Kansspelautoriteit

# Market vision on gambling

## Market regulation and market supervision in the public interest

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# Inhoud

# Synopsis

## Introduction

Games of chance come in many forms, ranging from monthly lottery draws to roulette wheels in casinos, and from sports wagers placed from home on the couch to scratch cards purchased in shops. Games of chance are not merely innocent entertainment, however, as they are associated with risks. In addition to the possibility of deception and even outright fraud, some operators have criminal backgrounds, money laundering can occur, subscriptions to games can be difficult to cancel, and people may develop gambling disorders that make them unable to stop playing, such that they incur financial and psychosocial problems. In light of these risks, gambling is regulated and, in some cases, prohibited throughout the world.

In the Netherlands, games of chance are regulated by the Betting and Gaming Act and its subordinate legislation. Since 1 April 2012, the supervision of games of chance has been performed by the *Kansspelautoriteit* (the gambling authority in the Netherlands). The objective of this independent administrative body (ZBO) is as follows:

> *[...] to grant, modify and revoke licences for the various forms of games of chance, operating licences and model licences for gaming machines, to promote the prevention and reduction of gambling addiction, to provide information and education, to monitor compliance with applicable laws and regulations and licences, and to enforce them.*

The 2017 evaluation of the *Kansspelautoriteit* recommended the development of a vision on the organisation of the various gambling markets. According to an agreement with the Ministry of Justice and Security, the *Kansspelautoriteit* will not limit the market vision to the analysis of the *status quo*, but will also elaborate the policy theory that will be used to support the modernisation of the Betting and Gaming Act and gambling policy, based on its role and responsibilities. Such a vision is consistent with the broader perspective on supervision advocated by the Netherlands Scientific Council for Government Policy (WRR). Moreover, in accordance with national and European case law, the system for games of chance must be consistent and coherent.

The *Kansspelautoriteit* has placed the consumer at the centre of its strategy for the 2020-2024 period. Well-functioning gambling markets are needed in order to ensure that consumers are able to play safely. This document presents the market vision of the *Kansspelautoriteit*. This vision focusses on the following questions: Which market failures occur in gambling markets? How do these failures relate to three specific

public interests: addiction prevention, consumer protection and the fight against crime and illegality? With which forms of regulation and supervision can the government best safeguard these public interests?

This market vision provides integral recommendations for a system that is consistent and equipped for the future. The visions for each sub-market can serve as starting points for more extensive analyses for any future modernisations in legislation and regulations. Choices about such modernisation are up to politicians. Other considerations may also play a role in this regard. In accordance with the recommendations from the evaluation, the market vision will become part of the supervisory strategy of the *Kansspelautoriteit*, and it will be used for a variety of purposes, including as an analytical framework for the annual supervisory agenda.

## Market organisation and market supervision

We distinguish three aspects of market organisation: market structure, market behaviour and market performance. The tools for supervision of the market for games of chance can be further classified into three types: licensing, compliance supervision (including detection and enforcement) and information.

Market regulation and market supervision are inter-related concepts. For example, the structure of the market is strongly determined by the way in which it is regulated and licensed; compliance supervision focusses on the behaviour of market players in accordance with existing conditions (including with regard to licensing); and information and monitoring provide insight into the risks to consumers and the market performance of suppliers.

Existing legislation delineates a number of important aspects of the organisation of the gambling market. Within the framework of the Betting and Gaming Act, the *Kansspelautoriteit* acts as the market supervisor, safeguarding the public interest by granting licences and using them to supervise compliance, as well as by enforcing regulations against illegal supply. In addition, the *Kansspelautoriteit* provides solicited and unsolicited advice to ministries and other supervisory agencies. The actual policy is the responsibility of the relevant ministers.

## Analytical framework: Assessment criteria for market organisation

The development of a coherent vision of the organisation of the market for games of chance calls for an analytical framework that can be used to assess market outcomes and possible motives for intervention.

In its publication *Supervision of public interests,* the WRR advocates a vision on supervision proceeding from public interests. In this vision, the WRR distinguishes the ‘what’ question from the ‘how’ question. The ‘what’ question concerns the

societal interests that the government classifies as public interests, and the 'how' question concerns the way in which these interests are to be promoted and who is to bear operational -responsibility for them.

Three public interests have been formulated in existing legislation on games of chance. The *Kansspelautoriteit* supervises the legal standards that safeguard these interests:

1. Preventing gambling addiction
2. Protecting consumers
3. Fighting crime and illegality

The analytical framework provided by welfare economics can help politicians with the 'what' question. According to this framework, *market failures* can produce undesirable market outcomes, thereby legitimising government intervention (e.g. through regulation, supervision, taxes or subsidies). The risk of *government failure* requires public interventions to be designed carefully, in addition to being effective, proportionate and consistent.

According to European case law, any income from games of chance destined for the treasury or the promotion of philanthropic causes can be only a beneficial side effect, and such purposes cannot constitute independent justification (or a 'fourth public interest') for government intervention in games of chance.

