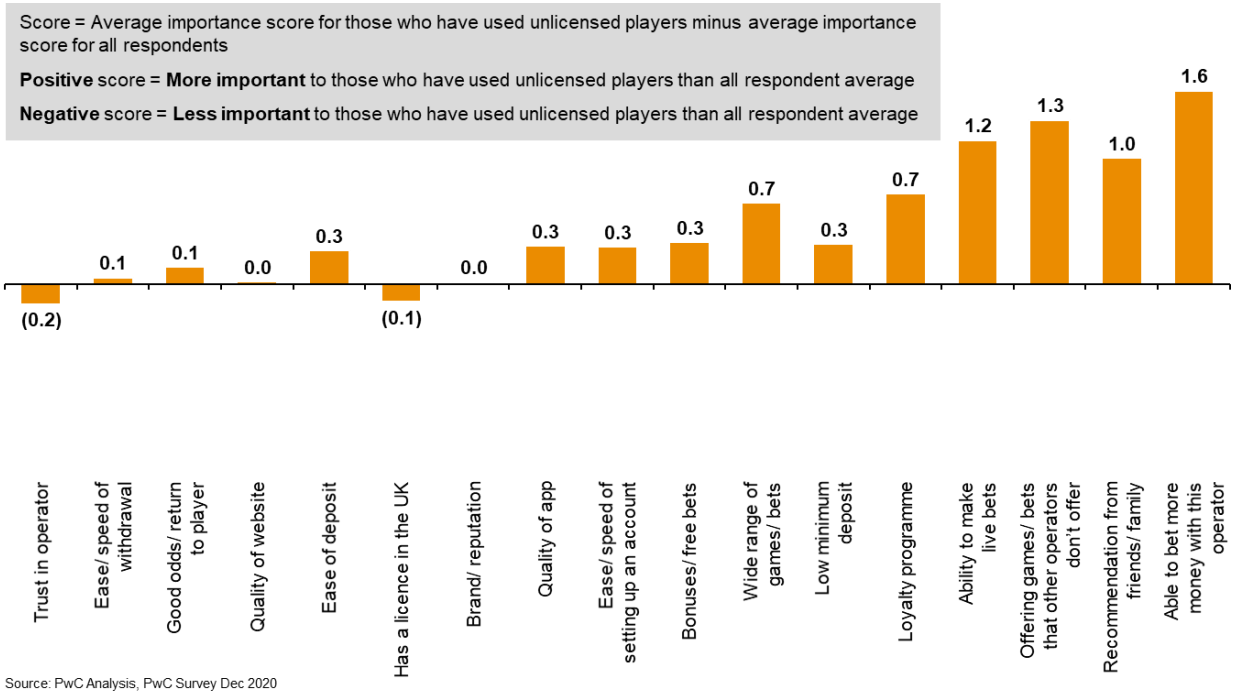
Source: PwC Analysis, PwC Survey Dec 2020

Criteria for selecting operators – users of unlicensed sites

The major differences in operator selection criteria for users of unlicensed operators versus non-users (as shown in Figure 5.28) were:

- **Ability to place larger wagers**: the selection criteria with the greatest positive variation in importance (for those who had used an unlicensed operator versus those who had not) was the ability to bet more money with this operator. This is consistent with our findings in 2018/19 and suggests that VIP gamblers are more likely to consider using an unlicensed provider
- **Range of games/ bets on offer**: several of the selection criteria rated least important by all respondents were deemed to be significantly more important by those who used unlicensed operators. This includes having games/ bets that other operators do not, allowing live bets, and having a wide range of games/ bets. This is consistent with our findings in 2018/19 and suggests that those using unlicensed providers may be trying to access niche games/ bets or a wider range of games/ bets
- **Loyalty programmes**: loyalty schemes were significantly more important in selecting an operator for those who had used unlicensed operators.

