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# Gambling: Identifying international trends, approaches and responses

Prof. Aphra Kerr (MU)
Prof. John O'Brennan (MU)
Dr. Lucia Vazquez Mendoza (MU)

Maynooth University

Working Paper

# Gambling: Identifying international trends, approaches and responses


*Authors*
Prof. Aphra Kerr
Prof. John O'Brennan
Dr. Lucia Vazquez Mendoza


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## Acknowledgements

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# 1 Introduction

In late 2019 an academic research team based at Maynooth University's Department of Sociology and Maynooth Social Sciences Institute (MUSSI) including Prof. Aphra Kerr, Prof. John O' Brennan and Dr Lucia Vazquez-Mendoza began work on a one-year project to examine the knowledge base and evidence on the nature and extent of gambling and gambling impacts in Ireland and how Ireland compares to international peer countries.

The first stage of this project has involved desk research examining the international knowledge base on gambling and putting emerging trends in Ireland into an international perspective. This working paper provides an overview of the secondary academic research and publicly available data accessed to date in the project on gambling and its impacts on individuals and society.

## 1.1 Research Objectives

Our primary goals in producing this review of the evidence base are to contribute to key stakeholders' strategy decisions, provide a better understanding of the topic for policymakers and shape future research.

The key research objectives for the first phase of research were to:

1. Understand Gambling as a contemporary social behaviour and identify and collate publicly available data on the extent of gambling and the social impacts of gambling behaviour [Stage 1 and 2]
   (a) Identify academic literature on gambling internationally and in Ireland.
   (b) Evaluate the quality and reliability of gambling data.
   (c) Interrogate data on the prevalence and demographics of gambling and its impacts internationally and in Ireland.
2. Provide an outline of the Gambling industry and the Regulation and Policy Contexts in which it operates [Stage1 and 2]
   (a) Identify the key characteristics of the gambling industry, including different revenue streams, profits, employment, location/ownership and type.
   (b) Differentiate between different types of gambling, including visible 'traditional' (gambling in betting shops, arcade machines, casinos) and 'new' or invisible (chiefly online) modes of gambling.
   (c) Assess how gambling laws in Ireland and other jurisdictions impact on patterns of gambling.

The first six months of our research has encompassed searching, collecting and analysing information available about gambling and problem gambling by using different academic databases and websites (See Annex A.2). We have created a private online repository and reference library to collate and share this information between us (See Annex A.1).

## 1.2 Organisation of the Working Paper

This working paper is organised into the following sections.

Section 2 defines gambling and other gambling-related terminology in the international gambling literature. In this section, we also discuss the relative ambiguity of the terminology related to the negative impacts of gambling and highlight the lack of consensus in the terms used in the literature. As this section shows, gambling is a complex phenomenon with multiple dimensions. We present a list of factors contributing to the increasing prevalence of gambling and negative gambling impacts in the twenty-first century. We also provide a list of different categories of harms emerging from problematic gambling behaviours.

Section 3 presents statistical data on the international gambling industry and key markets. We combined different sources of information to provide the most up-to-date information about the global gambling market in terms of revenues, gambling activities and preferences. We also address the prevalence of gambling by regions with a particular focus on Europe and Ireland. Different reports/ studies, use different classifications of gambling, making it challenging to provide exact information for some markets. This section also discusses the prevalence of what has become known as 'problem gambling'. However, the lack of consensus on defining who is a problem gambler and the use of different tools to measure at-risk behaviour make it difficult to provide global estimates. Some jurisdictions are better than others at collecting and publishing relevant data and information.

Section 4 introduces different approaches to understanding gambling. In the first part of this section, we present some international theoretical models from the social, psychological, health and biological perspectives attempting to explain the nature and development of problem gambling. In the last part, we review studies on gambling trends and behaviour in Ireland. As this section demonstrates, most of the research carried out in the Irish context has been conducted from a psychological or health perspective. Although some studies have adopted social and cultural perspectives, these approaches are in a minority.

Section 5 presents an overview of international regulations and public policies related to gambling. This section reviews the existing gambling regulatory frameworks and the reasons for legalising gambling activities across different jurisdictions. As this section shows, a widespread change in perceptions of gambling in recent decades, along with the relatively poor understanding of the extent of gambling-related harms, were the main motives behind the extensive legalisation of gambling throughout Europe and North America (in the context of broader trends of deregulation and liberalisation of markets). However, research has only begun to explore the myriad impacts of the legalisation of gambling. Further research is necessary to understand better its impact, both at the individual and societal level.

Finally, section 6 presents the final considerations for this working paper and for the next stage of our research project. Overall, gambling is a major leisure industry and activity worldwide and has a significant presence in Ireland. While sports betting dominates, there is a wide range of gambling types, and online gambling is growing rapidly. At the same time, there is a growing awareness of the potential and actual harms caused by gambling. Currently, there is a relative paucity of quantitative market and gambling prevalence data and little qualitative sociological research on gambling behaviour and its impacts in Ireland.

# 2 Gambling Definitions

## 2.1 Definitions and Types of Gambling

In general terms, gambling is a term defined as "staking money or something of material value on an event having an uncertain outcome in the hope of winning additional money and/or material goods" [Abbott et al., 2018]. Other approaches define gambling as "an activity which may be summarised as involving participation in games of chance for money" [Fulton, 2015].

Most gambling definitions involve a bet or stake (i.e., placing something of value at risk) where gamblers have no way to affect or influence the outcome. The term also includes a diversity of gambling activities from traditional betting, lotteries, and casino games to newly emergent online forms, as shown in Table 1. Gambling activities are undertaken in a wide variety of settings and defined in different situations, as shown in Table 2. Additionally, the profile of gamblers and their perceptions about gambling are diverse [Abbott et al., 2004].

| **Type of Gambling** | |
|---|---|
| **Land-based gambling** refers to gambling that takes place in casinos, bookmaking shops or racecourse meetings. Literature also calls this type of gambling offline gambling. | ▪ **Casino Games** includes slot machines, blackjack games, poker games, roulette, keno, craps, baccarat and others. (Casino games on social media platforms, also known as social casino games, are not a form of gambling and thus, not included in this category.)<br>▪ **Traditional Betting** includes betting on sports events, political events, horseracing, greyhound racing and others.<br>▪ **Number Games** includes general lotteries, instant lotteries or "scratch-off" games, raffles, bingo and the lotto. |
| **Internet Gambling** refers to gambling that takes place through the Internet by using computers, laptops or mobile devices and apps –usually referred to as online or remote gambling. | ▪ **Online Casino Games** include slot machines, blackjack games, poker games, roulette, keno, craps, baccarat and others.<br>▪ **Online Betting** includes fixed odds betting (a traditional form of sports gambling), in-play/live betting, exchange betting (no bookmaker involved), spread betting (including on sports and financial markets), fantasy sports betting and e-sports betting.<br>▪ **Online Number Games** includes general lotteries, instant lotteries, raffles, bingo and the lotto. |

Table 1: Forms of Commercial Gambling

Understanding all of these types of gambling is necessary to understand the social contexts and impacts of gambling and related problems, according to Abbott et al. [2004]. Specifically, this is important because there is some evidence associating some types of gambling activities (i.e., internet gambling, betting on sports and horse races, slots and Video Lottery Terminals (VLTs)) more emphatically with gambling-related problems [Holtgraves, 2009].

## 2.2 Defining the Negative Impacts of Gambling

Researchers have defined the negative impacts of gambling in different ways. Most of the literature on gambling, mainly coming from a medical perspective, uses the term 'problem gambling' (Blaszczyn-

| Category | Definition |
|---|---|
| Commercial Gambling | This term refers to a formal, regulated style of gambling that includes a variety of gambling types such as casinos, video lottery terminals, lottery tickets, horse racing, and legal sports betting, among others. The relationship between gambling provider and gamblers is unequal as the gambler usually losses money to the provider [Abbott et al., 2018]. |
| Private Gambling | This term includes betting with friends. This type of gambling takes place in informal social settings, and the group members redistribute the money among all of them [Abbott et al., 2018]. |
| Recreational Gambling | This term refers to gambling as a recreational, leisure and social entertainment activity usually occurring in low-risk settings and/or controlled situations [Abbott et al., 2018]. Some researchers in this area mention some positive aspects of recreational gambling (Per, 2013; Hilbrecht and Mock, 2019). |
| Illegal Gambling | This refers to a group of different gambling activities not constrained by laws or regulation to pay winners or to collect debts through legitimate avenues. The relationship between illegal operators and gamblers is unequal [Abbott et al., 2018]. |
| Gaming | The term gaming is sometimes used in the literature to refer to gambling activities, but they are not the same thing. Gaming refers to videogames only. Though gamblers achieve gambling outcomes by chance, gaming outcomes usually require skills and strategy. The development of social media platforms has blurred the line between gambling and gaming. Some games include elements of gambling (e.g., skin gambling and loot boxes and gambling simulations), while some forms of gambling have adopted game-like elements (e.g., skill-based slot machines and arcade casino games) [Abbott et al., 2018] |

Table 2: Categories of Gambling

ski and Nower, 2002; Sharpe, 2002; Abbott et al., 2004; Zangeneh and Haydon, 2004; Bernhard, 2007; Griffiths, 2009; Meyer et al., 2009; Holtgraves, 2009; Williams, 2012; Ajdahi and Wolgast, 2014; Fulton, 2015; Nower et al., 2015; Calado and Griffiths, 2016; Hing et al., 2016a,; Hing et al., 2016b; Khanbhai et al., 2017; Murphy, 2019).

Although 'problem gambling' is not a medical term, health practitioners and researchers from a psychological and medical perspective usually use this term interchangeably with pathological, disordered or addictive gambling to describe gambling behaviours associated with health problems. Meanwhile, some social researchers use this term to "indicate situations where gambling has become problematic for the gambler, that is the gambler has control issues with gambling and there have been negatives consequences as a result of this gambling behaviour" [Fulton, 2015, p. 12]. The term from this perspective is not restricted to health problems but also might include social, cultural and financial consequences and relational conflicts [Langham et al., 2015].

Due to the lack of consensus about its definition, some researchers propose the use of the term "harmful gambling" [Abbott et al., 2018] to refer to the different dimensions of harms, including financial problems, addiction or physical and mental health issues. Nevertheless, it is essential to note that harmful gambling is a broad term comprising pathological gambling, gambling disorder and addiction. As table 3 shows, these terms express different levels of severity and frequency associated with particular patterns of gambling. Gambling disorder is the most extreme form of harm.

| **Concept** | **Definition** |
|---|---|
| Harmful Gambling | This term refers to "any type of repetitive gambling that a person engages in that leads to (or aggravates) recurring negative consequences, such as significant financial problems, addiction, or physical and mental health issues" [Abbott et al., 2018, p. 4]. The authors also consider that the gambler's family, social network, and community may also experience adverse effects. |
| Pathological Gambling | The Diagnostic and Statistical Manual of Mental Disorders (DSM-4) defined pathological gambling as an impulsive–control disorder, where the sudden loss of control caused damage and disruption to an individual's social networks [Clark, 2014]. |
| Gambling Disorder | The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders reclassified pathological gambling from impulsive-control disorder to addiction and subsequently changed the name to "Gambling Disorder" [Reilly and Smith, 2014]. Other related terms include: "gambling addiction" or "compulsive gambling." The reason behind the change is that the growing evidence on problem gambling reveals common elements with substance use disorders (Clark, 2014, Reilly and Smith, 2014). |

Table 3: Categories of Problem Gambling

Both 'problem gambling' and 'harmful gambling' draw attention to the negative impacts that gambling can have on the individual and society.

## 2.3 Factors Contributing to the Rise in Gambling and Gambling Harms

Engaging in gambling activities might cause a range of negative outcomes, including addictive behaviours and deterioration in health-related quality of life. However, as Griffiths [2015] has crucially noted, these concepts -'gambling addiction' and 'problem gambling'- are not the same. "All gambling addicts are problem gamblers but not all problem gamblers are gambling addicts" [Griffiths, 2015, p. 37].

The literature on gambling often treats problem gamblers as a homogeneous social group, but the pathways (e.g., different gambling activities) through which one might become a problem gambler are different [Holtgraves, 2009]. Problem gambling is a multi-faceted phenomenon' [Griffiths et al., 2009], with a complexity of general factors driving this behaviour. Abbott et al. [2018] have classified these factors into two categories: specific factors and general factors. Each element has relevant sub-factors. Table 4 outlines all factors and sub-factors.

Factors contributing to problem gambling have a differential impact on gamblers. Table 5 shows six types of gambling-related harms identified in Langham et al. [2015]'s study.

Evidence from a wide range of jurisdictions shows that the most prevalent negative consequence of engaging in gambling activities is financial harm. According to Langham et al. [2015], there are three levels of harm in this category. The first level of severity includes immediate 'loss of surplus' and 'loss of capacity' to purchase luxury items such as holidays and electronic devices. Within the same category of harm, the authors classify the erosion of savings and the reduction in capacity to spend money on social activities with family and friends. The second category of severity includes strategies to solve immediate financial problems such as 'funds generation' (taking additional employment or

| | |
|---|---|
| **Specific Factors** | |
| **Gambling Environment** can affect the nature and frequency of gambling activity, and the degree of gambling-related harm that results. | 1.1 Economic variables<br>1.2 Socio-Political environment.<br>1.3 Public policy<br>1.4 Culture of social responsibility |
| **Gambling Exposure** is a prerequisite for harmful gambling since no gambling would occur without the opportunity to do so. | 1.5 Gambling setting<br>1.6 Accessibility<br>1.7 Adaptation<br>1.8 Marketing and Messaging.<br>1.9 Convergence of gaming and gambling |
| **Gambling Types** refers to various forms of gambling, which may have different potential to cause harm | 1.10 Structural Characteristics<br>1.11 Motivational characteristics |
| **Gambling Resources** available to the individual that can prevent or reduce harm | 1.12 Service access and use<br>1.13 Harm reduction and prevention.<br>1.14 Risk Assessment<br>1.15 Interventions. |
| **General Factors** | |
| **Cultural Factors** have an impact on gambling prevalence, the popularity of various gambling forms, attitudes towards gambling, and gambling practices. | 2.1 Ethnicity and traditions<br>2.2 Indigenous peoples.<br>2.3 Socio-cultural attitudes<br>2.4 Religion and other beliefs<br>2.5 Gambling cultures<br>2.6 Gender |
| **Social Factors** encompass both interactions among people and their collective co-existence, shape how commercial gambling is made available and how others perceive people who develop difficulties. It also influences attitudes and beliefs about different types of gambling and best practices for treatment. | 2.7 Social Demographics<br>2.8 Family and peer gambling involvement<br>2.9 Educations system<br>2.10 Neighbourhood<br>2.11 Stigmatization<br>2.12 Deviance |
| **Psychological Factors** includes individual characteristics that may affect gambling. The persons' biology and their social environment shape personal features. | 2.13 Personality and temperament<br>2.14 Coping styles<br>2.15 Self-perceptions<br>2.16 Social learning<br>2.17 Lifespan Development<br>2.18 Comorbid disorders<br>2.19 Subjective well-being<br>2.20 Adverse childhood experiences<br>2.21 Judgment and Decision-making |
| **Biological Factors** may help explain why some people and not others develop harmful gambling | 2.22 Genetic Inheritance<br>2.23 Neurobiology. |

Table 4: Factors Contributing to Harmful Gambling
**Source:** Abbott et al. [2018]

selling household items) or 'debt generation' (accessing more credit, kite-flying, pawning items, and non-payment of bills such as utilities and rates). The third category of severity includes the reduction

| Category | Definition |
|---|---|
| Financial Harms | This category includes different levels of financial harm such as 1) immediate monetary loss, 2) fund generation and debt generation, to 3) unable to meet essential expenditure which can have immediate and non-immediate consequence. |
| Relationship Conflict | The gambling-related harms affect the relationship between gamblers and their family, friends and community mainly in two dimensions – loss of time and loss of trust. |
| Psychological Distress | Gamblers and affected others report emotional and psychological distress from the inability to control gambling behaviours, desperation from not being able to recover losses, feelings of shame and guilt, lack of safety due to (sometimes) illegal actions and online gambling activity. |
| Health Decrement | This research area is still not well developed, but some findings have found indirect impacts on the individual's health and wellbeing. Related issues are the ideas and attempt to suicide ideation. |
| Cultural Harm | A person's culture is more than just the relationship with other people who share the same culture. Culture includes beliefs, practices and roles. Some doctrines forbid participation in gambling activities. However, people involved in gambling challenge these beliefs and often fail to participate in the community and fulfil their expected roles. Consequently, gamblers reduce their connections to the cultural community. |
| Work/Study Impact | Tiredness and absenteeism from work or educational settings because of gambling activities and ongoing poor performance in school or workplaces are the main issues affecting gamblers' job or study environment. |
| Criminal Activity | The types of criminal activities include crimes of negligence, crimes of duress (or coercion) and crimes of opportunity. |
| Lifecourse Harms | This type of harm includes adverse effects with high impact on the gambler's life such as significant problems created within life course trajectories (e.g., marriage, having children), loss of primary relationships and social connections, having to move towns due to the impact of gambling activities, homelessness or incarceration due to gambling. |

Table 5: A Taxonomy of Gambling Related Harms
**Source:** Langham et al. [2015]

or loss of ability to meet expenditure which might have consequences. Such consequences might be non-immediate effects such as not being able to pay the insurance and non-essential repairs and not being able to maintain assets such as homes and cars, preventive health activities such as dental check-ups. Other consequences might be immediate effects such as not being able to purchase food, essential medications, clothing, health care services, housing or children's education.