In this market vision, we apply a broad definition of market failure. In addition to market outcomes that are sub-optimal in terms of *efficiency*, this vision addresses the systematic tendencies of consumers to deviate from fully rational choice behaviour. Such divergent choice behaviour falls within the domain of behavioural economics, and it is referred to as *consumer failure*. Market outcomes can also be assessed according to such criteria as *fair distribution* and *moral acceptance*.

The efficiency criterion concerns the effects of a measure, activity or investment on overall social welfare. It addresses both monetary and non-monetary welfare effects, for both consumers (*consumer surplus*) and producers (*producer surplus*).

## Market failure in games of chance

In order to construct a theoretical framework for a market vision on games of chance, it is important to identify the market failures that are likely to occur in gambling markets. Games of chance have distinctive product characteristics. For many people, they are a source of entertainment. When considered purely as a financial product, however, they are usually loss-making from the consumer's perspective. Spending on games of chance is highly concentrated amongst a

relatively small group of players, especially for games involving a high risk of addiction. The impact of the pay-out rate on expenditures differs from one game to another.

In general, the consumers of games of chance must rely on the accuracy of information provided by operators, as it is difficult or impossible for them to check it themselves (a situation known as *imperfect information* or *information asymmetry*). Even if consumers have good information, they do not always act in accordance with their own preferences or self-interest. *Bounded rationality* can lead to choices that systematically deviate from what is in the consumer's own best interest. The combination of chance and elements of dexterity can lead players to over-estimate their chances of winning, relative to objective probability calculations (a situation known as the *illusion of control*).

The risks of impulsivity are particularly high for minors, young adults and other vulnerable groups. Information problems are greater for people with mental disabilities and those who are less proficient in the national language. Behavioural traps are most pronounced for minors and, to a lesser extent, young adults. Restrictions (or even prohibitions) apply to gambling and advertising targeted towards vulnerable groups.

Within the context of Dutch policy, three types of gambling behaviour can be distinguished: recreational, risky and problematic. The most far-reaching form of problematic gambling is known in medical circles as *gambling disorder* or *gambling addiction*. Although the prevalence of gambling addiction is relatively limited as a percentage of all players, the absolute numbers indicate that a substantial group of people suffer from serious gambling problems.

Games of chance can give rise to negative *externalities*, which can make the demand for such games higher than socially optimal. Such negative externalities occur when recreational gamblers or people with gambling disorders cause social costs related to the disruption of family life, absenteeism from or loss of work, addiction treatment or debt restructuring. A second category of negative externalities is related to gambling-related crime, as in the case of money laundering or gambling debts that can draw players into criminal behaviour.

In addition to their negative effects, games of chance can have a positive impact on other sectors and activities in society. The most appealing example of this is the relationship that has historically existed between lotteries and the funding of charities.

Although gambling markets do not inherently appear to be particularly sensitive to the formation of cartels, the markets for lotteries, sports betting and casinos are highly concentrated. Dominant positions (e.g. *natural monopolies*) may also arise as a result of economies of scale and *network effects*. The monopolies in lotteries, sports betting and casinos are currently enshrined in law.

Gaming is an advertising-intensive *business-to-consumer* sector. Concerns about the nature, intrusiveness and quantity of advertising have given rise to various provisions in legislation and regulations regarding how consumers may be enticed to gamble.

Legal providers of casino games (and, in the future, *online* operators) have a legal duty of care. Such parties must take measures to prevent addiction and report unusual financial transactions in order to prevent money laundering and terrorist financing. Compliance with such rules can be at odds with the commercial interests of operators.

The internet revolution has had a major impact on the variety of supply, as well as on the environment and experience of gaming. Despite an apparently simple, clear-cut distinction between physical and online gambling at first glance, games of chance that are either entirely online or entirely physical are but two extremes at opposite ends of a spectrum of distribution channels. This document draws upon a risk-based classification by type of game, rather than a dichotomous distinction between distribution channels. The specific risks that arise or are magnified when games of chance (or elements thereof) take place online are primarily related to addiction sensitivity, fraud and the fairness of the game, as well as to age verification, privacy and advertising. At the same time, however, specific control options are available for online games.

## Forms of regulation and market supervision

Different market failures and risks can be contained by different types of regulation and market supervision.

A generic ban on specific games of chance is the most far-reaching restriction that a government can impose. Once the Remote Gambling Act has entered into force, there have been virtually no generic prohibitions on games of chance. Within the Dutch betting market, however, certain categories are prohibited and will not be permitted under the Remote Gambling Act, including *event betting*, *eSports-betting* and *spread betting*.

In addition to the prohibition or regulation of activities, public authorities can use whole or partial ownership of operators to control a market. State participation or other control tools are not an option unless legislation and regulations fail to provide

the desired control and public interests cannot be properly defined or demarcated (i.e. they are not *contractable*). For this reason, Holland Casino and the *De Nederlandse Loterij* (the Dutch State Lottery; previously known as the SENS) are designated as *non-permanent* participations in the Dutch Government's 2013 *Participation Policy Memorandum*.