Figure 5.28 – Difference in importance of key selection criteria for respondents who have used an unlicensed operator in last 12 months versus all respondents **(Dec. 2020 – n=2,363)**

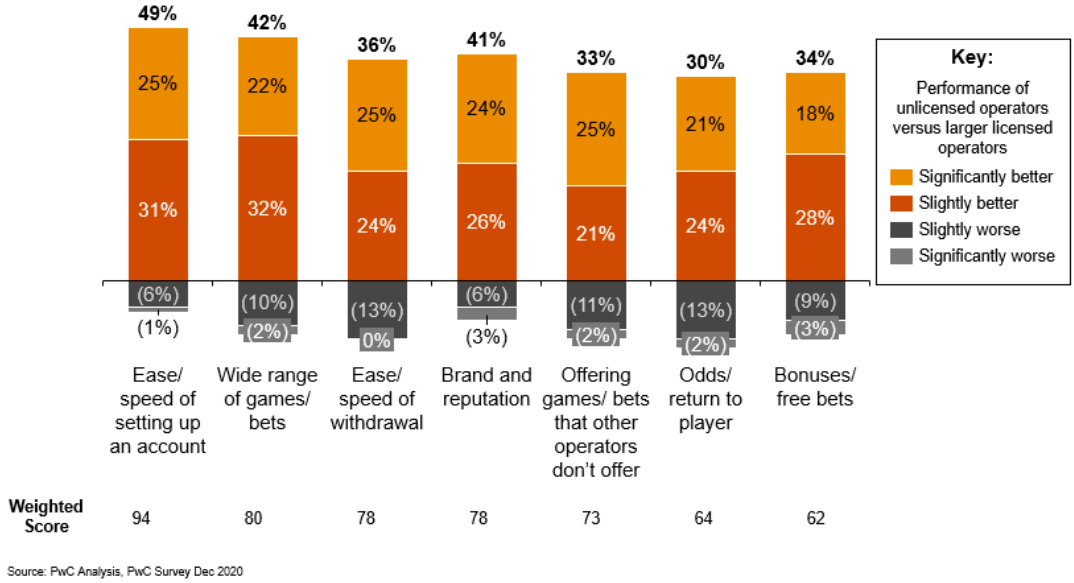


Source: PwC Analysis, PwC Survey Dec 2020

Unlicensed operator performance

As well as asking consumers what the most important criteria were for selecting an operator, we also explored the relative performance of unlicensed vs. licensed operators. The results (shown below in Figure 5.29) show that unlicensed operators outperformed licensed operators across all the categories. Unlicensed operators performed particularly strongly on "*Ease/ speed of setting up an account*".

Figure 5.29 – When thinking about the following key purchase criteria, how do the following operators compare versus larger well-known operators such as William Hill, Ladbrokes, Paddy Power, Betfair, SkyBet, and Bet365?[109] **(Dec. 2020 – n=2,363)**



Impact of potential market changes on operator selection

In our survey we also investigated how a number of potential changes might impact whether online gamblers might look for new operators, including: changes in pay-out rate, requirements for further customer diligence (e.g. providing ID), limits on spend or the number or type of games/ bets available, and requirements to take a problem gambling survey about a loss-threshold.

Reduced odds/ pay-out rate of games/ bets was the most likely to lead to online gamblers looking for new gambling operators – 53% of respondents stated that this would lead to them looking for alternative operators.