Other consequences include the disruption and breakdown of relationships. Gambling directly impacts not only the gambler but also their partner, family, friends and the broader community. Among the harms, we can include the loss of trust within a relationship, and the failure to spend time with family members. Other potential negative consequences include social isolation, shame, stigma, vulnerability to harmful behaviours, psychological distress and life course and intergenerational harms.

Harmful gambling behaviours can lead to significant emotional and psychological distress to both the person who gambles and their affected others. Such distress includes 1) a lack of control over gambling behaviour and its effects; 2) perceptions of vulnerability due to the impact of online gambling at home; and 3) feelings of shame and stigma (strongly related to suicide ideation).

Researchers have found other significant indirect impacts on health. For example, sedentary behaviour and associated risk factors such as smoking, alcohol consumption, and poor nutrition might affect the gambler's well-being. In problematic cases, this is related to poor sleep patterns, non-compliance with medication regimes and reduced personal hygiene, which might have subsequent consequences such as headaches or even the onset of chronic diseases such as diabetes and hypertension.

As a consequence of engaging in gambling activities, some gamblers experience tiredness or distraction in their study habits or workplaces. Absenteeism and ongoing poor performance affect gamblers' work performance or study regime. In other situations, some problem gamblers engage in criminal activities, usually to address financial deficits to continue gambling. The types of illegal activities are 1) 'crimes of negligence' such as child neglect, 2) 'crimes of duress' such as drug trafficking or prostitution to repay debts, and 3) 'crimes of opportunity', including acts ranging from petty theft from family members to illicit borrowing, and fraudulent efforts to attain funds (this includes crimes of financial harm committed within the workplace, for example, stealing from an employer to fund a gambling habit) [Langham et al., 2015].

Finally, in some cases, the cumulative impact of harms is so significant that it creates a change in the life-course of an individual and his/her descendants. The negative consequences pass between generations creating a 'generational loss' [Langham et al., 2015]. For instance, the gambler's family might lose financial security (e.g., loss of a car, home, business, job, savings) or experience homelessness, suffer incarceration or lose children on social safety grounds (by government agencies).

# 3 Gambling Trends in International Statistics

This section presents statistical data on international gambling trends. We combined different sources to provide the most up-to-date information available. It is important to note that relevant authorities have produced and published industry data at the national level. However, for the international landscape, we are reliant on the estimated market information provided by trade associations and specialist global research agencies such as H2 Gambling Capital and other firms. Due to the relative paucity of international statistical data, we also consulted Statista. This online resource provides statistical data on a broad range of topics. It combines statistics from government and NGO sources with industry data and then presents all statistics in graphical format. Peer-reviewed work on international gambling patterns (Rohlwing, 2018; Swoger, 2015) recommends this source of statistical information for academic use.

It is important to note that the available data makes no distinction between online and offline/land-based markets and activities. Due to the overlap between the offline and online gambling markets, market research/consultancy firms present data on the gambling market as a whole. When such entities provide a more detailed examination of gambling markets, most of the information tends to focus only on the online market. This focus on online gambling is mainly because this is the fastest-growing sub-section of the market globally. A more detailed classification and breakdown of types of gambling activity in different markets would be beneficial.

## 3.1 Global Gambling Market

The gambling market is a diverse and expanding sector globally. The value of this market as a whole reached $457 billion gross wins[1] in 2019 [H2 Gambling Capital, 2020]. Figure 1 depicts the gross gambling win from the global gambling market from 1999 to 2019 with projected figures for 2020, 2021, 2022 and 2024. The analysis of H2 Gambling Capital and other market consulting firms (Global Gambling & Gaming Consultants, 2019; Arizton, 2018; The Business Research Company, 2019; TechNavio, 2018) concur that the gambling sector will go on rising in the following years, even allowing for the disruption caused by COVID 19.

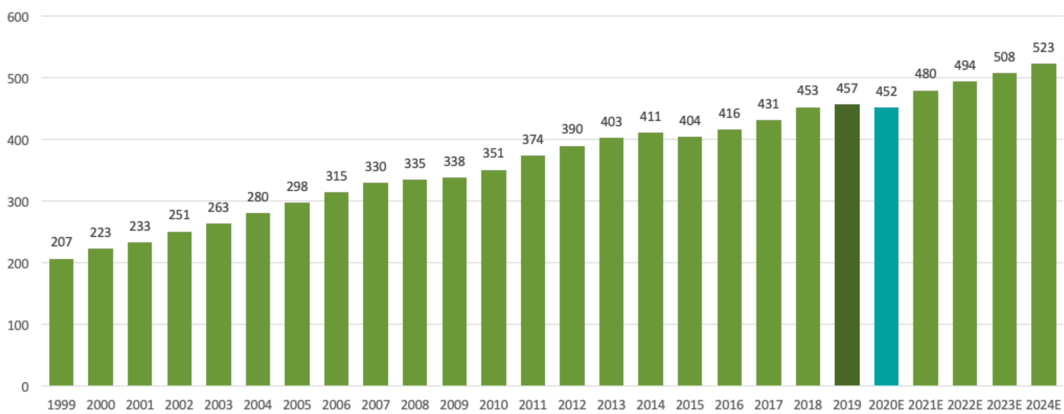


Figure 1: Total Global Gambling Gross Win (in Billion US Dollars) From 1999 to 2019, With Forecast Estimates From 2020 to 2024
**Source:** H2 Gambling Capital [2020]

[1]As defined by Statista, a gross win is "the stakes/wagers placed minus the prizes and payouts but including bonuses" https://www.statista.com/statistics/208456/global-interactive-gambling-gross-win/.

A recent analysis by H2 Gambling Capital [2020] has found that the COVID 19 is already having an impact on many of the world's largest gambling markets. H2 Gambling Capital has published data that suggests the global market will see a minimum 1% drop in global gambling gross win in 2020. The pre-COVID 19 forecast of $475 billion has been updated to $452 billion, as shown in figure 1.

### 3.2 Gambling Activities Categorised by Type

The global gambling market is comprised of different types of gambling activities. It includes betting, casinos, lotteries, poker, gaming machines and others. Figure 2 shows that betting is the most popular gambling activity in the world, with 36% of the global gambling market, followed by casinos. Industry forecasts suggest that betting revenues will continue to increase, while casinos will remain stable for the foreseeable future.

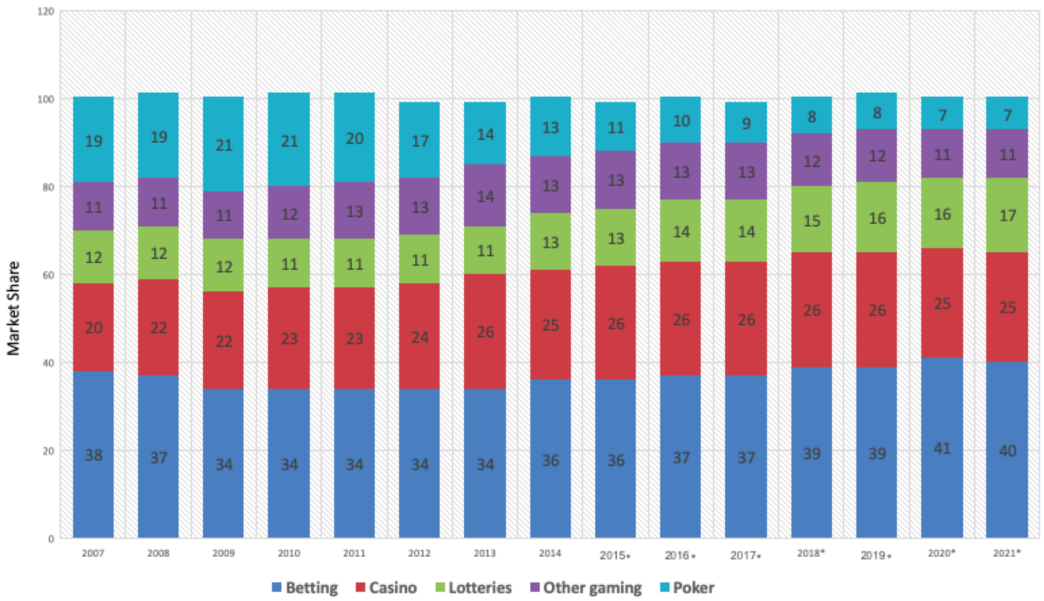


Figure 2: Market Share of the Global Gambling Market From 2007 to 2014, With Projected Figures for 2015 to 2021, by Product Category
**Source:** Statista Research Department [2018a]

These types of gambling can be classified into two major categories, namely offline (land-based) and online. The land-based gambling sector still has the largest share of global gambling business. However, land-based gambling has decreased its share of gross win in recent years. In 2012, land-based gambling accounted for 92% of the sector across all markets [H2 Gambling Capital, 2013], while in the most recent estimate, land-based gambling accounts for 87%, according to a recent (2020) H2 Gambling Capital press release.

Contrary to the land-based gambling sector, H2 Gambling Capital analysts expect online gambling to increase its share of gross win. Figure 3 shows a consistent growth of the online gambling sector over the years 2003 to 2015 [H2 Gambling Capital, 2013]. The total online gambling in 2019 was $61.5 billion US, expected to increase to $89.3 billion US by 2024 [888 Holdings plc, 2019].

Additionally, H2 Gambling Capital [2020] uggests that movement restrictions caused by COVID 19 could contribute to an increase in the online share of global gambling gross from 13.4% to 14.7% in 2020. By contrast, land-based gambling gross win is now forecast to fall by 2.4% to $386 billion US dollars (pre-COVID 19 forecast $409 billion).

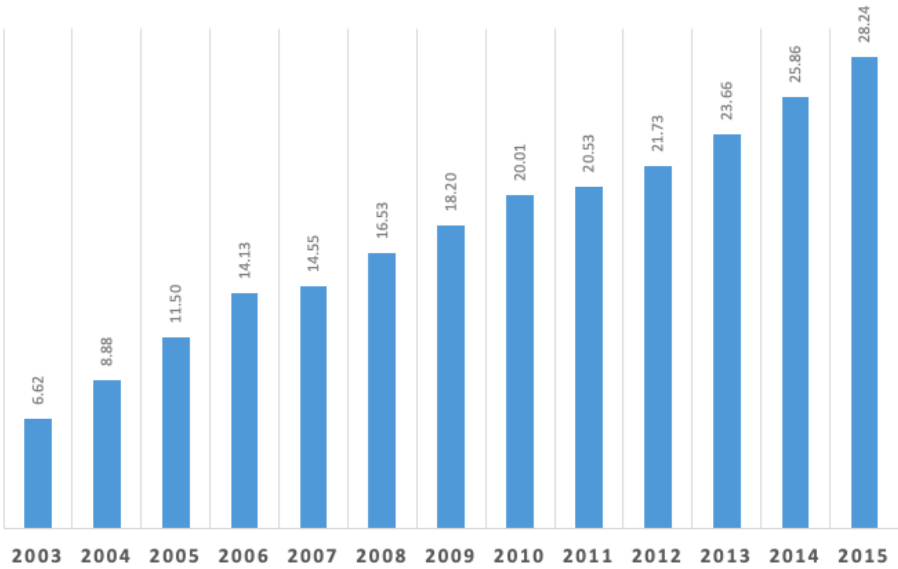


Figure 3: The Global Online Gambling Gross Win 2003-2015 (in Billion EUR)
**Source:** H2 Gambling Capital [2013]

Sports-betting is the most significant revenue contributor in the overall online gambling sector with 62% ($33.1 billion US dollars) of gross gambling win in 2019 [888 Holdings plc, 2019]. The second-largest segment is online casinos which accounted for 29% ($15.3 billion US dollars) share of the total sector [888 Holdings plc, 2019]. The online gambling sector includes poker and bingo with 5% and 4% market share, respectively.

The major companies within the online gambling industry are International Game Technology, GVC Holdings, Bet365, Scientific Games Corporation, Flutter Entertainment, William Hill, Playtech, Kindred Group and the Rank Group. Figure 4 shows the top ten online gambling companies worldwide in 2019.

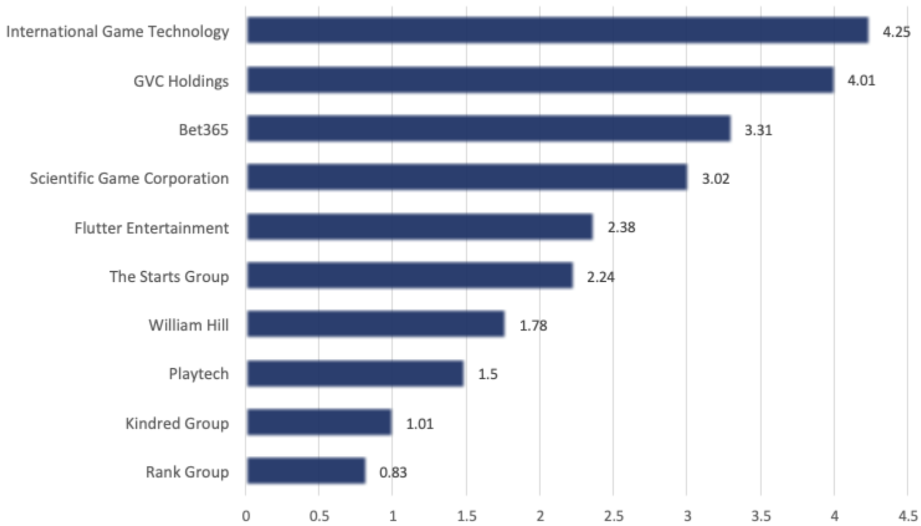


Figure 4: Top 10 Online Gambling Companies in the World in 2019, by Revenue (in Billion EUR)
**Source:** Bet365 plc [2019], Flutter Entertainment plc [2019], GVC Holdings plc [2019], International Game Technology PLC [2019], Kindred Group plc [2019], Playtech plc [2019], Rank Group plc [2019], The Starts Group plc [2020], William Hill plc [2019] and 888 Holdings plc [2019].

The International Game Technology company (USA) was the largest online gambling firm in terms of revenue in 2019, accounting for almost €4.25 billion, according to our comparison of gambling companies' annual reports and financial statements. In second place is GVC Holdings (Isle of Man) whose revenue accounted for almost €4.01 billion. In third and fourth place are Bet365 (the UK) and Scientific Game Corporation (the USA) with a bit more than €3 billion in revenue.

Different factors have accelerated the demand for online gambling. These factors include the development of technology, such as the use of smartphones and apps and the global rollout of 4G and 5G. Increasing digitalisation (i.e., bitcoin and other 'crypto-currencies' as an alternative option to cash for gaming as well as the increased use of credit and debit cards) linked with secure digital payment options are also among the factors contributing to online gambling market growth. H2 Gambling Capital forecasts an expansion of the online gambling sector attributed mainly to the increasing use of digital currency and websites provided by companies for betting and gambling.[2]

### 3.3 Gambling Markets by Regions

The global gambling market is segmented geographically into six regions, namely Africa, Asia, Europe, North America, Oceania and Central/South America. Figure 5 shows the gambling share by region. The fastest-growing market in the world is the Asia region (32%), with the top-ranked countries, including China and Japan. North America (29%) and Europe (26%) are the second and third largest regions, respectively, with significant market share.