In the past, legislation has been aimed at 'channelling' players towards a restrictive legal supply, with single-licence systems whenever possible, and an open system if there is no other option. Although the most recent Cabinet vision on games of chance continues the idea of channelling, it no longer proceeds from a restrictive supply, but from additional room for an appropriate and attractive offer, without losing sight of vulnerable players and the risks associated with gambling. In this view, regulation and supervision should ideally focus on reducing the harmful effects of consumption, rather than on limiting the volume of supply or consumption. Supervision of the behaviour of licence holders and their interactions with players is a more obvious choice than limiting the number of licences *as such*.

The government can also use financial incentives in the attempt to influence market outcomes. It can use subsidies to promote some activities while using taxes and compulsory contributions to discourage other activities. In addition to the gambling tax, gambling operators currently pay a gambling levy to finance the *Kansspelautoriteit*.

The market failures and risks to the public interest that have been identified in association with games of chance can also be mitigated by various forms of requirements (whether incorporated into general regulations or through licensing conditions) and consumer information. We distinguish licensing and information requirements from requirements aimed at consumer protection or addiction prevention. Licensing is a preventive form of regulation designed to use the prior assessment of licensing criteria to exclude unsuitable individuals and companies from a market before their actions have the chance to jeopardise public interests. The *Kansspelautoriteit* also monitors compliance (including detection and enforcement) with the market conduct of gambling operators who are active on the market.

With regard to the tools of regulation and supervision, it is important to note that interventions in market outcomes are subject to a number of classic traps and shortcomings, otherwise known as *government failures*. Common examples include reduced efficiency in implementation by the government, lack of the disciplining effect of the capital market and the blending of potentially conflicting objectives and roles. When designing regulation and supervision, potential government failures – including the social costs of creating, enforcing and complying with rules themselves – must be weighed against the market failures that they are intended to correct.

## Vision on sub-markets

### *Lotteries*

In the Netherlands, the Betting and Gaming Act allows for one national lottery, lotto and instant lottery. These licences are currently held by *De Nederlandse Loterij*, which is owned by the state. In addition, an indefinite number of licences may be granted for charitable lotteries.

In 2016, an estimated 7.6 million people had recently participated in a lottery. The total ticket revenue in the lottery market in 2018 amounted to €2.0 billion. At-risk and problem gamblers are relatively rare amongst lottery participants and scratch-card buyers. When they do participate in lotteries or buy scratch cards, at-risk and problem gamblers tend to spend the same amount on these games as recreational players do, and they usually participate in more addictive games of chance as well. Lotteries are thus unlikely to be the cause of the problematic playing behaviour of these gamblers.

The *risk of addiction* in lotteries is particularly low because of the relatively long period between ticket sales and pay-out, combined with the lack of the possibility of continuous, high-frequency playing. Some risks are nevertheless associated with high jackpots/grand prizes, the wide availability of tickets through many points of sale and the relatively high chance of winning a small prize. The risk of addiction is higher for scratch cards than for other lotteries. In practice, however, addiction to scratch cards is rare in the Netherlands.

Lotteries pose greater risks to the public interest in terms of *consumer protection*. For example, the various lotteries have prize packages that are difficult to compare, and the underlying odds are difficult for most people to fathom. Consumer failure plays a role as well. In the case of lotteries, economies of scale and *network effects* lead to market concentration or even monopolies. The public interest in *fighting crime and illegality* is limited within the context of lotteries.

The current organisation of the lottery-licensing market stems from the policy notion of channelling the desire to play through restrictive supply. Following the contours of the future lottery system outlined by the Minister in 2019, which is aimed more at providing consumers with choices and channelling them to legal, appropriate and attractive offers, in the future, the public interests could also be safeguarded through the organisation of a market without statutory monopolies and state participation in lotteries. It will continue to be necessary to maintain and, as needed, to unify and modernise existing regulations and their enforcement, with the goal of achieving transparency, tackling misleading advertising and subscriptions that are difficult to cancel, and ensuring the fairness of draws and the financial stability of operators.

In line with this vision, future efforts should focus less on restricting the number of scratch-card licences and more on safeguarding the public interest by regulating and supervising points of sale (including strict age control). After the market is opened to online gambling, it would be best to regulate digital scratch cards (which are currently prohibited) as a form of online gambling, given the high frequency of these games and their risk of addiction.

The prohibition of for-profit lotteries would constitute a barrier to entry. In theory, it would be in the interest of consumers to allow (or continue to allow) lottery operators to *pool* their jackpots with participants from other countries who are playing in the same lottery. This would allow entrants to offer an attractive jackpot from the outset. It is important to note, however, that the playing field in Europe is currently not level. As a result, foreign lotteries could enter the Netherlands from protected domestic markets. A more detailed assessment will therefore be needed in order to identify the extent to which the benefits of pooling for Dutch consumers would outweigh the consequences of potentially unequal competition with existing lottery operators.