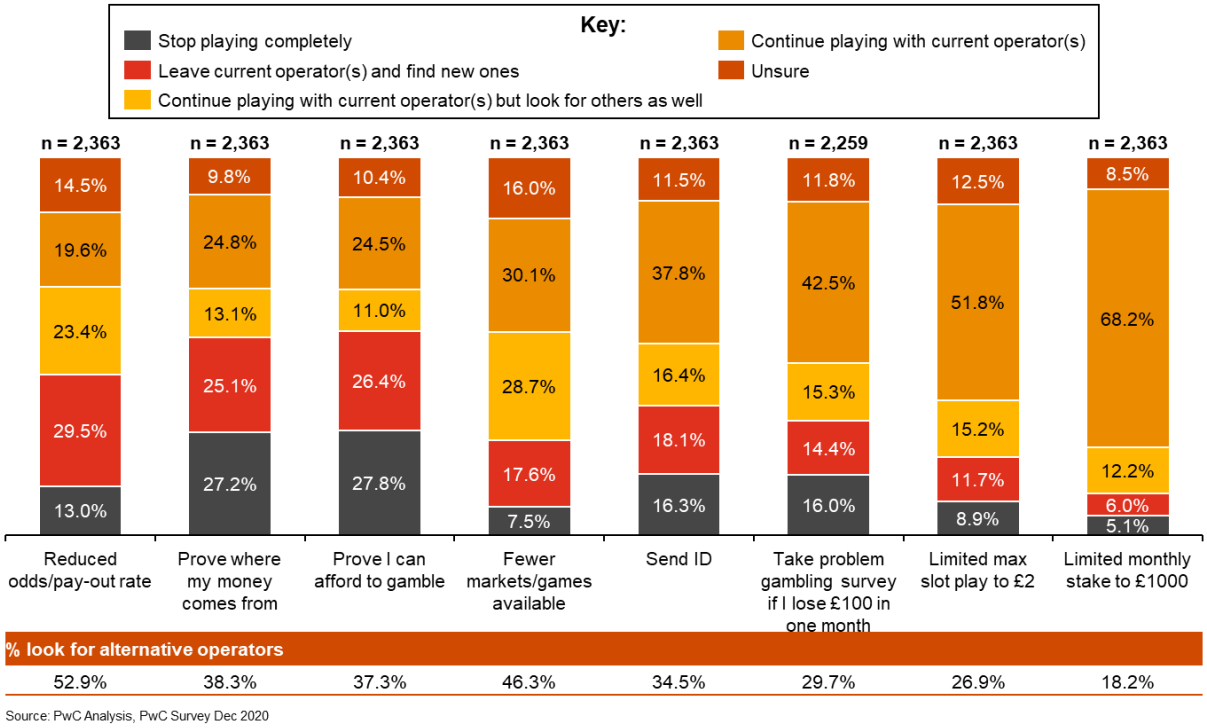
Changes requiring provision of personal information (to prove identity or affordability), were also likely to lead to a significant proportion of gamblers (over 30%) to look for new operators. This is in the context of unlicensed operators performing significantly better on ease of setting up an account (see Figure 5.29).

Changes where consumers are least likely to look for new operators included monthly staking limits and slot spin limits (with only 18% and 27% respectively likely to consider looking for new operators).

Of the respondents that stated they would consider switching operators (due to any of the potential changes), c.75% stated that they were likely to use either online channels or family and friends to identify new operators. The preferred channel was online search engines where 'unsuspecting' gamblers are more likely to be exposed to unlicensed operators (as shown in our consumer marketing channels analysis) or they may more actively search for unlicensed operators.

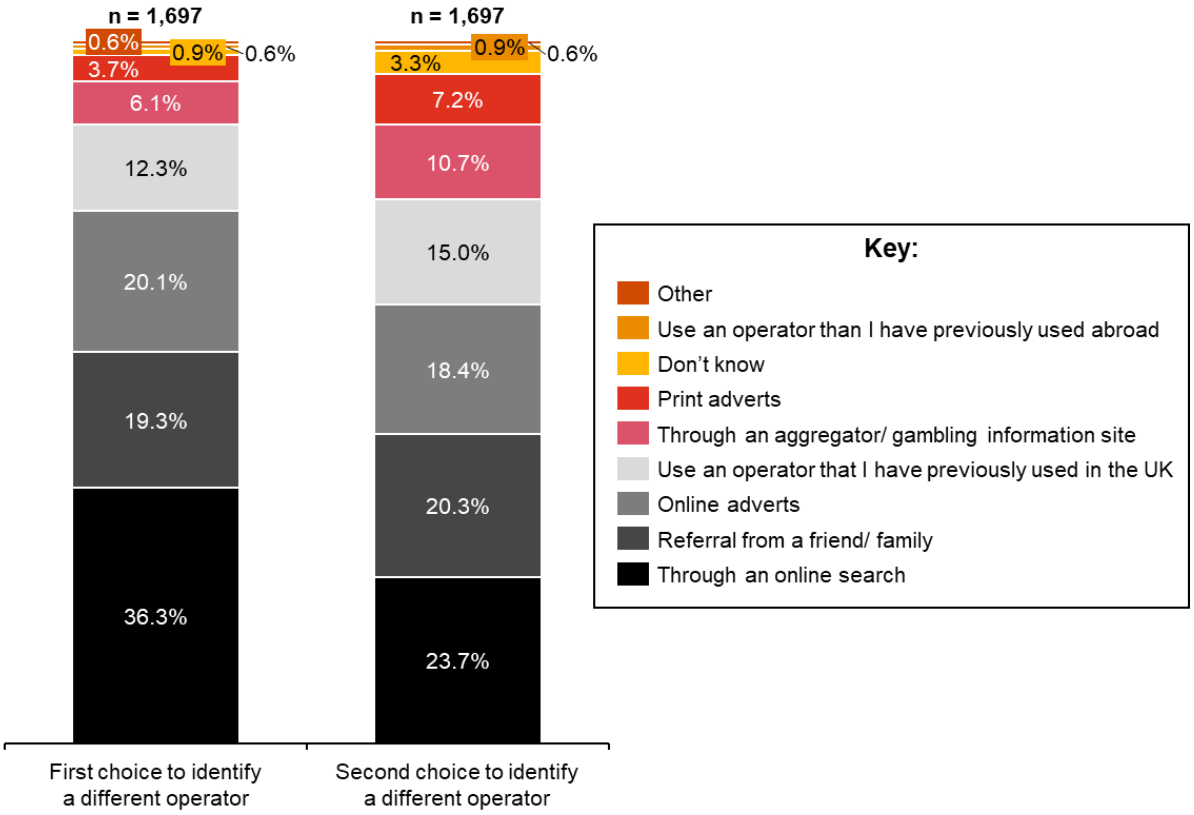
[109] **Note**: Weighted score calculated by scoring responses as follows: "Significantly worse" = -2, "Slightly worse" = -1, "No difference" = 0, "Slightly better" = +1, "Significantly better" = +2.