Figure 5: Global Gambling Market by Revenues
**Source:** Global Gambling & Gaming Consultants [2019]

Although Asia is the leading gambling region by gambling gross win accrued, the USA continues to be the largest single market in absolute terms, accounting for $119.5 billion US dollars, or 30.2% of the total global gambling gross win in 2019, with China coming in second place (Global Gambling & Gaming Consultants, 2019; H2 Gambling Capital, 2020). Figure 6 shows the leading countries

[2]"H2 Gambling Capital Takes Part in The Knowledge Podcast Hosted by Gambling.com", H2 Gambling Capital, 23 March 2020, https://h2gc.com/news/general/h2-gambling-capital-takes-part-in-the-knowledge-podcast-hosted-by-gamblingcom

by total gambling gross win in 2019. Figure 7 indicates that the USA, China, Japan, Italy and the United Kingdom account for 70.8% of the total global gambling gross win in 2019.

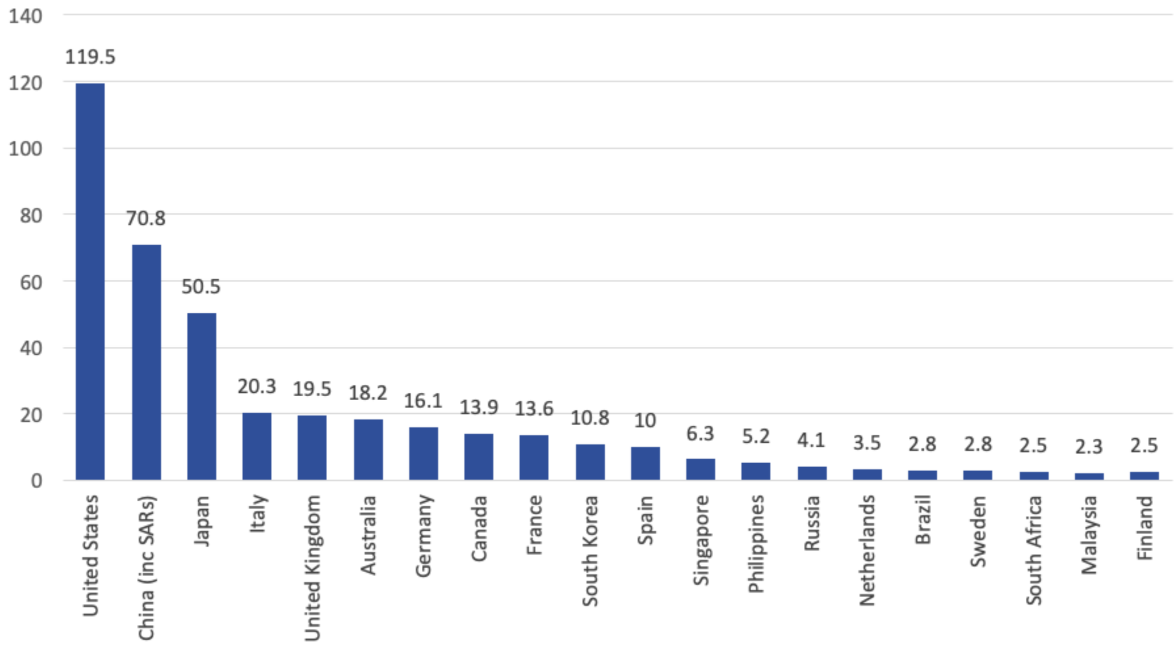


Figure 6: Leading Countries by Total Gambling Gross Win 2019 (in Billion US Dollars)
**Source:** H2 Gambling Capital [2020]

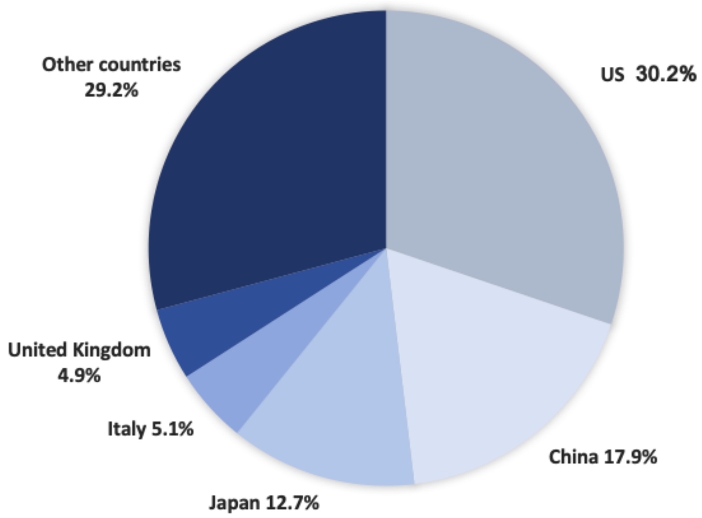


Figure 7: The Top Five Markets by Total Gambling Gross Win 2019
**Source:** H2 Gambling Capital [2020]

The USA is not only the most significant market by country, but it is home to the largest number of casino companies in the world. As shown in figure 8, the top-ranking casino company is the Las Vegas Sands Corporation. This casino generated a total of $13.74 billion US dollars in 2019 [Statista Research Department, 2020]. Its closest competitor is MGM Resorts, with revenue of $12.9 billion US dollars in the same year.

The City of Las Vegas is the headquarters of half of the largest selected casino companies in the world. Pennsylvania (US), Hong Kong, Australia and Malaysia host the head offices of the remaining companies.

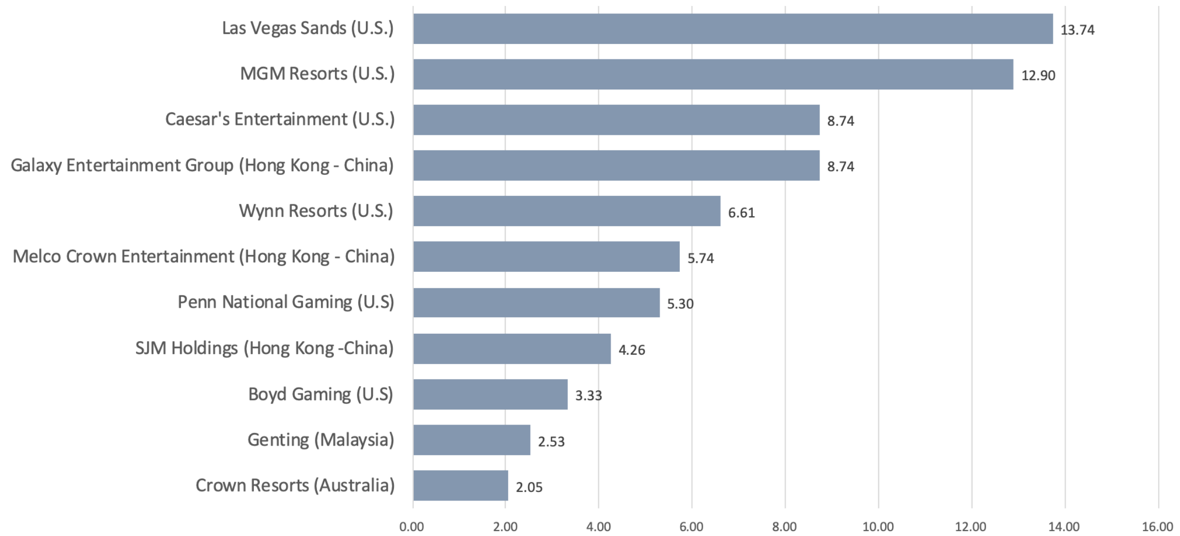


Figure 8: Leading Casinos in the World
**Source:** Statista Research Department [2020]

The percentage for China (see figure 7) includes Macau, a 'special administrative region' of China that accounts for approximately more than half of the total China gambling gross win. Indeed, Macau is one of the fast-growing gambling capitals in the world. It is also the only jurisdiction of China where casino gambling is legal [Liu et al., 2015]. Macau has developed rapidly over the last decade, producing revenue of $37.6 billion US dollars in gross revenue from gaming and gambling in 2018 [Statista Research Department, 2019c], significantly more the revenue generated in Nevada in 2017 [Statista Research Department, 2018b]. The success of the gambling industry in Macau has attracted casino companies from around the world. As of April 2019, Macau is home to half of the largest casinos in the world in terms of physical scale (e.g. Venetian Macau, City of Dreams, Ponte 16 and Sands Macau) [Statista Research Department, 2019d].

## 3.4 Gambling in Europe

Europe is the third fastest-growing market in the world after Asia and North America. Italy, with $20.3 billion US dollars, and the UK, with $19.5 billion US dollars, in gross gambling win in 2019, accounts for the most significant European gambling market [H2 Gambling Capital, 2020]. Other European countries in order of gross gambling win are Germany (16.1 billion US dollars), France ($13.6 billion US dollars), Spain ($10 billion US dollars), Netherlands ($3.5 billion US dollars), Sweden ($2.8 billion US dollars) and Finland ($2.5 billion US dollars). Figure 9 shows the gross gambling revenue in Europe. This figure coincides with data presented by H2 Gambling Capital (see figure 6).

In absolute terms, the European Union Member States with the largest populations are home to the largest markets. However, the size of the population does not have much to do with the propensity to gamble [Griffiths, 2009]. Of the five largest member states by population, only Italy is in the top five for gambling expenditure per capita (2nd overall) as shown in figure 10. The top five gambling countries by GGR are: Greece (18.7%), Italy (1.06%), Portugal (0.9%), Finland (0.88%) and the Czech Republic (0.84%) [Statista Research Department, 2019a].

In 2009, Griffiths reported that Ireland had the largest propensity for gambling according to its gambling expenditure per capita. Figure 10, however, places Ireland in eighth place overall. The

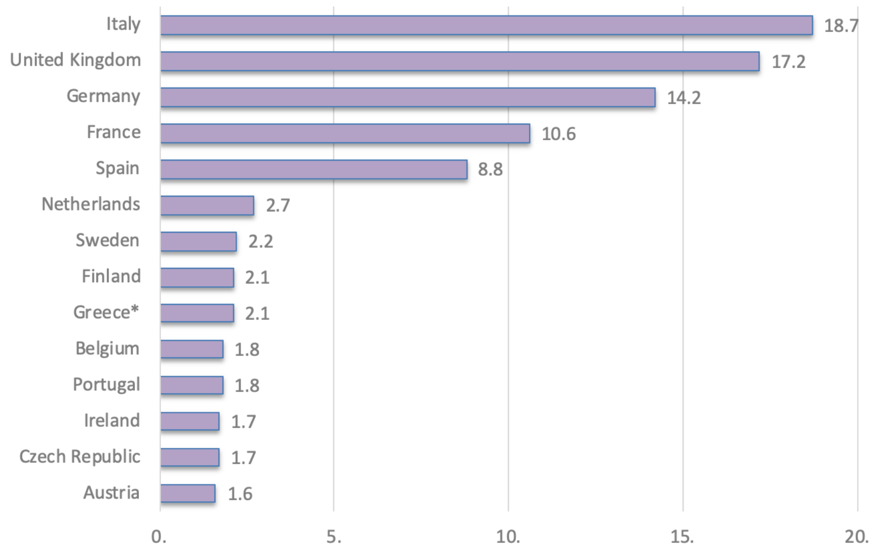


Figure 9: Gross Gaming Revenue (GGR) in Select European Countries 2018 (in Billion EUR)
**Source:** Statista Research Department [2019b]

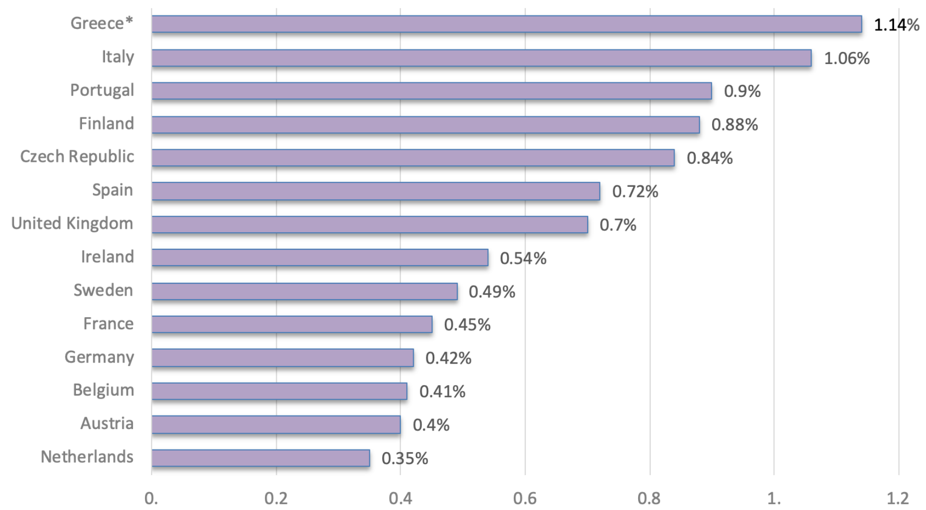


Figure 10: Gross Gaming Revenue (GGR) as a Share of GDP in Select European Countries 2018
**Source:** Statista Research Department [2019a]

financial crash of September 2008 and the ensuing deep recession in Ireland may have caused this decline. These conditions caused a downward trajectory in spending per capita in the decade that followed and severe individual and household retrenchment in spending.

Europe is the leading region of online gambling in the world. Figure 11 shows the online market share worldwide. The European online gambling market constituted approximately a 48.9% share of the global online market in 2017 and a 49.2% share in 2018 [European Gaming & Betting Association, 2019a]. According to recently published market data, the European Gaming and Betting Association (EGBA) in partnership with H2 Gambling Capital, estimated that the overall online GGR in Europe would reach approximately €29.3 billion by 2020 [European Gaming & Betting Association, 2019a].

In terms of individual European countries, the UK market accounted for the most substantial portion of the total EU online gambling with 34.2% and a market value of €7.3 billion GGR. Figure 12 shows the proportion of the overall EU online gambling market of selected European countries.

The total EU gambling market value amounted to €95.7 billion Gross Gaming Revenue. From

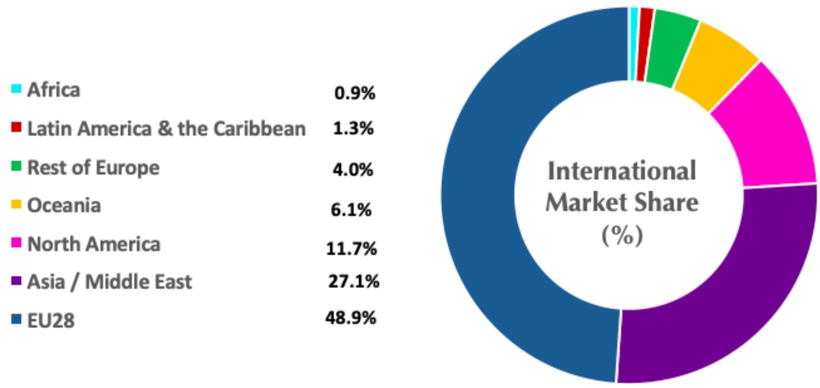


Figure 11: Global Online Market Share in 2017
**Source:** European Gaming & Betting Association [2019a]

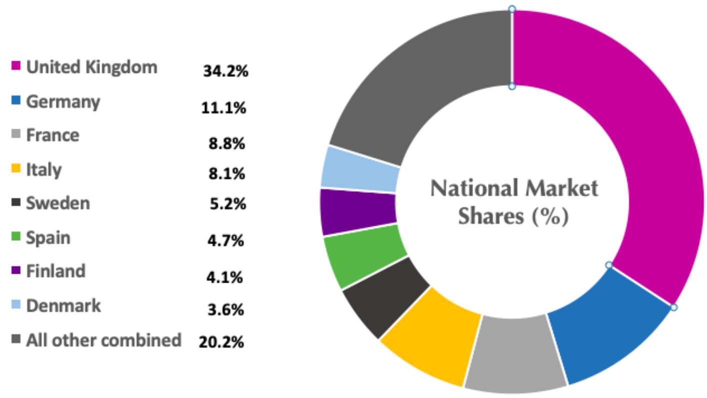


Figure 12: National Online Gambling Market Share (EU-28) in 2018
**Source:** European Gaming & Betting Association [2019b]

this total, the online sector had a 23.2% share, compared to land-based gambling which had a 76.8% share [European Gaming & Betting Association, 2019a]. The use of smartphones has undoubtedly facilitated the growth of the online market. According to EGBA, 57% of users gambling online placed bets from a desktop computer. Nevertheless, statistics highlight a pronounced shift toward the use of mobile devices and apps in recent years.