The government has announced its intention to modernise the legislation and regulations governing lotteries. In line with the vision on market regulation and the regulation of lotteries set out in this document, the Minister for Legal Protection outlines the legal and policy contours of a modernised lottery system that does justice to the channelling function of lotteries, as well as to the valuable social contribution made by lottery payments. The policy-based desire for a level playing field is also in line with the present vision document.

In future lottery scenarios, consideration could also be given to the assessment of additional tools for the promotion of philanthropy, as well as to aspects of EU law, in order to ensure the consistent inclusion of charitable donations as part of the design of the various gambling markets.

### *Sports betting*

Under the current system, two licence holders are allowed to offer sports betting: one for wagers on horse racing and trotting competitions in the Netherlands, and one for all other wagers on sports competitions. The Remote Gambling Act will open the online market to an indefinite number of licence holders.

In 2016, there were about 350 thousand recent participants in sports betting and about 70 thousand participants in betting on horse racing. The total investment of the two licence holders in 2018 was €224 million. Revenues from sports betting increased substantially in 2019.

Sports betting is associated with a relatively high susceptibility to addiction. Important potential risks of this type of gambling include insider dealing and match-fixing, which are related to both consumer protection and crime-fighting. Other risks associated with classic market failures are limited for this type of gambling.

The current monopolies of land-based sports betting stem from the previous policy conception of channelling through restrictive supply. According to the most recent Cabinet vision, public interests could also be safeguarded in the future by organising the market without statutory monopolies and state participation in sports betting.

In the same vein, future government intervention in physical and online sales channels could be harmonised in line with modern legislation and regulations on remote gambling. Public interests will continue to be safeguarded through the regulation and supervision of points of sale. Given that the current dichotomy between sports betting and betting on horse racing and trotting will add little to the forthcoming open market for betting, it could be eliminated.

Adequate monitoring of match-fixing – which often takes place outside the scope of betting operators – requires that operators continuously share suspicious betting patterns with each other and with investigative bodies. Examples of these bodies include the National Match-fixing Platform, the 'signalling board' (*signalenoverleg*) and the Sports Betting Intelligence Unit at the *Kansspelautoriteit*.

A modernised betting system (e.g. the lottery system) requires a legal and policy framework that does justice to the channelling function of betting, as well as to the valuable contributions made by sports-betting payments. This is especially applicable to contributions to horse racing and trotting. More so than in the case of lotteries, however, high contributions are at odds with the attractiveness of the supply to players.

### *Casino games and slot machines (physical and online)*

In the Netherlands, the offering of casino games at a physical location is currently reserved exclusively to Holland Casino. In addition to casinos, slot machines may be installed in amusement arcades and high-threshold hospitality establishments, albeit with restrictions on such aspects as maximum throw-in and playing speed. The Remote Gambling Act does not provide for a monopoly, and it theoretically opens the online market to an indefinite number of licence holders.

In 2016, there were more than 750 thousand table players, 400 thousand poker players and 900 thousand slot-machine players. In 2018, the gross result from table games in casinos was €266 million, with gross results from slot machines totalling more than €1.1 billion.

Inherent characteristics of the product make casino games highly addictive, as compared to most other games of chance. The risk of addiction in *online* casino games and gaming machines is greater than it is in physical gaming environments, due to the higher gaming frequency, wider availability and accessibility, and less social control. On the other hand, online gaming allows for full insight into and control of playing behaviour. In addition to the importance of preventing addiction, it is important to ensure the protection of consumers (by mitigating information problems), as is the public interest in fighting crime and illegality.

The current state monopoly on casino games stems from the historical policy notion of using restrictive supply to channel demand. According to the most recent Cabinet vision, public interest could also be safeguarded in the future by organising the market without statutory monopolies and state participation in casino games. In principle, the restriction on the number of establishments could be eliminated, and responsibility for granting establishment permits could be assigned to the municipality, as is the case for amusement arcades.

The harmonisation of government interventions in online and physical gambling should include a comprehensive programme of preventing addiction, monitoring individual gambling behaviour and enforcing the age limit of 18 for gaming machines. All operators of casino games and machines at physical locations – including hospitality establishments – should be subject to the same duty of care as casino games and online games of chance. This would eliminate the element of anonymity, which is a risk factor for addiction and money laundering. Such measures would also level the playing field in terms of supervision for the entire market of addiction-sensitive casino games and gaming machines. The current regulations for gaming machines should be modernised in such a way that technologies that are already in use in other countries (e.g. remote monitoring and control machines) would also become the standard for all locations where players can stay for long periods of time. This would allow for only high-threshold gaming facilities that are capable of providing the desired level of addiction prevention and consumer protection.

The legislative proposal for a privatised casino market with a limited number of operators was withdrawn in 2019. In a few years' time, however, it could be an option to redesign privatisation and the opening of the casino market as a blueprint, provided that the initial experiences with an indefinite number of online gambling operators do not give rise to any additional concerns. Such adjustments should also correspond to the modernisation that is needed in the regulation of gaming machines.