Figure 5.30 – Factors which lead respondents to consider using a different gambling operator (beyond which they currently use) **(Dec. 2020)**



Source: PwC Analysis, PwC Survey Dec 2020

Figure 5.31 – Methods respondents would use to identify a different operator to bet/gamble with **(Dec. 2020)**



Source: PwC Analysis, PwC Survey Dec 2020

6. UK unlicensed online gambling market in context

In this chapter, we provide a high-level explanation of the key regulatory and licensing characteristics that can impact the size of the unlicensed market and place our findings for the UK unlicensed online share of the total gambling market in the context of certain European jurisdictions.

Factors impacting unlicensed market share

Regulatory and licensing conditions in an online gambling market are important drivers of the propensity for operators and consumers to participate in the unlicensed market. For the key factors, we outline the role / objective within the regulatory regime as well as potential impact on the unlicensed market in Figure 6.1 below.

Figure 6.1 – Regulatory and licensing characteristics potentially impacting unlicensed market share

Characteristic	Role/ objective within regulatory regime	Potential impact on scale of unlicensed market
Effective rate of taxation	• Generate tax revenue from gambling whilst ensuring the jurisdiction remains competitive for operators	• Higher tax rates typically result in lower odds / return-to-player – making licensed operators less competitive than unlicensed alternatives
Product verticals permitted (e.g. casino and in-play)	• Allowing a broad range of products allows licensed operators to provide an offering that meets consumer demands and is competitive vs. unlicensed alternatives	• If a punter's game of choice is not permitted, they may instead look to play it via unlicensed providers
Licence availability	• Broad range of licensed operators creates competition and consumer choice • Rigorous licensing process ensures that only established/ liquid operators obtain a licence	• Limiting licences can lead to a lack of product innovation and an uncompetitive licensed offering, and punters may look for unlicensed alternatives • Complex licensing processes can deter operators from choosing to obtain a licence in the jurisdiction
Stake/ Deposit/ Loss limits	• Limits can protect players from substantial losses and potentially reduce the rate of problematic play	• If gamblers are restricted in play, they may seek out alternative forms of gambling including unlicensed operators
Advertising rules	• Restrictions can reduce the exposure of minors/non-gamblers to gambling product and mitigate problem gambling	• Ad restrictions can lessen consumers' awareness of licensed operators • Gamblers may be more reliant on online search where unlicensed operators are more prevalent[110] • May be harder for gamblers to determine if an operator is licensed
Customer due diligence & affordability checks	• Requirements can be used to increase player protection, tackle problem gambling and reduce the risk of money laundering	• Due diligence and required evidence (e.g. bank statements, pay slips) may create friction for using a licensed operator