Sports betting is the most popular form of European online gambling with 42.5% of the total EU market share (worth €9.4 billion GGR), followed by casino games at 32.4% (€7.2 billion GGR), lotteries at 12.6% (€2.8 billion GGR), poker at 5% (€1.1 billion GGR), bingo at 4.3% (€1 billion GGR), and other games with a 3.2% market share (€0.7 billion GGR) [European Gaming & Betting Association, 2019a]. Figure 13 displays the distribution of online gambling revenues in Europe in 2018, by type.

When it comes to land-based casinos, there are 1,030 casinos in Europe registered with the European Casino Association (as of 2017.) The Czech Republic has the most casinos, followed by France and Great Britain [European Casino Association, 2019]. In terms of casino GGR however, France is by far the most prominent, with roughly €2,314 million [European Casino Association, 2019]. Britain generated €1,602 million and Switzerland, Germany and the Netherlands had a

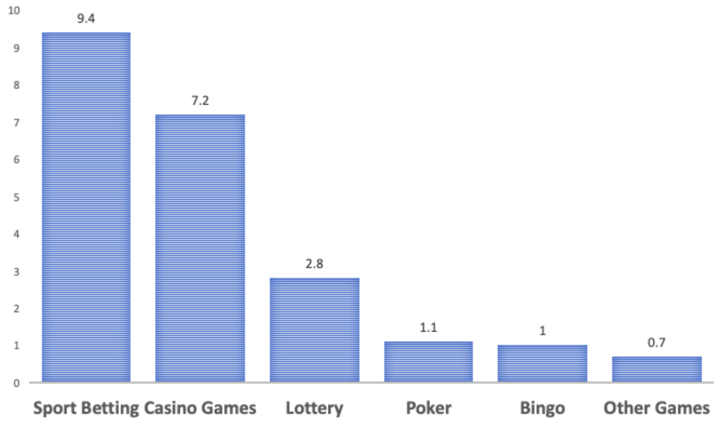


Figure 13: European Online Gambling Activities
**Source:** European Gaming & Betting Association [2019a]

casino GGR between €600 and 700 million [European Casino Association, 2019]. In terms of full-time employees in the casino industry in Europe, the UK has the most significant number with 16,471 (See Figure 14).

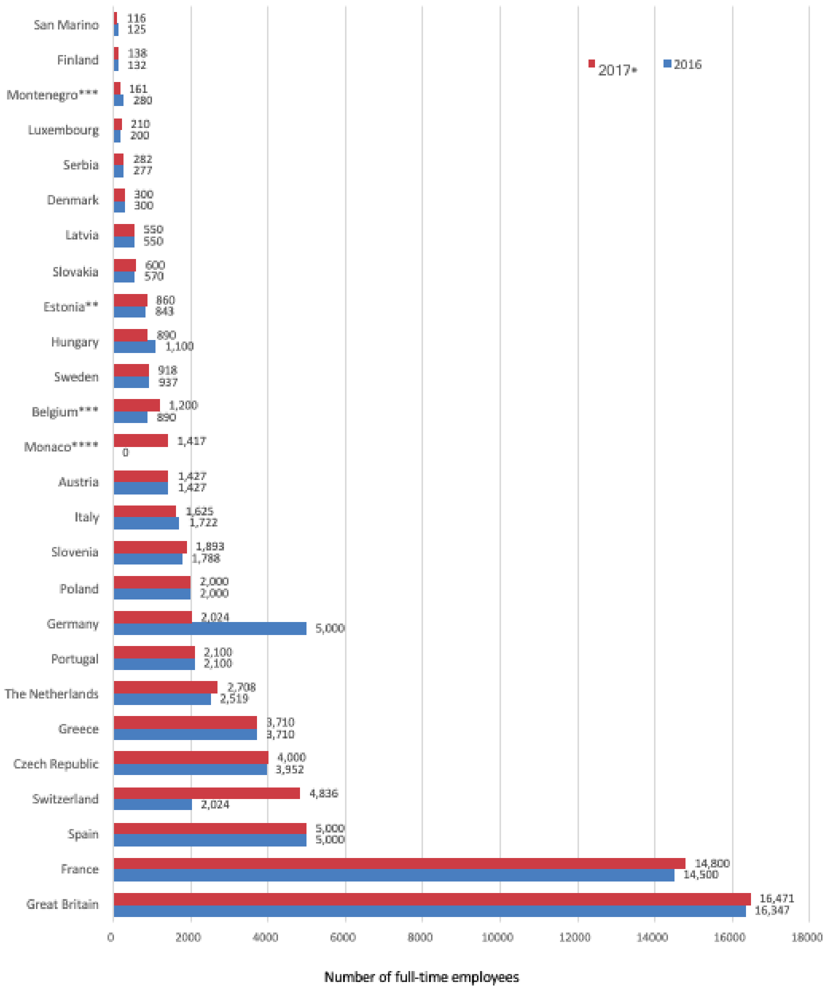


Figure 14: Number of Full-Time Employees in the Casino Industry in Europe (2016–2017), by Country
**Source:** European Casino Association [2019]

## 3.5 Gambling in Ireland

Gambling is now a significant industry in Ireland. The Revenue Commissioners in 2019 indicated that the 2% betting duty raised €95.0 million [Office of the Revenue Commissioners, 2020b], suggesting a market of €4.75 billion. National lottery ticket sales for 2019 amounted to €884.5 million. There are no published figures for revenues from gaming machines and private member's clubs, bingo or local community lotteries/raffles in the country. In this context, the value of the Irish gambling market annually has been estimated as being between €6 to 8 billion [Department of Justice and Equality, 2019].

In terms of revenue, the Irish betting sector is significant. This sector consists of retail bookmakers, online bookmakers and betting intermediaries, and on-course bookmakers. Table 6 define each category.

| **Category** | **Definition** |
|---|---|
| Retail bookmakers | A retail bookmaker or traditional bookmaker is a person who makes or accept a bet on the outcome of a race (off-course betting), competition or other events. Retail bookmakers conduct their business from a bookmaking office. |
| Online bookmakers | Online bookmaker, also known as a remote bookmaker, is a person who enters into bets with persons in Ireland by using the internet, telephone, television, radio or any different kind of electronic means. |
| Betting intermediaries | A betting intermediary is a person who offers betting exchange services - a service for others to make or accept bets or providing facilities for gambling. There is no risk to the intermediaries as they do not partake in the gamble. Betting intermediaries can be remote or non-remote. However, the licensing process in Ireland only includes remote betting intermediaries. |
| On-course bookmakers | An on-course bookmaker is a bookmaker operating at racecourses. |

Table 6: The Irish Betting Sector

An estimate of the scale of the betting sector can be estimated using betting duty. Figure 15 shows the betting duty net receipts from 2003 to 2019. The betting duty includes traditional betting, remote betting and betting commissions duty. In 2015 there was an increase in the net receipts garnered from betting duty because of the incorporation of online bookmakers and betting intermediaries into the licensing regime. The 2015 legislation required traditional bookmakers to obtain a licence and for online bookmakers to pay the 1% betting duty, while online betting intermediaries are required to pay a tax of 15% of commission for the use of their facilities [Department of Finance, 2018]. However, in 2019, the Fine Gael-led government sharply increased the gambling duty from 1% to 2%, and the betting intermediary duty from 15% to 25%.[3]

Retail bookmakers constitute the most significant single share of the Irish betting market in terms of revenue. The retail betting sector accounted for €51.8 million in betting duty in 2019, suggesting a turnover of about €2.59 billion of the €4.75 billion for the whole betting industry. Figure 16 breaks down the betting duty to indicate the growth of the retail bookmakers and remote bookmakers revenue from 2011 to 2019. The duty paid by the retail betting sector kept steady from 2011 to 2018, when, on foot of the increase in betting duty from 1 to 2%, the duty paid retail

[3] Excise Duty Rates, Revenue, https://www.revenue.ie/en/companies-and-charities/excise-and-licences/excise-duty-rates/betting-duty.aspx

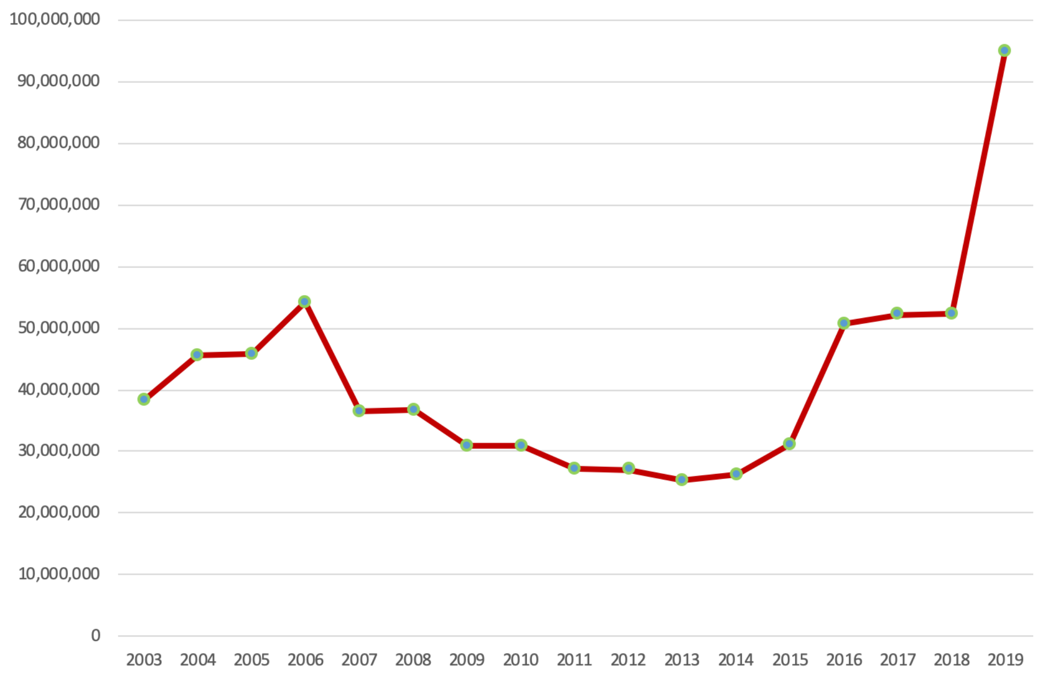


Figure 15: Betting Duty Net Receipts (in EUR) From 2003 to 2019
**Source:** Office of the Revenue Commissioners [2020b]

increased by 79% in the last year. On the other hand, the online betting sector had risen rapidly from just €3 million in 2015 to €40.6 million in 2019.

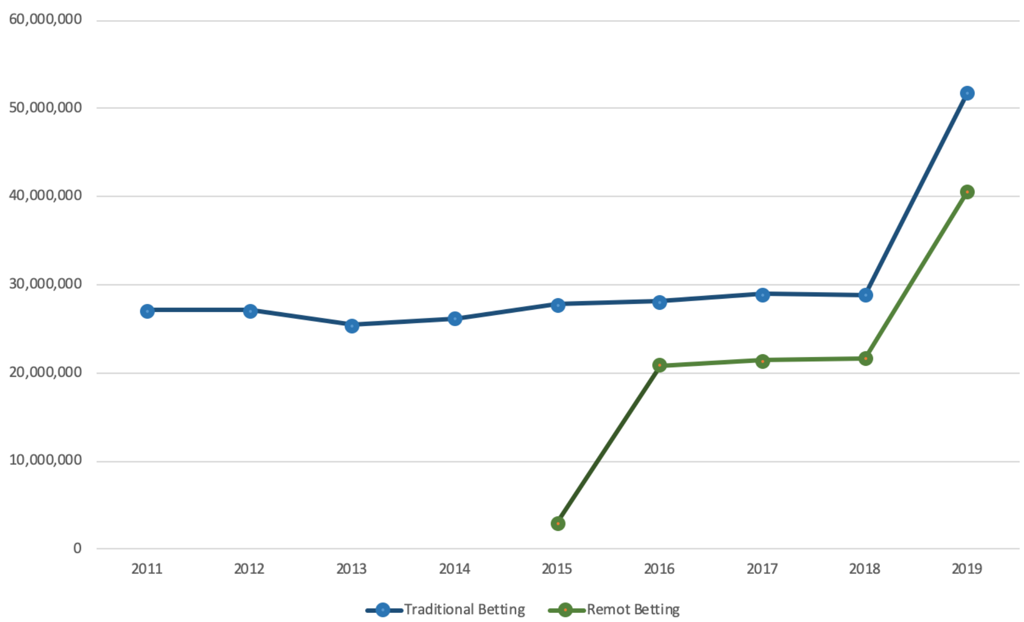


Figure 16: Betting Duty Net Receipts (in EUR) of the Retail Bookmakers and Remote Bookmakers from 2011 to 2019
**Source:** Office of the Revenue Commissioners [2020a]

The number of traditional bookmakers' licences issued/renewed in recent years also reflects the decline of the traditional betting industry over time. At present, there are 243 licensed bookmakers [Office of the Revenue Commissioners, 2020d] and 790 licensed bookmaking offices in operation in Ireland by 03 June 2020 [Office of the Revenue Commissioners, 2020c]. This figure differs slightly from the Irish Bookmakers Association (IBA)[4] which declares there are 813 betting shops operating in Ireland.[5] The Irish Bookmakers Association has published a graph that shows 572 betting shops closed in the country between 2008 and 2019. The Association attributes this reduction to the increase in the betting duty imposed on their members which takes no account of profits or losses. The Department of Finance [2018] explains this decrease by pointing to the phenomenon of medium-to-large chain operators buying smaller independent bookmakers.

The Office of the Revenue Commissioners has published some figures that corroborate a decrease in the number of bookmaker's licenses and shop premises renewed since 2011. Figure 17 shows the breakdown of betting duty receipts for bookmakers licences and bookmaking offices issued from 2011 to 2019. These figures do not reflect the total number of bookmakers licences and bookmaking offices at the time. However, the figures clearly point to a decrease in the quantity of betting shops operating in Ireland in recent years.

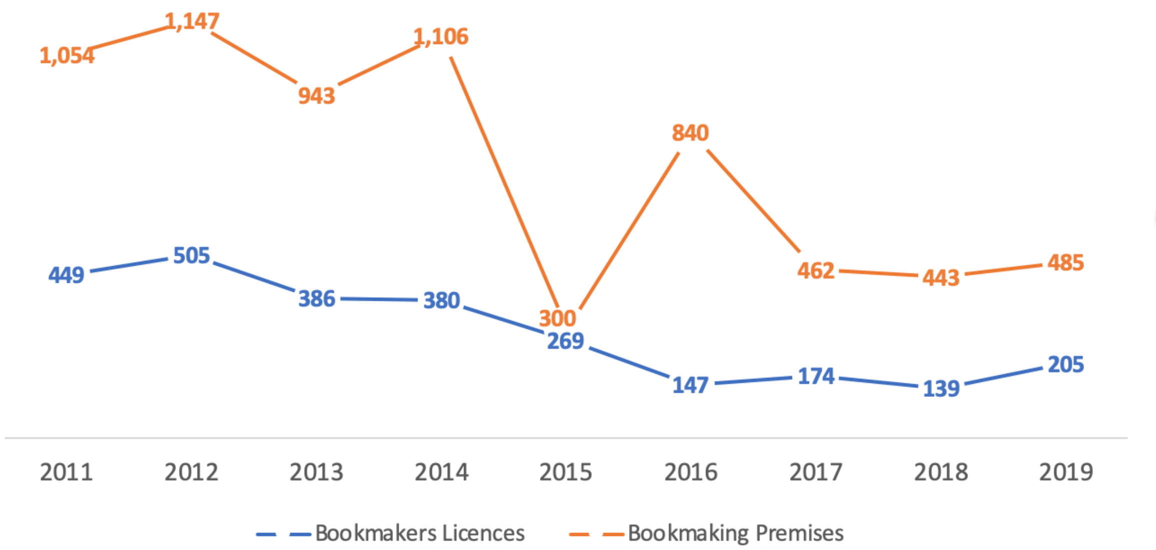


Figure 17: Number of Bookmakers Licences and Bookmaking Offices Issued From 2011 to 2019
**Source:** Office of the Revenue Commissioners [2020a]

The horse and greyhound industry is widely thought of an essential economic sector for Ireland, measured through employment rates as well as the global reach and competitiveness of the breeding industry in particular. Many people in Ireland, including families, still enjoy watching and placing bets at a horse or a greyhound racing meeting. Horse Race Ireland (HRI) reported attendance at race meetings of €1.315 million in 2019 [HRI, 2019]. Betting on the racecourse also rose to an overall figure of €78.9 million [HRI, 2019]. Although betting with on-course bookmakers increased to €58.4 million (about 6.6%), the on-course turnover of Tote Ireland fell by just under 1%, and total Tote betting was down 13% [HRI, 2019].