## *Adjacent markets*

Certain games of chance (poker, sports betting) involve some form of skill. In practice, the demarcation between chance and skill does not pose the greatest challenge in the monitoring of games of chance. In some cases, a more difficult question concerns whether public interests relating to gambling play a role in games where the element of probability outweighs skill. Only if this is the case should such games fall under the supervision of the *Kansspelautoriteit*. For example, the element of chance involved in chocolate surprise eggs bears no relationship to gambling, and there is therefore no need to regulate them.

The legislation recognises two special cases for gaming machines. With an *arcade*, the player can influence the course of the game, with prizes consisting only of extended playing or free games. *Fairground machines* do not pay out money, but other forms of prizes (e.g. vouchers or goods in kind) valued at no more than 40 times the bet. The *Kansspelautoriteit* has previously recommended that fairground machines should be brought more in line with gaming machines. This proposal has now also been endorsed by the branch organisation for arcades (e.g. by appealing to its members to stop installing fairground machines on which games of chance can be played in arcades where minors are allowed to be present.

*Gaming* is a popular activity, especially among youth and young adults. The risks associated with both gambling and gaming include their addictive effect and the possibility of spending large (or even excessive) amounts of money. Until recently, policymakers did not devote the same level of attention to the problems associated with gaming as they did to those associated with gambling. The risks associated with games of chance are too diverse to be regulated solely by the Betting and Gaming Act. European gaming regulators (including the *Kansspelautoriteit*) advocate for a coordinated approach to the risks of both gaming and gambling, including in cooperation with national regulators in other areas.

The future regulation of *games* containing elements of gambling should ideally focus as much as possible on preventing and curbing the underlying risks. The distinction between games of skill and games of chance should always be clear to consumers. The basic principle should be that games should never expose minors, young adults or other vulnerable groups to *loot boxes* or other potentially addictive elements of gambling.

Three categories of financial products resemble games of chance:

1. Legitimate products (e.g. life insurance and premium bond loans)
2. Risky products (e.g. binary options and contracts for difference)
3. Fraudulent products (e.g. pyramid schemes, certain forms of multi-level marketing and Ponzi schemes)

Although the three examples of fraudulent or dubious products are closely related, their supervision in the Netherlands is divided across three different supervisory agencies (*Kansspelautoriteit*, ACM and AFM). In order to achieve greater uniformity in regulation and supervision, it would be reasonable to eliminate pyramid games (in which there is no element of chance) from gambling legislation. Instead, the current generic prohibition on such fraudulent constructions could be accommodated within other statutory regulations, the jurisdiction for which would be assigned to a competent investigative and enforcement agency.

# 1 Introduction

## 1.1 Reason and Background

Games of chance come in many forms, ranging from monthly lottery draws to roulette wheels in casinos, and from wagers placed on football matches from home on the couch to scratch cards purchased at tobacco shops. One element that all of these games of chance have in common is that they involve consumers exchanging relatively small amounts of money for a chance of winning prizes of higher value, without being able to exercise any influence over the odds of winning. Consumers derive pleasure and entertainment from the waiting in suspense for and dreaming about such uncertain outcomes, as well as from the surprise effect when such outcomes actually occur.[1]

Games of chance are not merely innocent entertainment, however, as they are associated with risks. In addition to the possibility of deception and outright fraud, some operators have criminal backgrounds, players may become involved in money laundering, subscriptions to games can be difficult to cancel, and people may develop gambling disorders that make them unable to stop playing, such that they incur financial and psychosocial problems. In light of these risks, gambling is regulated and, in some cases, prohibited throughout the world.

### 1.1.1 *The Kansspelautoriteit: Statutory duties and evaluation 2012-2016*

In the Netherlands, games of chance are regulated by the Betting and Gaming Act and its subordinate legislation. Since 1 April 2012, the supervision of games of chance has been performed by the *Kansspelautoriteit* (the gambling authority in the Netherlands). The objective of this independent administrative body (ZBO) is as follows:

> *[...] to grant, modify and revoke licences for the various forms of games of chance, operating licences and model licences for gaming machines, to promote the prevention and reduction of gambling addiction, to provide information and education, to monitor compliance with the applicable laws and regulations and licences, and to enforce them.*[2]

Based on the ZBO Framework Act, the *Kansspelautoriteit* was evaluated for the first time in 2017. The implementation of the evaluation for the period 2012-2016 was entrusted to the Research and Documentation Centre (hereinafter, the WODC) of the Ministry of Justice and Security. One of the 10 main recommendations of the evaluation is that each of the aforementioned statutory duties should be performed in conjunction with and from the perspective of the organisation of the various gambling markets:

1 Article 1 of the Betting and Gaming Act of 1964 refers to games in which '[...] the designation of winners shall be effected by any provision of chance over which the participants generally cannot exercise any major influence [...]'.
2 Betting and Gaming Act, Article 33b.