[110] **Note**: As shown in our marketing channel analysis

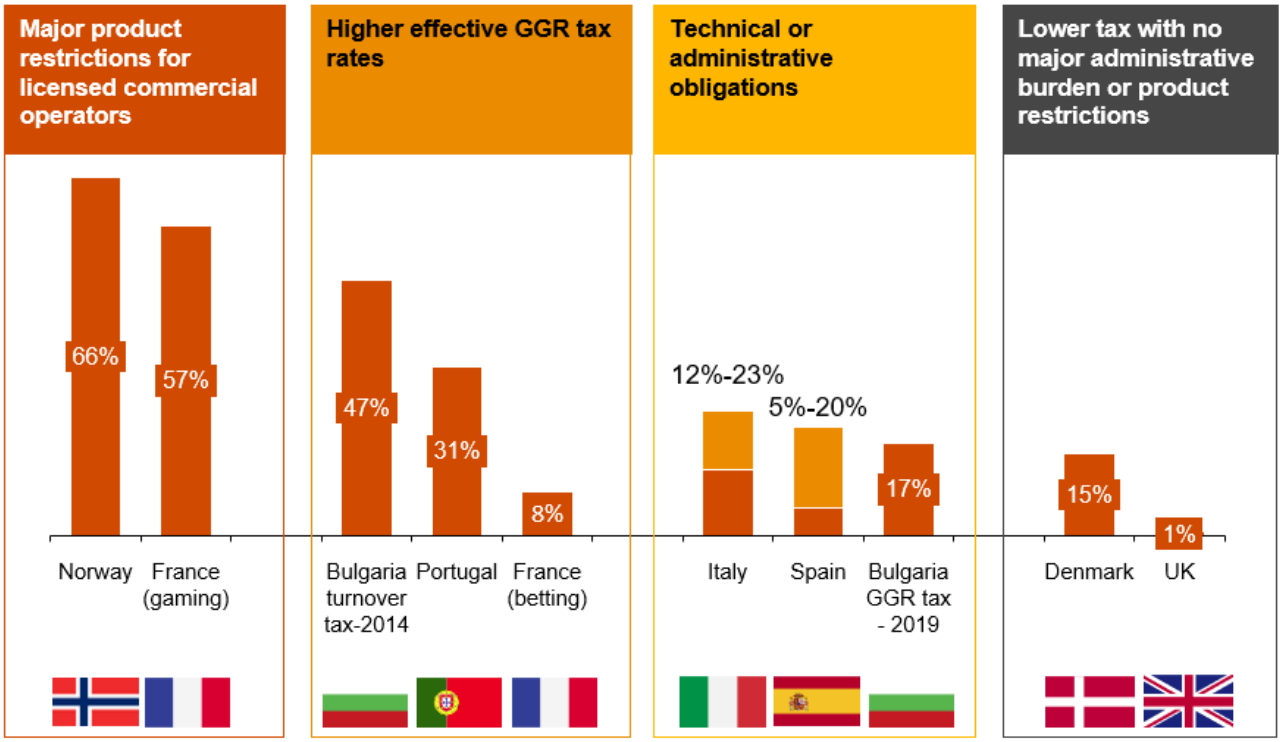
		• May drive unlicensed spend if high staking gamblers seek a smoother process with 'fewer questions asked'
Website blocking	• Reduces access to unlicensed operator websites • Helps to educate gamblers about the licensing status of an operator	• Website blocking can prevent unsuspecting punters from accessing unlicensed sites • More serious gamblers (typically higher staking players) may use VPNs to circumvent limiting effectiveness
Payment blocking (of unlicensed operators)	• Reduces ability to place bets with unlicensed operators	• Payment blocking[111] can be effective at deterring operators / casual gamblers • Can be circumvented by unlicensed operators / serious gamblers (by not declaring that they are a gambling operator or using other payment transfer mechanisms) limiting effectiveness
Other characteristics	• E.g. licensing requirements, levels of bureaucracy, levels of political certainty, operators withdrawing	• Other characteristics (e.g. challenging licensing requirements, high uncertainty) may lead to operators not serving markets with a licence • Requirements may create 'frictions' and result in consumers looking for unlicensed alternatives

[111] **Note:** Usually through requiring banks to block payments to certain providers

UK unlicensed online share in international context

As outlined in previous chapters, this study has estimated UK unlicensed online gambling accounts for 2.2% of online gambling spend based on the results of our consumer survey. For comparison, we outline below offshore GGR share for interactive gambling in seven European jurisdictions. The estimates presented here are based on H2GC's estimate of offshore operator share as well as additional 3rd party reports (as available).