[4] Irish Bookmakers Association, https://www.irishbookmakersassociation.com

[5] The numbers of betting shops quoted on the IBA website are for the number of betting shops open and trading and taking the exclusive Data and Pictures services from a monopoly provider to the gambling sector – Satellite Information Services (SIS). Operators cannot function without this service.

The Irish National Lottery is another important sector. Premier Lotteries Ireland (PLI) who operate the National Lottery announced its full-year results for 2019 with sales up to €884.5 million, a 10% increase compared to the previous year. Figure 18 shows the annual sales data for the Irish National Lottery from 2015 to 2019. The total raised for Good Causes was €251.6 million in 2019, which means that PLI has raised €1.1 billion since 2014.[6]

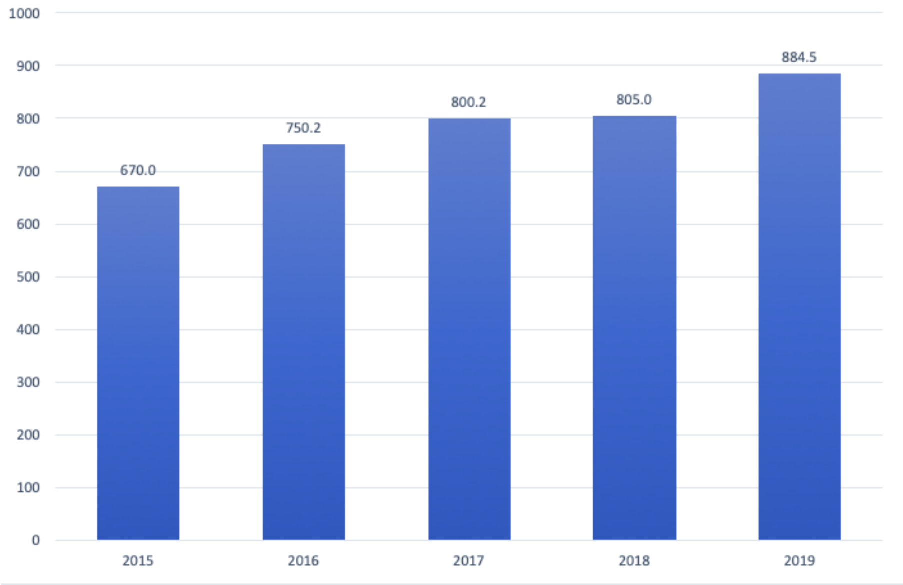


Figure 18: Annual Sales of the National Lottery in Ireland From 2015 to 2019 (in Million EUR)
**Source:** Regulator of the National Lottery [2018]

Casinos and casino-style games are regulated in Ireland under the Gaming and Lotteries Act (1956). The provisions of the Act do not apply to private arrangements. Thus, several casinos are currently operating in the country in what constitutes a legal grey area. Most of these entities are located in Dublin (e.g., the Fitzwilliam Casino and Card, Ned Kelly's Sportsclub & Casino, D1 Club, PlayLand Casino, the Sporting Emporium Casino, Fitzpatrick's Casino, Carlton Casino Club, Dr Quirkey's Good Time Emporium and others), but also in Cork (e.g. Macau Casino Complex) and Limerick (e.g., Fitzpatrick's Casino-Slots, Roulette and Daily Draws).

### 3.6 The Prevalence of Gambling and Problem or Harmful Gambling in Ireland

Gambling is increasingly prevalent in Ireland. The national gambling industry is growing in revenue every year and expanding from traditional outlets like horse racing and greyhound tracks into less visible types, including casinos and online gambling. Crucially, there is no gambling-specific prevalence survey in Ireland that measures gambling behaviour and the impact of participation in gambling activities on gamblers.

The Department of Health published the first set of data on the extent of gambling in Ireland on the 27th February 2019.[7] The data was published in Bulletin 7 of the 2014/15 Drug Prevalence Survey and was based on fieldwork carried out between August 2014 and August 2015. The sample comprised of 7,005 adults in the Republic of Ireland with a response rate of 61%.

Bulletin 7's figures show that 64.5% of people in Ireland engage in various forms of gambling [Department of Health, 2019]. 41.4% of Irish respondents report gambling every month, or more often.

[6] "Record prizes saw National Lottery raise €252 million for Good Causes in 2019", Lotto News, 04 June 2020, https://www.lottery.ie

[7] "Ministers publish first set of data on gambling in Ireland", Government of Ireland, https://www.gov.ie/en/press-release/5f337f-ministers-publish-first-set-of-data-on-gambling-in-ireland/

The highest level of participation occurred among those age 55-64 (72.4%), followed by 35-44-year-olds (70.5%) and 45-54-year-olds (69.4%) [Department of Health, 2019].

Land-based gambling is the most prevalent in the country, despite the increase in online activity. Gambling online or by telephone is common in the 25-34-year-old age cohort (5.7%), followed by 18-24-year-olds (4.8%). Figure 19 displays the relative prevalence of gambling in Ireland.

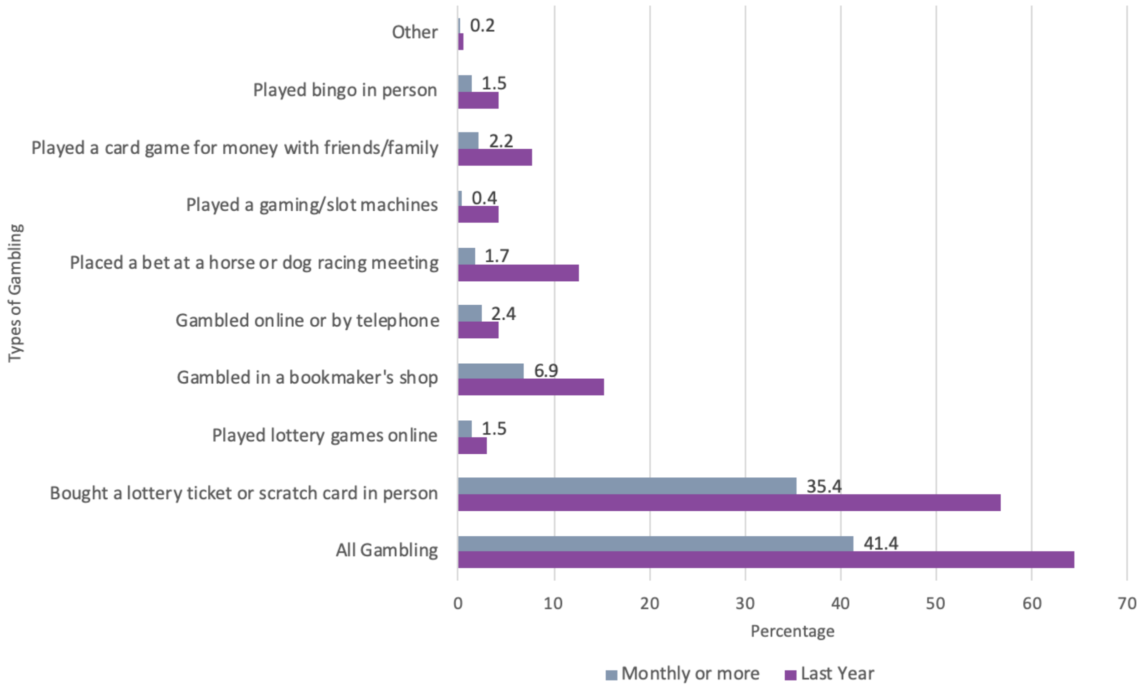


Figure 19: Prevalence of Gambling in Ireland (Adults Aged 15 or More by Percentage)
**Source:** Department of Health [2019]

In general terms, the purchase of lottery tickets and scratch cards constitutes the most common form of gambling in Ireland in all age groups. 56.7% of respondents bought a lottery ticket or scratch card in person in the 12 months before the survey, while only 3% played lottery games online [Department of Health, 2019]. Most people who bought lottery tickets, and played lottery games online, did so once per week. Most people who bought lottery tickets at physical locations, such as shops, and those who played lottery games online, also did so once per week.

Gambling in a bookmaker's shop and betting at a horse or greyhound event is the second most common form of gambling. 15.3% of respondents placed a bet in a bookmaker shop, followed by 12.7%, placing a bet at a horse or greyhound racing meeting [Department of Health, 2019].

As in other parts of the world, sports betting is also a popular activity for the Irish. Bookmakers quote odds on horseracing, sports and athletic contests, including football games, Gaelic football,[8] hurling, tennis, golf, and other sporting events. Bulletin 7 [Department of Health, 2019] reports that 27.5% of individuals placed bets on sports events in a bookmaker's shop.

Finally, playing cards and/or playing gaming or slot machines is less popular than other traditional forms of gambling. Playing cards occupies the fourth place, with 7.8% reporting this form of gambling in the previous 12 months, according to Bulletin 7 of the 2014/15 Drugs Prevalence Survey [Department of Health, 2019]. Only 4.3% of participants reported having played a gaming or slot machine [Department of Health, 2019].

Bulletin 7 of the 2014/15 Drugs Prevalence Survey [Department of Health, 2019] reported that the problem gambling prevalence rate in Ireland is 0.8% [Department of Health, 2019, p. 14]. This

[8] Collectively referred to as "Gaelic football" and controlled by the Gaelic Athletic Association (GAA).

estimation suggests less than 40,000 problem gamblers in Ireland. Before the publication of this survey, government agencies and stakeholders used other international data (where available). For example, the Institute of Public Health in Ireland [2010] produced a report using Northern Ireland and the United Kingdom survey prevalence data. Extrapolating from this data, the report estimated that between 0.6 and 1% of the population in Ireland, or approximately 40,000 people, experience problems related to gambling.

Strikingly, this figure of 0.8% contrasts with 2.3% found in the Northern Ireland in 2016 [Department for Communities, 2017]. According to the latest prevalence survey in Northern Ireland, the north has the highest rate of problem gambling across the United Kingdom [Department for Communities, 2017]. The prevalence rate is in fact, almost four times higher in Northern Ireland than in England [Department for Communities, 2017].

Problem gambling in Northern Ireland is also high relative to other regions where agencies have carried out gambling prevalence surveys. Problem gambling rates from other countries which have carried out surveys using the PGSI (Problem Gambling Severity Index) are presented in Figure 20. The prevalence rates of gambling-related problems in Northern Ireland comes in behind only Hong Kong (3.3%) and Africa (3.2%) [Department for Communities, 2017]. Why is the figure for Northern Ireland so high? There is clearly a case for more calibrated research here, but one reason may be the legacy of the Troubles (1968-1998) and the considerable degree of trauma and PTSD suffered by many during the conflict. There is scope too for comparative work examining the nature and scale of problem gambling across the two jurisdictions on the island of Ireland.

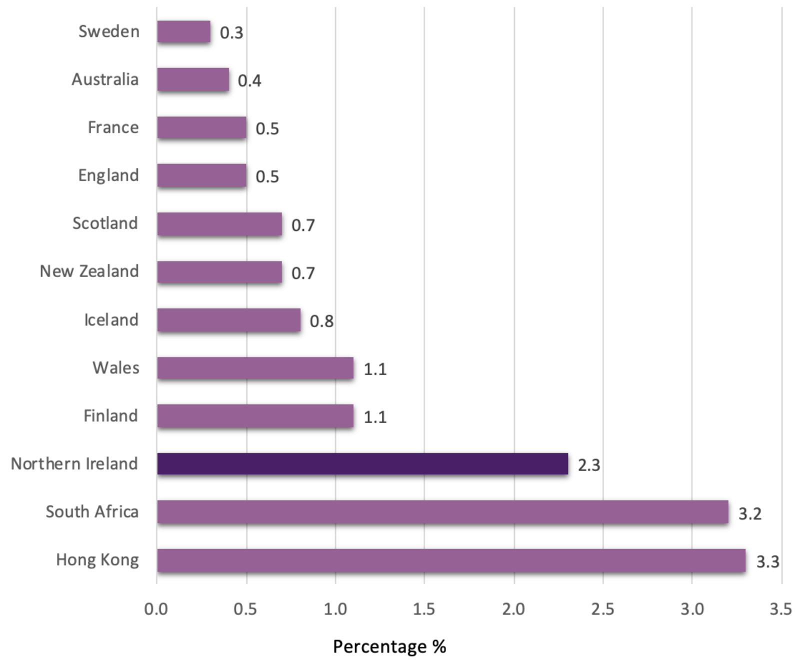


Figure 20: Comparison of PGSI Scores Globally
**Source:** Department for Communities [2017]

Figure 20 shows that prevalence rates of problem gambling in these countries vary from 0.3% to 3.3%, with the average rate across all countries being 1.2%. On the contrary, the analysis of 94 separate studies in 30 different countries obtained from the Alberta Gambling Research Institute in Canada demonstrated that there are wide variations in problem gambling rates across different countries in the world, from 0.5% to 7.6%, with the average rate across all countries being 2%. The Alberta Gambling Research Institute's analysis is based on calculations to standardise problem gambling prevalence rates. Each study uses different methodological procedures, screening instruments and time frames which makes it difficult to compare such studies directly. Figure 21 demonstrates at least an indicative mapping of problem gambling rates worldwide.

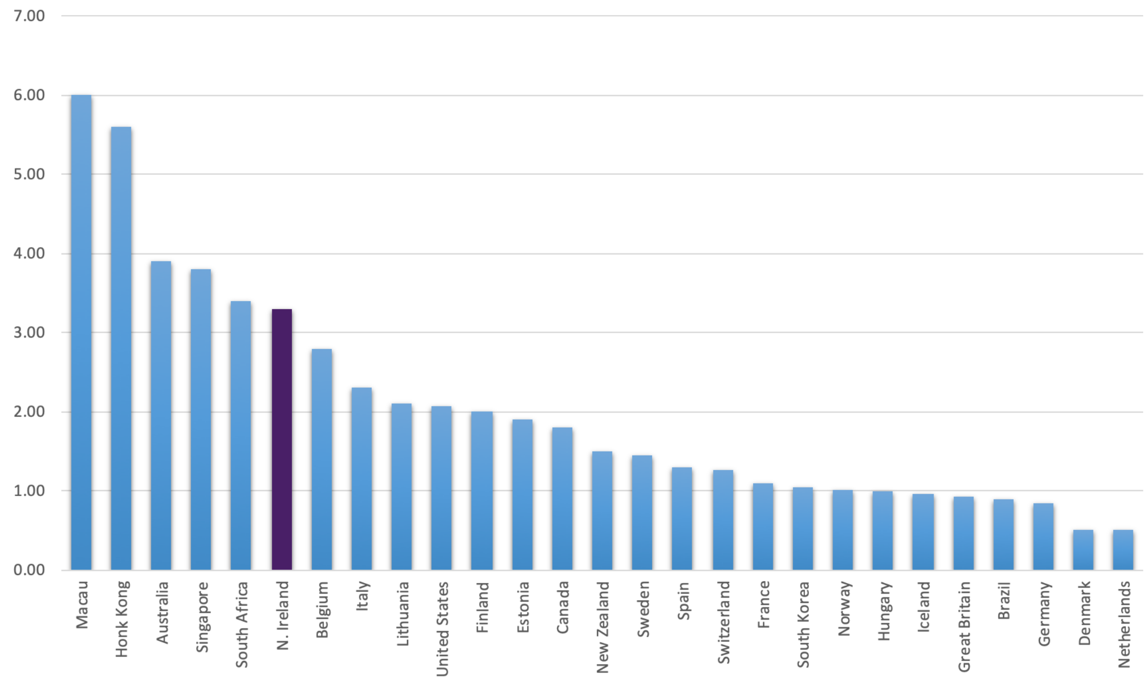


Figure 21: Gambling Problem Prevalence Rates Worldwide
**Source:** Alberta Gambling Research Institute [nd]

Despite some variations in problem gambling prevalence rates, there are some consistent results concerning socio-demographic characteristics. Problem gambling is more prevalent among men, individuals of a younger age (under 30 years) and single individuals or divorced people (Calado and Griffiths, 2016, Department for Communities, 2017, Abbott et al., 2018). Additional characteristics include individuals unemployed or with a low income, individuals with a lower level of education and individuals that belong to an ethnic minority (non-Caucasian ethnicity) (Calado and Griffiths, 2016, Abbott et al., 2018).

The discrepancy of gambling problem prevalence rates between Ireland and Northern Ireland along with the fact that the material for Ireland collected in 2014/2015 was published only four years later, raise questions about the contemporary reliability of the data. Further, H2 Gambling Capital published data in 2016, revealing Ireland had the third-highest per capita rate of gambling losses in the world (behind Australia and Singapore). Per resident adult, Ireland lost about $500 US on different forms of gambling. As a country, gambling losses totalled $2.2 billion US dollars, with half of those losses arising from online gambling [The Economist, 2017].