*The Kansspelautoriteit must develop a market vision that devotes attention to the impact of its own activities on the organisation of the market. This aspect must be incorporated into the supervision strategy.*[3]

The explanatory memorandum to this recommendation adds the following:

*The Kansspelautoriteit directs substantial attention towards the risks of individual licensing, but it has yet to develop a recognisable and transparent view of the cumulative risks arising from the organisation of the market (e.g. in terms of competitive pressure, consumer behaviour or addiction). Such a vision could improve the ability of the Kansspelautoriteit to substantiate its choices and strengthen the coherence between risk analysis and strategy.*

*It would be advisable to update this vision periodically by preparing reports on the state of the gambling sector. Such a report could chart the consequences of developments for public objectives and place new risks on the agenda. The current market scans could be included in these reports, and the development of the vision could provide a foundation for legislative letters.*

The evaluation committee discusses this in greater detail in Section 2.3.1 of its report:

*The Kansspelautoriteit must at least have a vision on profitable exploitation, an attractive and varied supply for consumers, and a level playing field for operators. When granting licences, the Kansspelautoriteit must also at least partly determine the relative justification of competition and yield optimisation amongst licence holders relative to the interests of addiction prevention, consumer protection and crime prevention.*

In response to the evaluation report, the Minister of Justice and Security wrote the following to the House of Representatives:

*I also endorse the recommendation to the Kansspelautoriteit that the supervisory strategy should include a market vision, with due attention to the consequences of its own activities. The Kansspelautoriteit will present a supervisory agenda for 2018-2019. I see this supervisory agenda and the periodic publication of a market scan as important elements of a market vision. In its vision, the Kansspelautoriteit identifies the forms of gambling that it regards as most harmful, undermining or otherwise undesirable, thereby laying the foundation for strategic prioritisation on risks that contributes as much as possible to achieving the policy objectives.*[4]

3 *Parliamentary Papers II*, 2017/2018, 25268, 149, blg-823004, p. 112.
4 *Parliamentary Papers II*, 2017/2018, 25268, 149, p. 5.

In response to the recommendations from the evaluation, the *Kansspelautoriteit* wrote:

> *The Kansspelautoriteit embraces this [...] recommendation [...]. In its market vision, the Kansspelautoriteit indicates how the market structure determined by the legislature can influence the incentives for license holders to safeguard public interests.*[5]

As noted in the report entitled *Policy reconstruction and evaluation framework for the modernisation of gambling policy*, the policy theory applied to the redesign of the casino regime and the recalibration of the lottery system is less elaborate and explicit in the policy documents.[6] In consultation with the Ministry of Justice and Security, it was agreed that the present market vision is not limited to an analysis of the *status quo,* but that it also substantiates and elaborates the policy theory underlying the modernisation of the Betting and Gaming Act and the policy on games of chance, based on its role and responsibility. The policy-theoretical analysis and recommendations of this vision document are intended as building blocks for further policy development by the Ministry.

### 1.1.2 *Reflective supervision and consistency of the system*

The recommendations emerging from the evaluation of the *Kansspelautoriteit* do not stand alone; they are part of a broader development. In the 2013 publication entitled *Toezicht op publieke belangen* (Supervision of public interests), the Scientific Council for Government Policy (in Dutch, *Wetenschappelijke Raad voor het Regeringsbeleid*, or WRR) generally advocates a broader perspective on supervision that 'looks beyond current incidents and does more justice to the social complexity and dynamics involved'.[7]

From this perspective, the WRR distinguishes four core tasks. First, the public interest should be the starting point for all supervisory issues, and not only for compliance with legislation and regulations. Second, the social benefits of supervision should be weighed against the costs in an evidence-based manner. The third core task is to be more explicit in identifying the function that supervision can best fulfil in order to bring the desired social order and governance structure closer to safeguarding public interests. Fourth, the WRR recommends strengthening the reflective function of supervision. On this point, the council writes:

> *Reflection also means analysing bottlenecks in legislation and regulations in relation to one's own functioning or analysing social or sectoral developments that entail new or greater risks.* A reflective supervisor places the public debate concerning 'the state of the sector' on the agenda, in addition to mirroring and feeding this debate.

5 *Parliamentary Papers II*, 2017/2018, 25268, 149, blg-823005, p. 2.
6 *Parliamentary Papers II*, 2015/2016, 24557, 137, blg-642310, p. 97.
7 Wetenschappelijke Raad voor het Regeringsbeleid (2013). *Toezien op publieke belangen. Naar een verruimd perspectief op rijkstoezicht*. Rapporten aan de Regering 89, p. 14-15.

Case law also imposes increasingly onerous requirements concerning the grounds for setting up the system for licensing games of chance. The requirements of consistency and coherence play an important role in this process, which calls for an overarching vision of this system on the part of the *Kansspelautoriteit*, which defends the licensing policy in court.[8] Furthermore, as indicated by recent case law from both the Council of State and the European Court of Justice, justifications from the past do not imply justification for the future. Any change to the system (e.g. opening the remote gambling market, as approved by the Senate on 19 February 2019; the re-organisation of the other gambling markets, as is currently being considered by the responsible departments) will once again raise questions concerning the continuing horizontal consistency of the system as a whole.[9]

This market vision provides integral recommendations for a system that is consistent and equipped for the future. The visions for each sub-market can serve as starting points for more extensive analyses for any future modernisations in legislation and regulations. Choices about such modernisations are up to politicians. Other considerations may also play a role in this regard.