Figure 6.2 – Interactive offshore GGR share by country **(2019)**[112,113]



Source: European Commission, H2 Gambling Capital, PwC Survey 2020

These jurisdictions were selected to cover a spectrum of regulatory approaches which we have grouped into four broad categories as below. We have outlined the key regulatory restrictions in each jurisdiction, although we note that for the purposes of this work, we have not conducted a full analysis of the differences in regulatory regimes between jurisdictions:

- **Major product restrictions for licensed commercial operators**:
  - **France (gaming)**: Online casino is prohibited, with only Poker and Bingo permitted
  - **Norway**: Only the state monopoly is able to provide online betting and casino
- **High effective rates of tax**:
  - **Bulgaria**: When online gambling was first regulated in 2014, a 15% turnover tax was initially implemented (equivalent to c.75% of GGR[114]). This was replaced with a 20% GGR tax in 2015
  - **Portugal**: Levies taxes on some gambling products based on turnover (e.g. fixed-odds sports betting taxed at 8% of turnover). This results in a high effective rate of tax (equivalent to c.40% of GGR[114])

[112] **Note**: Unlicensed market estimates shown are based on the following sources: France, Norway, Portugal, Bulgaria and Denmark H2 Gambling Capital (2019); Spain & Italy range shown represents variation between H2 Gambling Capital (2019) and European Commission Sports Betting Report (2015/17); UK based on PwC estimate from survey of online gamblers (2020). We note that our estimates of unlicensed spend in other jurisdictions are based on 3rd party sources only and that in some jurisdictions (e.g. Spain), there are a wide range of estimates that are difficult to reconcile

[113] **Note**: When Bulgaria first regulated in 2014 operators were taxed on a turnover basis, which was changed to a GGR tax in 2015. We have shown the offshore share in 2014 for reference purposes

[114] **Note**: Assuming a return-to-player of 80%. Equivalent GGR rate will vary significantly based on return-to-player

- **France (betting)**: Licensed online gambling was taxed at c.9-15% of turnover until 2020 (equivalent to c.45-75% of GGR[114]). This was replaced with a GGR tax, although tax rates remain high (40% of GGR for online Poker and 52% for online betting)[115]

- **More onerous technical or administrative obligations**:
  - **Italy**: Licences are only awarded during specific tender periods and only valid for a limited time. Advertising gambling products is not permitted, and operators' systems are required to be connected to the regulator's system
  - **Spain**: Licences are only awarded during specific tender periods and only valid for a limited time[116]
  - **Bulgaria**: Restrictions on permitted advertising for gambling products
- **Lower tax with no major administrative burden or product restrictions**:
  - **Denmark**: No major product restrictions or technical requirements. Large number of operators serve consumers creating a competitive licensed market[117]
  - **UK**: No major product restrictions or technical requirements. Large number of operators serve consumers creating a competitive licensed market

This analysis suggests that the UK has a more 'open' online gambling market and currently has a smaller unlicensed market share than our European benchmarks – as shown in Figure 6.2.

Whilst it is not possible to isolate the impact of individual regulatory characteristics, the above assessment suggests that jurisdictions with a higher unlicensed market share tend to exhibit one or more restrictive regulatory or licensing characteristics. These create more 'frictions' between gamblers and licensed operators or make it more difficult for operators to compete (either financially through additional costs, or by restricting certain products or advertising).

[115] **Source:** "France Revamps Gambling Tax For 2020", tax-news.com (Jan. 2020); "France Country Report", Gambling Compliance (Oct. 2020)
[116] **Note**: In 2020, Spain introduced advertising restrictions including prohibiting print advertising and limiting advertising on television, radio, and video platforms (e.g. YouTube) to between the hours of 1AM and 5AM. Data for offshore share is based on 2019 so these restrictions are not considered here; **Source**: "Spain Country Report", Gambling Compliance (Nov. 2020)
[117] **Note**: In 2020, Denmark introduced deposit limits, and bonusing restrictions (see below for further detail). However, the data shown is from 2019 so these restrictions are not considered here; **Source**: "Denmark Country Report", Gambling Compliance (Dec. 2020)

Examples of the impact of regulatory change on unlicensed market share

When drawing parallels across gambling jurisdictions, it is difficult to isolate individual market characteristics and measure the impact of each on the size of the unlicensed market. Each jurisdiction's regime typically varies in multiple ways from another and the size of unlicensed market may also be impacted by country specific macro-economic and socio-economic factors (e.g. income per capita, level of corruption).