Based on previous evidence, Sinn Féin [2019] considers the 2014/2015 Irish survey data outdated and not a good enough evidential base for public policy-making. Sinn Féin asserts that "what is needed is a dedicated problem gambling survey with a straight comparison with the north, with Scotland, with Wales, and with England" (2019, p. 9).

Even if the survey is out of date, one essential finding is the apparent prevalence of problem gambling in young males (2.9% in males aged 25-34 and 1.9% in males aged 18-24) [Department of Health, 2019]. Results seem to confirm similar findings in other jurisdictions and also underlines the necessity for further more granular and more frequent research on this age cohort.

In the UK, for example, the Avon Longitudinal Study of Parents and Children (ALSPAC)[9] is

[9] "ALSPAC Gambling Study", University of Bristol, http://www.bris.ac.uk/academic-child-health/research/research/addictive-behaviour/gambling-in-young-people/

currently investigating gambling behaviour and problem gambling in the in 17-24-year-olds.

Some studies have found that harmful gambling is related to certain occupations [Abbott et al., 2018]. However, the relationship between gambling and occupations, related job stress or unemployment, needs further research. Most studies only examine the annual household income and do not consider the full spectrum of people's assets concerning their gambling behaviour [Abbott et al., 2018]. One area that has received recent research interest is the relationship between gambling, problem gambling, and homelessness (Nower et al., 2015; Rash and Petry, 2016; Sharman and D'Ardenne, 2018).

Since at least 2013, problem gambling has been an increasing concern in the public health sphere in Ireland. Stakeholders, health practitioners and researchers (Subramanian, 2014; O'Gara, 2018; Sinn Féin, 2019) advocate for official recognition of gambling as a public health issue and the updating of the gambling regulatory framework. Our work indicates this needs to be accompanied by both quantitative and qualitative sociological and health-related research in order to more accurately gauge the wider societal impact of problem gambling in Ireland.

# 4 Approaches to Understanding Gambling Harms

## 4.1 Theoretical Approaches

This section presents the key theoretical approaches from the medical-psychological and sociological perspectives, which attempt to explain the nature and development of problem gambling. These models emerged from our ongoing review of international gambling literature.[10]

The medical and psychological approaches include models that tend to focus on individual factors, i.e., biological, cognitive and psychological. In this category, we have classified the 'Pathway model of problem and pathological gambling' [Blaszczynski and Nower, 2002]. This well-known model delineates three different pathways leading to the development of three subgroups of problem gamblers: behaviourally conditioned, emotionally vulnerable, and 'antisocial impulsivists.' This model integrates approximately 25 factors in total, most of which are psychological and biological, such as childhood disturbance personality, depression, anxiety, life stresses, substance abuse, impulsivity, subjective excitement, irrational beliefs and the illusion of control. The model includes two 'ecological' factors - increased availability and increased accessibility to gambling - which are common to all pathways and, at a basic level, causally influence other factors.

Another model in this category is the 'Impulsivity and pathological gambling' [Nower and Alex, 2006]. This descriptive model predicts that dysfunctional impulsivity is the cause of some peoples' gambling problems. It assumes the presence of several important psycho-biological factors and a cyclical process involving impulsivity, gambling behaviour, subjective and behavioural reinforcement, affective interpretation, and cognition. The reinforcing factors include social rewards gained in gambling environments.

These models have been criticised for their limitations in explaining the multifaceted nature of gambling behaviours and the importance of the individuals' social environment. Thus, some models include, or attempt to include, the social aspect of gambling. These models are usually referred to as 'biopsychosocial' and, they endeavour to explore the interconnection between biology, psychology, and socio-environmental factors.

In this category, we classified the 'biopsychosocial cognitive–behavioural model of pathological gambling' (Sharpe and Tarrier, 1993; Sharpe, 2002). This cognitive-behavioural model of problem gambling adopts a bio-psychosocial perspective and integrates diverse research areas. This model proposes that the causes for gambling problems are biological (e.g., the dopaminergic, noradrenergic, and/or serotonergic system), psychological (e.g., gambling attitudes, impulsivity, stress), and social (e.g., environmental circumstances). This model is an empirically derived model that is intended to provide individual treatments and encourage further research on the interactions between different factors.

A variation of this model is adopted by Griffiths [2005], who have postulated an addiction components model within a biopsychosocial framework. Griffiths's model considers addictions consist of some standard components (i.e., salience, mood modification, tolerance, withdrawal, conflict and relapse). At the same time, from his view, addiction is the consequence of biopsychosocial processes rather than from an addictive personality perspective.

Despite efforts to present a comprehensive model, the literature on gambling is dominated by models that focus on the individual. Although gambling addiction is seen as the consequence of a combination of a person's biological/genetic predispositions, psychological components and exposure to particular social contexts, the majority of the research examined to date has emphasised the first two factors.

In response to the relative lack of studies from a sociological perspective, Bernhard [2007] proposed a 'biopsychosocial-sociological' model. This model includes biological, psychological, and social factors that influence gambling participation. The concept of the 'sociological imagination' is employed to understand causal factors as well as the effects of gambling problems and, thus,

[10] This is a selected sample of model being developed.

provide better clinical treatment. This model considers that the excessive gamblers' life problems are sociological, rather than merely individual. This awareness increases the person's chances of recovery. However, this model still focusses on the individual level instead of explaining the impact of gambling at a societal level.

A similar model is the 'psycho-structural cybernetic model' [Zangeneh and Haydon, 2004]. This model proposes that problem gambling behaviour is caused by the interaction between two components. One is located within the agent (or individual), comprising psychology and biology. The other is external and structural, including culture, broadcast agents, economic disparity, political/public health policy and community structure. These two components interact in a myriad of ways. The result of this interaction is the creation of social knowledge which is learned by individuals and incorporated into their behaviour.

The socio-environmental approaches include models proposed by sociologists and anthropologists to understand gambling at the societal level. In this category, we include the 'Theoretical model of gambling behaviour' [Ocean and Smith, 1993]. This sociological model integrates structural and cultural factors with gamblers' individual characteristics. Structural conditions, also referred to as social rewards (i.e., group affiliation, emotional and moral support, self-esteem, social status and salient identity), generate an attachment to the gambling institution (e.g., casinos). The gambler's commitment to a gambling institution is reinforced by conflicts elsewhere in society (i.e., loss of outside social networks and 'disculturation') and the stigmatization resulting from intense involvement in gambling. A regular gambler from a disadvantaged background may be more committed to the gambling institution and more prone to problem gambling.

Another interesting model is the 'Motivational model of gambling participation' [Per, 2013]. This anthropological model comprises five motivational dimensions: the dream of hitting the jackpot and transforming one's life, social rewards, intellectual challenge, mood change induced by playing, and – the fundamental motive for all gambling – the chance of winning. This model is different from the previous models because it is concerned more about why people find it at all worthwhile to gamble, rather than explaining why some people gamble just a little and others far too much. This model is primarily applicable to leisure gambling in contemporary western societies but also helps us understand problem gambling. The model integrates the wide variety of motives individuals have for gambling and makes it possible to understand the specific appeal of gambling, relative to other leisure activities. The model also connects the psychological and biological process with cultural meanings and settings.

Finally, we present the 'Conceptual framework of harmful gambling' [Abbott et al., 2018]. This framework is based on a meta-review of the work of researchers working on gambling harms and analysis of most of the theoretical models outlined above. Many factors have been identified for gambling participation and problem gambling. Abbott et al. [2018] provide two overlapping models. The first one includes general factors such as biological, psychological, social and cultural. The second one includes specific factors such as gambling environment, gambling exposure, gambling types and gambling resources. Their list of factors was presented in section 2.3.

## 4.2 Gambling Research in Ireland

Gambling, and its individual and collective social impact, are an increasing concern in Ireland. However, over the past twenty years, there has been minimal large-scale public policy or academic research on gambling behaviour and its impact. We have analysed the extant Irish gambling research within the two general research frames we used to analyse the international literature: medical-psychological and socio-environmental. The very limited Irish research on gambling to emerge to date aligns with international trends in focusing more on the medical-psychological than the socioenvironmental factors.

### 4.2.1 Medical-Psychological Perspectives

The St. John of God Hospital (SJGH) Research Group is the only group dedicated to researching problem gambling in Ireland. Dr Colin O'Gara is a consultant psychiatrist and head of the SJGH research group within the School of Medicine at University College Dublin. Dr O'Gara and his team conduct research in many areas of gambling-related problems mostly referred to as 'gambling addiction' or 'gambling disorder' [O'Gara, 2019, p. 67]. The areas of research include gambling service provision, gambling stigma, responsible gambling initiatives, online gaming by children and gambling advertising in Ireland. The research team collaborates closely with Professor Mark Griffiths and the International Gaming Research Unit at Nottingham Trent University, UK, a highly cited international research team.

The SJGH Research group has conducted a series of empirical studies in the Irish context including a national survey of online gambling behaviours [Columb and O'Gara, 2017], which was published in late 2017 in the *Irish Journal of Psychological Medicine*. The online survey analysed the responses of 208 gamblers in Ireland between December 2014 to June 2015 on a) what online gambling activities people are engaging with/in; b) the reasons for choosing to gamble online; c) their attitudes to online gambling and; d) the financial and mental consequences of online gambling. The study found that the most popular activities were horse racing, sports betting and greyhound racing among both regular and occasional gamblers. The most popular devices that they use to gamble are mobile apps. The main reason for gambling online was the prospect of winning money, but access appears to play an important role in the use of online gambling. The study also reported that 74.5% of respondents stated that online gambling had caused financial problems in their household.

In 2018, the SJGH research team investigated service provision around problem gambling in Ireland [Columb et al., 2018]. Their research found that a potentially large number of people with gambling problems were not being identified and treated. This is due to the great disparity in how the Irish healthcare system treats referrals of individuals with suspected gambling problems. The study also reported the need for more specialists in addiction to assess and manage gambling disorders effectively. O'Gara [2019] argues that problem gamblers have to access generic addiction services, instead of receiving specialised treatment for gambling disorder.

O'Gara's research team has also analysed the range and scope of responsible gambling tools across different online gambling operations in Ireland [Cooney et al., 2018]. The study evaluated 39 Irish gambling websites in total and compared them with non-Irish gambling websites. The main findings demonstrated that the majority of operators have a responsible gambling webpage and most of these websites offer some type of responsible gambling tool (i.e., spending limits, self-exclusion, cooling-off periods, reality checks, etc.) to minimise harm from problem gambling. The findings of this study also suggested, however, that Irish gambling websites generally exhibit poor performance in comparison with their non-Irish counterparts in the provision of responsible gambling (RG) practices. Many of these websites need to improve their responsible gambling features, especially "in the area of behavioural feedback tools, age verification, and limit-setting, to facilitate robust consumer protection within the online gambling community" [Cooney et al., 2018, p. 10].

A related piece of research investigated online gaming and gaming disorders [Columb et al., 2019]. In this study, it is suggested that online gaming has the potential to be addictive, in the same way as gambling, alcohol and drugs. Gaming addiction is then conceptualised as a disorder. Therefore, one of the main purposes of this study is to describe the characteristics of gaming disorder and the available treatments in the country. In addition, this study briefly discusses the interrelationship between gaming and gambling through the use of 'loot boxes'.[11] Although there is still debate around whether virtual loot boxes represent a form of gambling or not, Ireland has labelled loot-boxes as a form of game [Columb et al., 2019].

Finally, O'Gara [2019] published a book, *Gambling Addiction in Ireland*, which summarises the

[11] They are visual representations that reward the player with random objects, usually contained in boxes, chests or packs.

research findings of his group and explores the causes of problem gambling, its consequences for individuals, families and society. In this book, gambling disorder is considered a "mental illness" [O'Gara, 2019, p. 26], which has to be identified, diagnosed and treated, depending on the level of severity of the symptoms. Within the book, O'Gara presents a number of case studies to show: a) different categories of severity of gambling disorder, b) the process and stages of addiction recovery and c) the treatment and support services available for this mental health condition. In general, the focus of this book is to create awareness of this growing problem in Ireland and to encourage the creation of specialised treatment services and research facilities.

As we have seen in section 4.1, most existing models of gambling problems focus on psychological and biological factors. Although the research in this perspective recognises the influence of structural/sociological factors, the focus on health/addiction tends to be dominant, not only in Ireland but internationally.

This is evident in a recent conference paper on the relationship between sports and problem gambling. In recent decades sport has become increasingly associated with gambling, with platforms emerging offering betting on virtually every form of professional sports and many televised sporting events punctuated with advertising for associated betting companies or specific products. The sponsorship of sports events by betting companies has also become a matter of controversy in many jurisdictions. Murphy [2019] investigates this relationship through a case study of an amateur sporting organisation (Gaelic Athletic Association – GAA) in Ireland.

The gambling-related problems within GAA circles have come to prominence in recent years with several GAA players (e.g., Oisin McConville,[12] Niall McNamee,[13] Cathal McCarron,[14] David Glenon,[15] and others[16]) publicly acknowledging their problems with gambling. Therefore, the main purpose of Murphy's research was to understand the extent of problem gambling among young players in the GAA and what actions could be undertaken to tackle this issue. Murphy [2019] conducted focus groups and semi-structured interviews with GAA players in Cork Institute of Technology, Cork, Ireland, as well as interviewing leading members of the GAA, Gaelic Players Association (GPA) and addiction counsellors. For his analysis, he used the Health Belief Model (HBM), which is a model derived from the fields of health psychology and health education. The model seems to have the potential to explain the (individual) addictive disorder gambler's behaviour but is much more limited in its capacity to understand the broader risk factors for problem gambling within the GAA.

Problem gambling is a multifaceted phenomenon and the psychological/health issue constitutes only one part of the problem. This reveals an imperative - to develop a more comprehensive model that includes the sociological/anthropological aspect and thus, to capture the complexity of the situation evolving in both amateur and professional sports (and other spheres). Thus, further research should be done in/on a broad range of sports with a view to comparing whether problem gambling differs between different sports.

[12]Former GAA star Oisin McConville on his gambling addiction: 'I felt as if the walls were closing in on me and I became suicidal', Irish Independent, 20 December 2014, https://www.independent.ie/life/health-wellbeing/health-features/former-gaa-star-oisin-mcconville-on-his-gambling-addiction-i-felt-as-if-the-walls-were-closing-in-on-me-and-i-became-suicidal-30851965.html

[13]Niall McNamee: I sold my car and lost €8,000 in one day due to gambling addiction, Irish Independent, 4 July 2009, https://www.independent.ie/sport/niall-mcnamee-i-sold-my-car-and-lost-8000-in-one-day-due-to-gambling-addiction-29754228.html

[14]Paul Kimmage meets Cathal McCarron: 'Until I go to the grave, I will be battling this disease', 30 October 2016, https://www.independent.ie/sport/columnists/paul-kimmage/paul-kimmage-meets-cathal-mccarron-until-i-go-to-the-grave-i-will-be-battling-this-disease-35172612.html

[15]'I was a compulsive liar. I was a thief. I was doing whatever I could to con people', The Journal, 29 May 2018, https://www.thejournal.ie/davy-glennon-anonymous-donor-4042012-May2018/

[16]'GAA players betting is rampant...I even bet against my team', Irish Independent, 13 May 2016, https://www.independent.ie/irish-news/gaa-players-betting-is-rampant-i-even-bet-against-my-team-34710903.html

### 4.2.2 Social and Cultural Perspectives

Academics from the discipline of economics were amongst the first scholars to undertake research on gambling in Ireland. In this category, we found three journal articles (i.e., Purfield and Waldron, 1999, Crowley et al., 2012 and Eakins, 2016).

Purfield and Waldron [1999] examined fluctuations on the National Lottery (Lotto) sales and of fixed-odds betting on the Lotto draw – in the form of Lucky Numbers in Ireland or Lucky Choice in the United Kingdom – to determine whether side betting on the Lotto draw diverts money from the beneficiaries of the National Lottery. The Lotto began in Ireland in 1988, but it was not until 1990 that Irish betting shops started introducing fixed-odds bets on the result of the Lotto draw. In 1995, the Irish National Lottery reported that this secondary market was affecting its sales and consequently lobbied unsuccessfully to make this practice illegal. In 1997, the Irish National Lottery introduced its own fixed-odds game, Lotto 5-4-3-2-1. The main motivation behind this empirical analysis by Purfield and Waldron was to establish whether side betting on the Lotto draw diverts money from the National Lottery. The authors found that consumers appear to complement their Lotto purchases with Lucky Numbers bets. This means that side betting on the outcome of the Lotto has no impact on the Lotto sales.