## 1.2 Reading guide

With the present vision document (*Market vision on gambling: Market organisation and market supervision in the public interest*), the *Kansspelautoriteit* presents its vision of the market, which is needed from the perspective of its statutory evaluation, its role as a modern supervisor and recent policy and jurisprudence.

This document is structured as follows. Section 2 provides a description of the existing organisation of the gambling markets, how these markets emerged from the legislation and regulations that are currently in force and the interests that the *Kansspelautoriteit* weighs in its supervisory duties, including the granting of licences, the supervision of compliance (including investigation and enforcement) and the provision of information.

Section 3 describes various criteria for assessing the outcomes of gambling markets (e.g. efficiency, consumer protection, equity and moral acceptance). These criteria make it possible to identify the various market failures that occur in gambling, along with the resulting public interests in gambling. They concern the public interest in a general sense, as well as how a broad welfare framework can help to link the economic characteristics of gambling markets and how the market and consumers can fail in terms of such non-economic concepts as gambling addiction and crime. The intended market vision can be formulated through such integration of the economic and non-economic aspects of gambling markets within a single framework, and against the background of existing legislation and regulations.

8 ECLI:NL:RVS:2018:1466, paragraph 10.6 et seq. and ECLI:EU:C:2018:1026 (Stanleybet), paragraph 52.
9 ECLI:NL:RVS:2018:1466, paragraph 10.5 and 10.5.1. and ECLI:NL:RVS:2019:770/71/74/75, paragraph 5.6.

Based on this analytical framework, Section 4 analyses the various market failures associated with games of chance. It addresses the reasons for participating in games of chance, imperfect information, behavioural traps that also occur even in the absence of information problems (e.g. gambling addiction) and the negative externalities of games of chance, as well as their positive effects on philanthropy, imperfect competition due to economies of scale and network effects, and perverse incentives amongst operators and consumers.

Section 5 examines the forms of regulation and supervision that can curb the various market failures and risks to public interests. It addresses the prohibition and enforcement of the most harmful forms of gambling, the management of regular forms of gambling through state participation, restrictions on supply and demand, financial incentives and administrative obligations, and the role of information and monitoring.

The vison paper concludes with Section 6, which outlines the specific market failures, the greatest risks to public interests and the most appropriate forms of regulation and supervision for the main sub-markets: lotteries, sports betting, casino games and gaming machines. In accordance with the recommendations of the evaluation, the market vision will be incorporated into the supervisory strategy of the *Kans-spelautoriteit*, and will be used for purposes including as an analytical framework for the annual supervisory agenda.

# 2 Current market organisation and market supervision

## 2.1 Introduction

This section provides an overview of the current market organisation of the various gambling markets in relation to the market supervision performed by the *Kansspelautoriteit*. For the general background of the current situation, we refer to the Dutch-language policy literature.[10, 11, 12] Section 2.2 addresses three aspects of market regulation: structure, behaviour and performance. Within the broad concept of market supervision, Section 2.3 elaborates three concrete tools used by the *Kansspelautoriteit*: licensing, compliance supervision (including investigation and enforcement) and the provision of information. Section 2.4 provides a schematic overview of the relationship between market regulation and market supervision, and Section 2.5 describes how the current market structure has been determined by legislation and regulations. Section 2.6 describes the central role that public interests play for the *Kansspelautoriteit* in the execution of its statutory duties. Finally, Section 2.7 discusses the advisory roles of the *Kansspelautoriteit*.

## 2.2 Market regulation: Structure, behaviour and performance

We distinguish three aspects of market organisation: structure, behaviour and performance. This classification follows the economic theory of industrial organisation,[13] which describes the interactions taking place between the various aspects of the market. In its simplest form, the structure of the market determines the behaviour of companies on the market, which subsequently determines their performance. Inverse relationships are possible as well. For example, market performance (e.g. profitability) can influence market structure (e.g. market share) and market behaviour (e.g. prices and advertising).[14]

### 2.2.1 *Structure*

The structure of the gambling market refers to the way in which it has been shaped through external circumstances (e.g. technological possibilities or legislation and regulations), as well as through the past market behaviour of gambling operators. The dimensions of the market structure include the following:

- The relative possibility of entry and exit
- The number of suppliers and their respective market shares
- The geographic distribution of suppliers
- The nature and extent of product differentiation
- The technology used and the corresponding cost structure

10 Rapport van de Commissie kansspelautomaten, *Op de kast gejaagd*, 30 March 1995.
11 Van 't Veer, A., 1998. *Spelregels*, (diss. Rotterdam). *Deventer: Gouda Quint*.
12 Kingma, S.F., 2002. *Het gokcomplex: verzelfstandiging van vermaak*. Amsterdam, Netherlands: Rozenberg.
13 Bain, J.S., 1959. *Industrial Organization*. New York: John Wiley & Sons, Inc.
14 Tirole, J., 1988. *The theory of industrial organization*. MIT press.