As such, we have outlined several examples of where regulatory change has impacted the share of the unlicensed market – see Figure 6.3 below.

Figure 6.3 – Recent regulatory change in selected European jurisdictions

Source: Desktop Research, Gambling Compliance

Jurisdiction	Regulatory change	Impact on gambling market and unlicensed market
Denmark	• Since Jan 2020, players have been required to set deposit limits on online accounts • Restrictions limiting operators' ability to offer bonuses (e.g. by not allowing a customer inactivity to be a factor in awarding bonuses) since Jan 2020 • Increase in tax rate from 20% to 28% of GGR is scheduled to take effect from Jan 2021	• Analysis from the Danish Tax Authority estimates that these changes will lead to a 9ppts increase in the 'black market' share[118] • The Danish gambling industry association (Spillebranchen) said it also anticipated a 9ppts increase in 'black market' share[118]
Sweden	A number of temporary COVID-induced regulations introduced in July 2020 (expected to remain in place until Jan 2021) including[119]: • Limiting bonuses to SEK100 (c.€10)[120] • Limiting weekly deposits to SEK5,000 (c.€500) • Obliging that players set play time limits • A gambling self-exclusion scheme (Spelpaus) was launch in 2019[121]	• Former monopoly operator Svenska Spel recently conducted a survey of players that hit new weekly deposit limits – One third of consumers that hit the new temporary deposit limits are avoiding the limit by spending on other sites[122] • When consumers spread their spend, it limits operators' ability to get a broad view of their activity and make necessary interventions – When looking for additional operators to play with consumers may be exposed to (or look for) unlicensed operators • A national survey found that 38% of consumers that had self-excluded reported having still gambled online – This suggests that consumers use unlicensed operators to circumvent player protection measures such as self-exclusion[123]

[118] **Note:** Spillebanchen estimate the current unlicensed market share is 10-12%; **Source:** "Denmark Readies Gambling Tax Hike", Gambling Compliance (Oct. 2020)
[119] **Note**: A government proposal is currently being debated that could extend these limits until July 2021
[120] **Note**: 100SEK per bonus and operator may not offer or provide bonus offers beyond the first occasion on which the player participates in a game
[121] **Source**: "Sweden Country Report", Gambling Compliance (Jan. 2021)
[122] **Source**: "Swedish Survey Suggests Problem Gamblers Dodging Government Limits", Gambling Compliance (Nov. 2020)
[123] **Note**: It is a licence condition that regulated operators integrate with Spelpaus and offer consumers the ability to self-exclude. Operators must check Spelpaus before registering a player and every time a player logs into a gambling system. **Source**: "Sweden Country Report", Gambling Compliance (Jan. 2021)

7. Glossary

Figure 7.1 - Glossary

Term	Explanation
Affiliate	Gambling affiliates promote operators' sites and receive a commission from a gambling operator for the referred customer
AML	Anti-money laundering. This refers to policies and pieces of legislation that oblige institutions to proactively monitor their clients in order to prevent money laundering and corruption – including source of funds checks
API	An API (application programming interface) is a software intermediary that allows two applications to communication information to each other. We have used a Google API that allows us to download Google search results without having to manually complete each search
Betting	Betting is a subcategory of gambling that relates to wagering conducted on the outcome of a sports or other event (e.g. horse racing, tennis, football etc.)
BGC	Betting and Gaming Council
CAGR	Compound annual growth rate. The year-on-year percentage growth rate needed to achieve the required growth across the specified period
DCMS	Department for Digital, Culture, Media and Sports
Domain	A website's domain is its root presence on the internet. i.e. www.gamblingcommission.gov.uk rather than www.gamblingcommission.gov.uk/home
Gambling	Gambling is the wagering of money on an event with an uncertain outcome. This includes betting, gaming, and lottery
Gaming	Gaming is a subcategory of gambling that relates to wagering conducted on table games and slots
GGR	Gross gambling revenue is stakes wagered by customers less winnings or prizes paid to customers
Organic search results	This related the results on an online search engine (e.g. Google) which appears as a result of the underlying search engine algorithm and not as a result of advertising placements (i.e. it excludes the pay-per-click results)
UKGC	UK Gambling Commission
VPN	A virtual private network (VPN) is a technology that creates a safe and encrypted connection over a less secure network, such as the internet. These can be used to make consumers appear to be located in other countries