In another study, Crowley et al. [2012] examined the determinants of lottery participation and expenditure and the incidence of the implicit lottery tax. The authors use a 'double hurdle model' of various socio-economic and socio-demographic indicators to identify the determinants of Irish households' participation in, and expenditure on, the lottery, using data from the Irish Household Budget Survey of 2004/2005. The authors found that gender, social class, marital status, the presence of children in the home and household size significantly affect lottery participation. Lottery expenditures are affected by income, location of the household, gender, age, education, social class and whether the household has positive betting expenditures. Furthermore, evidence shows that those who play the lottery are from lower socio-economic backgrounds, and lottery expenditures represent a regressive social tax.

Drawing from the previous study, Eakins [2016] conducted further research on this subject. The author studied household gambling expenditures, with a focus on bookmaker/tote betting and the National Lottery and the effects of the most recent recession on these expenditures using the Irish Household Budget Survey (HBS). He found that households with an older and less educated head of household participate in, and spend more on both forms of gambling than those households with children. There is also evidence to suggest that households with an unemployed head of household have a higher likelihood of participation in gambling. The post-2008 recession affected gambling in different ways. Bookmaker/tote expenditures changed "from a necessity to a luxury good, while lottery expenditures increased their necessity status" [Eakins, 2016, p. 211]. According to Eakins [2016], this can be explained by the fact that playing the lottery requires less time, knowledge and risk and has potentially greater benefits attached to it in comparison to bookmaker/tote betting.

The authors of these papers focus on the National Lottery and bookmaking bets, but other markets in Ireland still need to be studied such as online gambling, gaming and casino games. Additionally, there are no studies about the horse and greyhound industry, despite this being one of the largest markets and employers in the country.

Furthermore, these papers are concerned with the revenues generated by the National Lottery, but not much information about how these funds are used. Usually, lotteries are perceived as a less harmful means of raising revenue for governments, but there is no comparison with other markets to support this. Academics from the field of communications and information studies, and the discipline of sociology, have begun to research gambling and its impacts from a socio-environmental perspective: Dr. Crystal Fulton (Fulton, 2015; Fulton, 2017; Fulton, 2019b; Fulton, 2019a), Dr. Cormac McNamara (Mc Namara, 2017; Mc Namara, 2020), Flood [2000] and Hanratty [2015].

Dr Crystal Fulton is an Associate Professor at the School of Information and Communication studies at University College Dublin. She published *Playing Social Roulette: The Impact of Gambling on Individuals and Society in Ireland* in 2015. This is an exploratory, ethnographic research project focused on the social impact of gambling and problem gambling. This study collected and compared data from four different types of participants: 1) ten interviews with addiction service providers' representatives, who currently work with gamblers and/or their families; 2) twenty-two interviews with gamblers located throughout Ireland; 3) twenty-two interviews with family members or friends of the gamblers, and 4) a focus group with seven gambling industry representatives [Fulton, 2015]. This report provided an in-depth understanding of gambling behaviour, in particular problem gambling, and its social outcomes in Ireland. In terms of gambling behaviour, Fulton found that gamblers shared common behavioural experiences such as the rationalisation of their gambling (e.g., explain away losses and unpaid bills, and to control the people and environment around them so that they could continue to gamble) and the secrecy role in the development of problem gambling. Furthermore, the study also analysed the impact of technology (e.g., the use of different devices for online gambling) and social impact (e.g., family and social network conflicts) of their excessive gambling behaviour. An important finding was that problem gamblers often started gambling as teenagers, which revealed further research is needed to understand how under-age people secure access to gambling platforms, the socialisation of young people and the role and place of gambling in Irish society.

Later in 2017, as a complement to the previous study, Fulton published a report about literature published on developments in gambling between 2013 and 2017. This report identified numerous gambling developments and legislative trends in Ireland [Fulton, 2017]. In terms of international legislation, Fulton found that online gambling became an important global phenomenon with great impact on gamblers and their families. Based on this finding, Fulton prompted governments to update legislation and to establish a licencing regulatory framework to target online gambling activities. This report also found that the gambling industry has seen significant merger activity, as a means of combating increased licensing costs and online competition. Furthermore, Fulton found that restrictions on gambling advertising do not always extend to online adverts or promotions through social media. Finally, this report also mentioned the lack of public services on offer to those with a gambling problem. The existing services are mostly funded by the gambling industry.

These reports are important because they provided an overview of the situation in Ireland, the very significant gaps in the knowledge base and the necessity for further research in specific areas. Fulton's findings arrived at a crucial moment when politicians, health workers, civil society actors and academics were asking for gambling to be better regulated. Fulton's research served as foundational evidence for policy and legislative development in the country. On April 17, 2019, she was invited to appear before the Oireachtas Joint Committee on Justice and Equality and answer questions on the regulation and control of the gambling sector [Oireachtas, 2019c].

Fulton continued her research and published two peer-reviewed journal articles in 2019. In Fulton [2019a], the author analysed the data obtained from ethnographic observation in addiction treatment centres together with in-depth interviews with different participants, including addiction counsellors, recovering gamblers, and gamblers' social connections. This paper summarised the participant's perspective on the needed reforms and social initiatives in Ireland surrounding gambling addiction. This concluded that the social impact of harmful gambling is much wider, affecting gamblers, families and the broader community. She again emphasised the need for legislation and policy development in Ireland to address gambling harms. Fulton also mentioned the need for studying new technologies facilitating and accelerating gambling issues.

In Fulton [2019b], the author explored the social impact of "non-sharing information behaviour" in the gamblers' life and social relationships. By non-sharing information behaviour, Fulton refers to the action of withholding or hiding of information from other people. This study analysed 22 in-depth interviews with gamblers together with their social connections, either family members or friends between 2014 and 2015. The study revealed this behaviour had negative outcomes for individuals and their families. According to Fulton, "understanding how secrecy functions in decision making can help create awareness around risky circumstances, offer approaches to reduce harm, and inform regulatory and social reforms to protect those who are vulnerable or who have been affected negatively" [Fulton, 2019b, p. 156].

Dr Cormac Mc Namara, a sociologist and PhD graduate from Trinity College Dublin has also published on gambling in Ireland. In 2017, he received his PhD for research on *The Betting Shop: A Sociological Perspective*.[17] The same year, he published his findings in the journal *Symbolic Interaction* and in 2020 in his book *Gambling, Losses and Self-Esteem: An Interactionist Approach to the Betting Shop*. In a 2017 journal article, McNamara focused on the actions and interactions of regular customers of betting shops; specifically, how these customers explain betting failures. The data were obtained through the use of participant observation with customers and staff in betting shops in Dublin. He used the 'responsibility-shifting' concept to refer to the customer's explanation of their monetary losses. According to him, customers go through a process of shifting responsibility onto external factors such as a) the uncertainty of the outcome of races and b) the attribution of blame to others. This comes about through a "process of self-reparation of self-esteem" so that customers are able to continue enjoying "off-track betting" as a leisure form [Mc Namara, 2017].

McNamara's [2020] book expands upon the concept of study 'responsibility-shifting'. From a symbolic interactionist approach, he continued his discussion on the collective process of modes of restoration of self-esteem in the contemporary betting shops. He also considered betting advertising announcements, which happen throughout the day in betting shops, and how these contribute to customer behaviour and the significance of an atmosphere of inclusion and belonging [Mc Namara, 2020]. There is, however, little discussion of problem gambling in the book.

Jonathan Flood is a former Master student at the Department of Sociology at Maynooth University. His MA thesis provides a small-scale sociological account of gambling in the betting shop environment [Flood, 2000]. The main purpose of this study was to delineate the existence of a gambling subculture in Ireland and explore the positive social implications for its members. For example, betting shops provide a place of enjoyment and for socialisation, but also a means of belonging to a social network. The author collected data using participant observation in two bookmakers located in Carlow, Ireland. His analysis compared the actions, interactions, and behaviours of participants in these two betting shops.

Both studies, Flood [2000] and Mc Namara [2020] used participant observation as their method to collect data in betting shops. Sociologists who use qualitative research methods generally include other methods to complement and minimise its theoretical disadvantages/limitations. Although observation is a convenient method to record behaviours in a natural setting, this method has a low degree of reliability. These studies do not provide information on the criteria employed for selecting betting shops and/or observing gamblers. Flood [2000] expresses his appreciation of gambling and his clear intention is to highlight the positive characteristics of gambling in Ireland. Nevertheless, both sociological accounts provide insights about gambling in betting shops. Flood [2000] introduces readers to the Irish betting shop environment and provides descriptions about betting shop context, gambling motivations, and identity. Meanwhile, Mc Namara [2020] helps to understand the gambler's strategy for explaining monetary losses and how this behaviour is shaped by the shop environment.

Finally, Hanratty [2015] is a former student at the Department of Marketing at the National College of Ireland. The author explored the attitudes and behaviours towards gambling of four male gamblers aged 18-25 years old in the Dublin area. The author collected data using semi-structured interviews with four participants. The low number of participants again suggests a relatively low degree of reliability. Additionally, this study explored only the gamblers' opinions about gambling and gambling-related issues, rather than the gambler's behaviours. However, we should consider larger samples in order to generalise the results.

These research projects studied gamblers and gambling environments like betting shops, but we still know little about the meanings and values affecting the prevalence of gambling in Ireland. There is a paucity of information about social perceptions, stigmatization or gender differences in gambling. Finally, some researchers mentioned the prevalence of gambling in young people, but none

[17] This doctoral thesis is not available at the moment in the TCD catalogue nor via ProQuest Theses and Dissertations databases.

has researched this area specifically. Also, the effect of gambling on family, friends and community should be studied to understand the wider social impact of gambling behaviour.

The papers presented in this section have given an overview of the gambling research carried out in Ireland. Most gambling scholarship has focused on medical-psychological accounts of gambling behaviour, and the economic perspective mainly analyses lottery and bookmakers. There are very few social and cultural accounts of gambling, little on the gambling industry, and very little on young people and gambling. The existing sociological accounts are very small scale. These is little on the prevalence of gambling and gambling-related problems in the country. Therefore, further prevalence studies and more large-scale research is needed to understand gambling in the Irish context.

# 5 International Regulation and Public Policy

## 5.1 Gambling Legislation and Regulators

Many religious traditions and ethical systems consider gambling to be a moral issue, and about six-in-ten people consider gambling to be an unacceptable practice, according to a global survey conducted by Pew Research in 2014.[18] This figure exhibits considerable fluctuation by region. Fully 95% of Pakistani people hofld this view and big majorities deem the practice unacceptable across much of the Middle East and Africa. However, a quarter or fewer in France (13%), Canada (23%), and the US (24%) say gambling is an unacceptable practice. Conversely, Japan (38%) has the highest rate of acceptance of gambling. Horse racing has become more and more popular in Japan over the past 20 years and Japanese punters bet vast amounts of money on the key races in the Japanese racing calendar. However, the lowest figures reported in France (and other European countries such as Spain and the UK), Canada and the US seem to coincide with the legalisation and expansion of the gambling industry across the world since the mid-twentieth century. On the contrary, most Islamic countries formally prohibit gambling of any kind. Even allowing for such surveys there is relatively little data to satisfactorily compare across jurisdictions.

In the past, negative views of commercial gambling dominated the political agenda in many jurisdictions; often it was prohibited with limited exceptions for small-scale lotteries, raffles and bets organised for charity purposes [Sulkunen et al., 2019]. Although prohibitions are still the official policy in many countries, the situation is changing rapidly [Sulkunen et al., 2019].

The main argument for legalising gambling is to bring gambling under government control, to tackle gambling-related crimes – including money-laundering and tax evasion –, to control (illegal) online gambling [Nikkinen, 2014] and to ensure consumer protection, including adherence of gambling companies and entities to responsible gambling codes and providing safe gambling environments for those who want to gamble [Sulkunen et al., 2019]. In addition, governments have taken an increasing interest in gambling as a source of revenue to boost economic growth, generate jobs and generate much-needed tax revenue to pay for increasingly pressurised public services [Egerer et al., 2018]. However, the advantages of legalising national markets may be misleading. According to Egerer et al. [2018], the type of jobs generated by the gambling industry tends to be low paid. Additionally, the taxation effects of gambling are regressive or even exploitative, and this situation does not contribute to the overall wellbeing of the community [Egerer et al., 2018].

Some studies have found that up to 60% of gambling revenues derive from problem gamblers [Egerer et al., 2018]. The Victorian Problem Gambling Foundation found that in 2014-15, the cost of problem gambling in Australia totalled AUD7 billion [Browne et al., 2017]. The research categorised the types and quantified costs of gambling harm as follows: family and relationship problems (AUD2.2 billion); emotional and psychological issues, including distress, depression, suicide and violence (AUD1.6 billion); financial losses through, for example, excessive spending on gambling, bankruptcy and illegal offshore gambling (AUD1.3 billion); costs to the Victorian government, such as research, regulation, and professional support services, including mental health and homelessness services (AUD1.1 billion); lost productivity and other work-related costs (AUD600 million); costs of crime (AUD100 million). If we consider that the Victorian government accrues roughly AUD6 billion a year in tax revenue from gambling, it appears that it does have a negative net effect on society, or (viewed more narrowly) at least on the state's balance sheet.

The legalisation of regional or national gambling markets does not eliminate illegal betting activities or eliminate corruption, crime or fraud [Sulkunen et al., 2019]. In addition, the increased flows of gambling-related revenues to governments are often cancelled out by the offshoring of profits, and the need for increased spending on public services to tackle adverse individual and collective outcomes of problem gambling [Sulkunen et al., 2019]. The individual and societal costs of gambling

[18] "Global Morality", Pew Research Center Global Attitudes & Trend, 15 April 2014, https://www.pewresearch.org/global/interactives/global-morality/

should be set against the realised tax revenues and employment from the sectors [Sulkunen et al., 2019].

Each gambling jurisdiction organises its gambling services through a regulatory framework. This includes the operation of a state monopoly in some cases, a licensing system or by another arrangement [Nikkinen, 2019]. The most popular framework chosen by countries to regulate the gambling industry is through licensing [Nikkinen, 2019] and approximately 22% of gambling operators are public monopolies [International Association of Gaming Regulators, 2019a].

Some jurisdictions allow all gambling types, while others only allow certain types such as lotteries, betting, or casino games. The International Association of Gaming Regulators (IAGR) –formed by representatives from gambling regulatory organisations throughout the world– conducted a survey among 44 jurisdictions between 2018-2019. The IAGR's report (2019a) shows that, at a global level, lotteries and bingo (100%) constitute the largest permitted land-based gambling market (allowed by 100% of respondent jurisdictions), followed by casinos (95%) and betting (92%). Whilst betting constitutes the most significant online gambling market (allowed by 67% jurisdictions), followed by lotteries and bingo (63%) and casinos (38%).

Most countries establish one or more gambling regulatory authorities to be responsible for the comprehensive licensing and regulation of gambling activities. The specific roles that these gambling regulators play vary greatly from jurisdiction to jurisdiction. However, most of them demonstrate at least some concern with addressing problem gambling (86% of jurisdictions work on problem gambling issues and 45% on gambling addiction issues) and ensuring consumer protection, according to the most recent International Association of Gaming Regulator's (2019b) survey.

## 5.2 European Legislation and Regulation

There is no legislation that standardizes gambling throughout Europe, mainly because the EU lacks the legal authority to develop common standards. European Union member states have exclusive competence over the gambling operations within their individual national jurisdictions, as long as they comply with the fundamental freedoms established under the Treaty on the Functioning of the European Union (TFEU), as interpreted by the Court of Justice of the EU.[19]

Today, the most popular regulatory framework in Europe is the multi-license system –that allows more than one operator to offer services on the market–, according to the European Gaming & Betting Association (EGBA)'s most recent publication. Figure 22 shows an overview map contained in the EGBA website, published in April 2019. In 2009, only five European countries had multi-license regimes, where the rest had monopolistic regimes or prohibitions. In 2019, the situation has changed dramatically, with multi-license regimes having been adopted in 26 EU member states. Only 1 EU member state (Finland) still retains an exclusive monopoly model and 1 EU member state (Slovenia) has no online gambling regulations at all.

The collective body of national and regional gambling regulators in Europe is known as the Gambling Regulators European Forum (GREF) and it provides a list of such jurisdictional regulators in Europe. See table 7

## 5.3 Irish Gambling Legislation

The entities responsible for gambling licensing and regulation in Ireland are the Department of Justice and Equality and the Revenue Commissioners. Over the last number of years, there have been moves to update the legislative and regulative structures surrounding gambling culminating in The Gaming and Lotteries Amendment Bill 2019. The implementation of this bill is ongoing but was disrupted by the February 2020 general election and the long period which was needed to form a new government.

[19]"Online gambling in the EU", European Commission, https://ec.europa.eu/growth/sectors/gambling_en

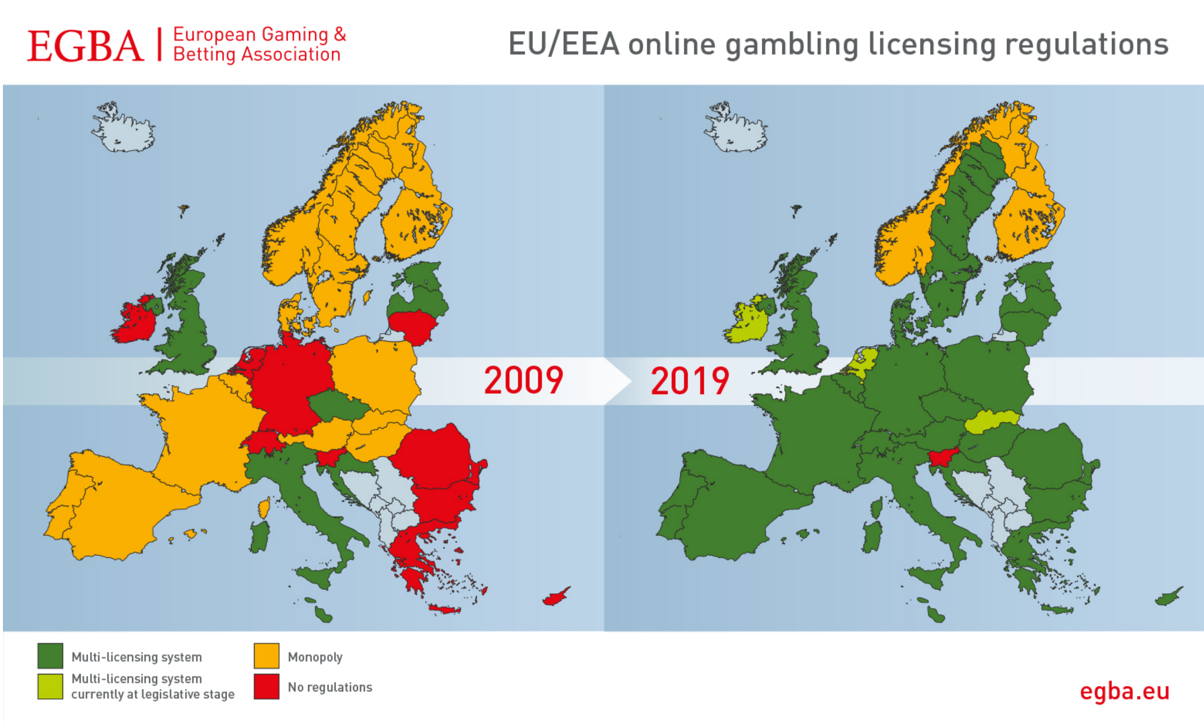


Figure 22: Gambling Regulation Models
**Source:** EGBA

In 2006, the Department of Justice, Equality and Law Reform initiated the Casino Regulation Committee, and two years later, there was a review of gambling legislation in Ireland for the first time. The Casino Regulation Committee [2008] issued the report *Regulating Gaming in Ireland*, which explored the implications of casinos operating in Ireland and the advent of internet gambling. The report made a series of recommendations and urged the establishment of a gaming regulatory authority with powers to licence, regulate and prosecute operators with severe penalties for breaching regulations.

On 9 July 2013, the Irish Government approved the drafting of the Gambling Control Bill 2013 [Department of Justice and Equality, 2013] which would replace all current gambling legislation, the Betting Act 1931 and the Gaming and Lotteries Act 1956. It would introduce an extensive new licensing process and a regulatory body (the Office for Gambling Control Ireland) to enforce compliance. The General Scheme was referred to the Office of the Parliamentary Counsel in July 2013, but drafting has not proceeded [Department of Justice and Equality, 2019]. Five years later, on 10 January 2018, the Government approved the updating of the 2013 General Scheme of the Gambling Control Bill. The proposed updating was tasked to an Inter-Departmental Working Group on the Future Licensing and Regulation of Gambling, chaired by David Stanton, the Irish Minister of State for Equality, immigration and integration in the Department of Justice and Equality [2019, p. 3].

In March 2019, the Working Group published its report [Department of Justice and Equality, 2019]. The report contained several significant recommendations concerning all forms of gambling in Ireland. It recommended a comprehensive update of the Irish licensing system and the establishment of a new independent regulatory authority for gambling. According to David Stanton, all the responsibility currently possessed by local authorities and other bodies concerned with gambling regulations will be transferred to the new gambling regulatory authority [Oireachtas, 2019b]. In addition, this legislation proposed a 'Gambling Social Fund' for the support of addiction treatment services, and research and education, with the central objective of promoting socially responsible gambling and assisting in counteracting the impact of problem gambling in Ireland [Department of

Justice and Equality, 2019].

The Gaming and Lotteries Amendment Bill 2019 [Oireachtas, 2019a] finally got through the Oireachtas and was signed into law by the President, Michael D. Higgins, on 21 December 2019. The 'Bill 2019' contains many interim measures, which amends the Gaming and Lotteries Act 1956. Minister David Stanton stated that the 2019 Bill would modernise and clarify the provision of "greatly outdated legislation" [Oireachtas, 2019b, p. 837]. The 'Bill 2019' implementation is expected to be completed by the end of 2020. It includes:

- Age restrictions. The 2019 Bill proposes that the legal age for participating in gambling activities is 18 years.
- Increase of stakes and prize limits for licensed gaming activities and machines. The 2019 Bill approved updating the maximum allowable stake on gaming machines to €5, while the maximum prize amount is set at €500 [Oireachtas, 2019a, p. 6].
- A new permit and licensing approach. The bill establishes a new permit and licensing application process. A superintendent of the Garda Siochana will issue permits, and the Revenue Commissioners or the District Court will issue licenses. The 2019 Bill also requires the Revenue Commissioners to establish and maintain a register of gaming licenses accessible online [Oireachtas, 2019a, p. 7]. A valid permit or licence is required to operate. Lotteries hold only for charitable or philanthropic purposes and do not require a permit or licence, but the total value of the prize is limited to €1000 and no more than 1,500 tickets at a maximum price of €5 per ticket [Oireachtas, 2019a, p. 8].

| Country | Regulators |
|---|---|
| ALDERNEY | Alderney Gambling Control Commission |
| AUSTRIA | Ministry of Finance |
| BELGIUM | Gaming Commission; Metrology Division, Ministry of Economics |
| BULGARIA | State Commission on Gambling |
| CROATIA | Tax Administration, Ministry of Finance |
| CZECH REPUBLIC | Gambling and Lottery Supervision Dept. Ministry of the Czech Republic |
| DENMARK | Danish Gambling Authority |
| ESTONIA | Tax and Customs Board; Ministry of Finance |
| FINLAND | Ministry of the Interior |
| FRANCE | ARJEL (Autorite de regulation des jeux en ligne) |
| GERMANY | Gambling Supervision Authority |
| GIBRALTER | Gibraltar Regulatory Authority |
| GREAT BRITAIN | Gambling Commission |
| GREECE | Hellenic Gaming Commission |
| HUNGARY | Tax and Financial Control Administration |
| IRELAND | Department of Justice and Equality |
| ISLE OF MAN | Gambling Supervision Commission |
| ITALY | Autonomous Administration of State Monopolies |
| JERSEY | Jersey Gambling Commission |
| LATVIA | Lotteries and Gambling Supervisory Inspection |
| LITHUANIA | Gaming Control Authority under the Ministry of Finance of the Republic of Lithuania |
| MALTA | Malta Gaming Authority |
| NETHERLANDS | Gaming Control Board; Ministry of Justice |
| NORWAY | Gaming and Foundation Authority; Ministry of Culture and Church Affairs |
| POLAND | Ministry of Finance |
| PORTUGAL | Inspectorate General on Gaming |
| SLOVENIA | Ministry of Finance, gaming legislation and gaming licensing; Tax Administration of the Republic of Slovenia, gaming supervision |
| SPAIN | National Gaming Commission |
| SWEDEN | Swedish Gambling Authority |
| SWITZERLAND | Federal Office of Justice; Federal Gaming Board; Swiss Lottery and Betting Board |

Table 7: Authorities in Europe
**Source:** Gambling Regulators European Forum

# 6 Conclusions

This working paper presents the work done in the first stage of our project and provides an overview of the recent academic research conducted on gambling both internationally and in Ireland. It has provided us with a deeper understanding of the prevalence of gambling as a social and economic activity, and the multiple facets of this phenomenon. It has helped us to identify key gaps in the available evidence base, especially when it comes to Ireland and how it compares to other international jurisdictions. It has also revealed that there is varying terminology used in the literature when it comes to the negative individual and social impacts of gambling.

We are heavily reliant in this paper on market research agencies to provide much of our data on both global and single jurisdiction gambling markets and the extent of different activities pursued in this sphere globally. It would be preferable if we had other sources of market-related data where we could more clearly interrogate the research methodologies and data. Further, across these reports, better classification of gambling activities is needed to provide more accurate detail on different gambling markets, and especially the impact of online activities. The work on identifying alternative sources of statistical data continues.

The academic research conducted on approaches to gambling over the last two decades has predominantly focused on providing models and theories focused on the prevalence and impact of problem-based and harmful gambling. It has contributed considerably to increasing our knowledge about the multiple factors involved in the development of problem gambling, the negative individual and interpersonal impacts and possible therapeutic and social solutions. The theoretical models demonstrate a strong tendency to emphasise medical and psychological factors, although some models also include what they call environmental or psychosocial factors. We have identified strong research centres researching gambling in the UK, Canada and Australia and have made contacts with some of them. We will continue to build our database of international academic research.

From a sociological perspective, it is as important to understand the impact of gambling on relationships with family, friends and community as it is to understand the individual's attitudes and beliefs about gambling. Thus, the importance of studying social interactions at the micro-level (social networks) and the macro-level (social structure and institutions.) There is clearly also a case to be made for research to be conducted on specific variables such as gender and age when it comes to prevalence studies. Further, most of the studies to date in this area have been carried out in the UK (Casey, 2008; Wardle, 2017) and Australia (Khanbhai et al., 2017; McCarthy et al., 2018; Flack and Stevens, 2019). There is little research on gambling as a widespread leisure activity that is not necessarily problematic, or into the economic impact of financial offshoring of the revenues that individual countries earn on gambling activities.

The academic research conducted to date in Ireland largely follows international patterns. The health and addiction focus dominates, and only a small number of other studies have explored the social-environment aspects of gambling. Much of this work is small scale, and many gaps in the literature have still to be addressed – in terms of the prevalence of gambling at a social level, the social and economic aspects of gambling, the negative impacts at an individual and societal level and the public policy responses required to respond effectively to these negative impacts. There is considerable scope for further work on the nature and development of the horse and greyhound industry and apparent differences in problem gambling between Northern Ireland and the Republic of Ireland. It is also important to keep changing national and international legislative responses under review.

Research is and always has been, necessary to understand gambling prevalence as a social phenomenon. It is important to identify gaps in our understanding and knowledge of gambling in Ireland in order to design contextually appropriate research studies and to inform public policies and responses adequately.

# A Appendices

## A.1 Data Management

### A.1.1 Data Management Tools: Microsoft Teams + Share Point

The initial step in this project was to set up a data management tool and online repository of important document related to the project and data about gambling and problem gambling in Ireland. A project titled 'gambling project' was created in Microsoft team and SharePoint which offers a workspace for file sharing, storage and collaboration. Our gambling project workspace contains three main channels: General, Data Management and Desk Research. These channels keep all data, especially main findings, personal notes, bibliographic files and website links.

The greatest advantage of Microsoft Teams + Share Point is its synchronised workspace. This particular combination of tools allows us to have the same files and organisation in SharePoint that we have in Microsoft Teams. The SharePoint document library stores automatically all data uploaded in Teams. Additionally, in the SharePoint online platform, team members can quickly review the latest activity, recently added files or modified documents.

### A.1.2 Reference Management Software

Researchers use the online version of EndNote to create bibliographies, manage references and shares libraries and insert citations in a word documents using Cite While You Write. Additionally, EndNote allows us to export BibTeX format citations to use in LaTeX, which is a document preparation software, ideally suited to for writing scientific reports.

### A.1.3 Research Ethics

As part of research preparation, an important step was the ethical issues of the project. Maynooth University has an ethics committee, which reviews all research proposals, to ensure that they do not raise any ethical issues. Researchers must have ethical approval before collecting data. For that reason, in the first weeks of the project, we learn about the ethical review application process. We also attended the training on the Ethics Module on RIS provided by Maynooth University Staff.

### A.1.4 Data Archiving

Other important research preparation is the management and storage of data. For this, we hold a meeting with the programme leader the IQDA to learn about the process of archiving qualitative data. The following are recommendations made by IQDA:

1. inform participants about our intention of archiving research findings.
2. inform participants about the process of anonymising data.
3. provide participants with a written consent form for archiving purposes.
4. preparing data for storage following the IQDA guidelines.

## A.2 Literature Review Methodology

### A.2.1 The Search

The search included the following keywords or themes:

- Gambling
- Problem Gambling
- Gambling Prevalence
- Social / Cultural Gambling
- Other related words (e.g., gaming, harmful gambling, pathological gambling, gambling addiction, compulsive gambling, etc.).

### A.2.2 Selection Criteria

The search was conducted in English. The goal was to locate studies conducted at a national and international level on the prevalence of gambling and of problem gambling. The search included peer-reviewed academic journal articles, book chapters, surveys, commissioned reports and non-peer-reviewed documents on the theme of gambling and problem gambling. We used the following search criteria.

1. Publications since 2010. We prioritised literature published in the last five years (2015-2020).
2. Publications in the Irish context, published in Ireland or citing Ireland in text.
3. Literature on the theme of gambling and problem gambling in other international jurisdictions, with specific emphasis on the following countries: Australia, the UK, USA and Canada.
4. Literature on the theme of behaviours and attitudes towards gambling.

### A.2.3 Search Strategy

For the search, we used the following academic databases and search engines:

- MU LibrarySearch: a search engine across a range of content held at Maynooth University Library including the library catalogue, electronic resources and 286 databases (e.g., PubMed, ProQuest Dissertation & Theses, Wiley Online Library, Jstor, EBSCOhost, Social Science Citation Index, and others.)
- The Mendeley Research Catalog: a crowdsourced database with over 300 million research documents.
- Google Scholar: a freely accessible web search engine that indexes the full text or metadata of scholarly literature across an array of publishing formats and disciplines.
- Specific Academic Journals. We paid attention to the publications of Journal of Gambling Studies, Journal of Gambling Behaviour, Journal of Gambling Issues, International Gambling Studies, Journal of Behavioural Addictions and Harm Reduction Journal.
- Official websites including Houses of the Oireachtas,[20] Government of Ireland,[21] the Department of Justice and Equality,[22] the Revenue,[23] and the Irish Statute Book (eISB).[24]
- Websites including Sinn Féin,[25], Problem Gambling Ireland,[26] Gamblers Anonymous Ireland,[27] Irish Bookmaker Association,[28] Responsible Gambling UK,[29], the Gaming & Leisure Association of Ireland (GLAI),[30] Aiséirí,[31] European Gaming and Betting Association (EGBA),[32] Statista[33] and others.

[20] Houses of the Oireachtas website, https://www.oireachtas.ie
[21] Gov.ie https://www.gov.ie
[22] Department of Justice and Equality, http://www.justice.ie
[23] Revenue.ie https://www.revenue.ie
[24] Irish Statute Book, http://www.irishstatutebook.ie
[25] Sinn Féin, https://www.sinnfein.ie
[26] Problem Gambling Ireland, https://www.problemgambling.ie
[27] Gamblers Anonymous Ireland, https://www.gamblersanonymous.ie
[28] Irish Bookmaker Association, https://www.irishbookmakersassociation.com
[29] Responsible Gambling UK, https://responsiblegamblinguk.org
[30] GLAI, http://glai.ie
[31] Aiséirí, http://aiseiri.ie
[32] EGBA, https://www.egba.eu
[33] Statista, https://www.statista.com

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