8. Appendix

Google and mobile app store key words

To select appropriate key words within each gambling vertical, we assessed relative number of searches using Google Trends[124]. For example, to select key words covering football betting we looked at the relative number of searches for “football bet”, “football betting”, “football odds”, “football betting sites” and “online football betting”. This allowed us to select the most frequently used key words for each gambling vertical[125].

Figure 8.1 - Google key words

Sports betting (24 search terms)	Casino (23 search terms)
Online betting	Online casino
Sports bet	Online slots
Sports betting	Slots
Sports odds	Table games
Football bet	Poker
Football betting	21
Football odds	Blackjack
Horse racing bet	Craps
Horse racing betting	Baccarat
Horse racing odds	Roulette
Tennis bet	Bingo
Tennis betting	Live table games
Tennis odds	Live poker
Virtual sports bet	Live blackjack
Virtual sports betting	Live craps
Virtual sports odds	Live baccarat
Dog racing bet	Live roulette
Dog racing betting	Live bingo
Dog racing odds	Virtual casino
In play betting	Internet casino
In play sports betting	Online slots machines
In play football betting	Fruit machines
In play horse racing betting	Slot games
In play tennis betting	

[124] **Source**: trends.google.com (November 2020)
[125] **Note**: This exercise to select the terms was undertaken in our 2018 analysis. To maximise consistency, we have used the same key words in our 2020 work and verified that these terms were still the most relevant in terms of volume of searches

Figure 8.2 – Mobile app store key words

Sports betting (5 search terms)	Casino (4 search terms)
Sports betting	Real money casino
Horse racing betting	Real money slots
Football betting	Real money bingo
Tennis betting	Real money poker
Virtual sports betting	

Confidence intervals for key survey results

Figure 8.3 – Confidence intervals for key survey results

Source: PwC analysis

		2018/19				2020			
		Sample size	Observed result	95% confidence interval		Sample size	Observed result	95% confidence interval	
Prevalence on Google	**Total searches**	**8,826**	**9.2%**	**8.6%**	**9.8%**	**9,313**	**5.3%**	**4.8%**	**5.7%**
	Unique sites	1,963	11.7%	10.2%	13.1%	1,782	5.5%	4.4%	6.6%
Awareness	**Total**	**3,463**	**47%**	**45%**	**49%**	**2,363**	**44%**	**42%**	**46%**
	Low spenders	1,260	39%	36.3%	41.7%	767	32%	29%	35%
	Medium spenders	1,030	47%	44.0%	50.1%	667	42%	38%	46%
	High spenders	1,173	56%	53.2%	58.8%	909	57%	54%	60%
Usage	**Total**	**3,463**	**2.2%**	**1.7%**	**2.7%**	**2,363**	**4.5%**	**3.7%**	**5.3%**
	Low spenders	1,260	0.2%	0.0%	0.5%	767	1.7%	0.8%	2.6%
	Medium spenders	1,030	1.8%	1.0%	2.6%	667	3.1%	1.8%	4.4%
	High spenders	1,173	4.5%	3.3%	5.7%	909	7.8%	6.1%	9.5%
	Poker	443	1.8%	0.6%	3.0%	436	4.8%	2.8%	6.8%
	Slots	1,132	1.3%	0.6%	2.0%	908	4.1%	2.8%	5.4%
	Casino games	974	1.2%	0.5%	1.9%	747	3.7%	2.4%	5.1%
	Sports betting	2,324	1.4%	0.9%	1.9%	1709	2.9%	2.1%	3.7%
	Dog racing betting	283	2.5%	0.7%	4.3%	206	2.9%	0.6%	5.2%
	Bingo	1,026	0.7%	0.2%	1.2%	702	2.8%	1.6%	4.1%
	Horse racing betting	1,827	1.3%	0.8%	1.8%	1164	1.8%	1.0%	2.6%

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