- The extent of vertical integration with suppliers (e.g. gaming-machine manufacturers or IT companies providing lottery draws) and outlets (e.g. gaming-machine manufacturers and retailers selling scratch cards)

### 2.2.2 *Behaviour*

Market behaviour consists of the decisions taken by gambling operators about, for example:

- Entering or leaving the market by applying for or returning a licence
- The stakes for participation (e.g. the price of a lottery ticket or bingo card, the stakes in sports betting or at a gaming table, or the amount of cash inserted into a gaming machine)
- The volume (e.g. the number of lottery draws, the number of scratch cards, the number of player seats at gaming machines or at gaming tables)
- The game concept (e.g. the rules of the game and audio-visual design)
- The nature and extent of recruitment and advertising
- The positioning of the product in relation to other products through:
  - The size and structure of prize packages (as summarised by pay-out rate, grand prize and/or jackpot amount and chance of winning)
  - The sales channels (e.g. in a shop or as *e-commerce*) and opening hours
- Efforts to prevent addiction and combat money laundering and other forms of crime
- Investment in product development

### 2.2.3 *Performance*

Market performance is the result of decisions taken by gambling operators and the way in which consumers have reacted to them. Market performance includes the following:

- Quantity of gambling products sold (e.g. lottery tickets sold, wagers placed)
- Corresponding net turnover (i.e. revenue from participation certificates minus prize money paid out; also referred to as the gross gaming revenue)
- Profit and contributions to shareholders or charities
- Extent of gambling addiction and money laundering by customers
- Supply of and demand for unlicensed games of chance (channelling)
- Cost-effectiveness and innovation
- Employment
- Gambling tax proceeds

Conversely, market performance (e.g. profit) can influence market behaviour (e.g. by using profits to expand the number of sites or innovate new products).

## 2.3 Market supervision tools

We have identified three concrete tools for the supervision of the gambling market: licensing, compliance monitoring (including detection and enforcement) and the provision of information. These tools correspond to three of the four statutory tasks of the *Kansspelautoriteit* listed in the introductory section. They can also be applied to the fourth statutory duty, which is aimed at promoting the prevention and reduction of addiction to games of chance. The *Kansspelautoriteit* also fulfils a coordinating role for non-supervised mental healthcare providers.[15]

### 2.3.1 *Licensing*

The Betting and Gaming Act is structured in such a way that the operation of games of chance is prohibited, unless a licence has been granted under the Act. For most forms of games of chance, the *Kansspelautoriteit* is the body that issues these licences:

- Occasional licences for lotteries with prize money starting at €4,500
- Licences for permanent (or semi-permanent) games of chance (e.g. lotteries, sports betting and casinos)
- Operating licences for gaming machines
- Model licences for gaming machines

In other cases, the municipality is usually the licensing or approving authority:

- Occasional licences for lotteries with prize money less than €4,500
- Time-limited promotional activities in retail and hospitality[16]
- Small-scale games of chance organised by associations, with maximum prizes of €400 and a total prize pool valued at less than €1,500
- The establishment of amusement arcades
- Gaming-machine permits

### 2.3.2 *Compliance monitoring*

As mentioned in the Introduction, the duties of the *Kansspelautoriteit* include supervising and enforcing compliance with applicable laws, regulations and permit requirements. This includes the prevention policies of operators and the measures taken by licence holders to guarantee the integrity of games of chance and to provide players with prompt, accurate information. In order to combat illegal gambling, the *Kansspelautoriteit* also detects illegal games of chance. Furthermore, it supervises compliance with the Money Laundering and Terrorist Financing (Prevention) Act (Wwft).

### 2.3.3 *Information*

Information and the information facilities have to do with the solicited and unsolicited provision of information to citizens, other government bodies,

15 Visie coördinerende rol verslavingspreventie, Kansspelautoriteit (2018).

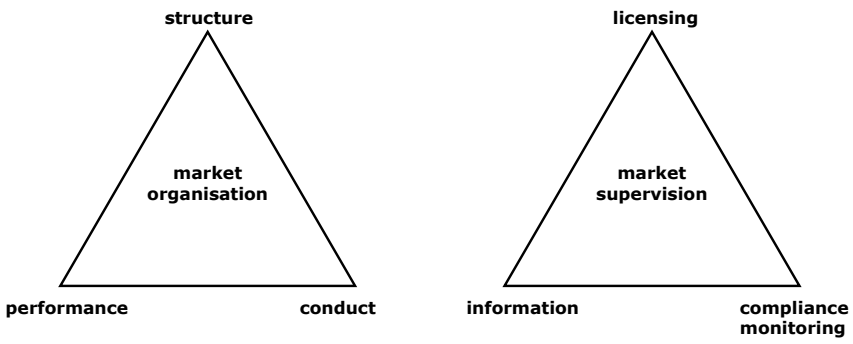
16 To hold time-limited promotional activities, the shop owner or hospitality operator must obtain a permit from the Chamber of Commerce for the municipality in which the activities will be held.

businesses and civil society organisations. This also includes providing guidance to the market on how the *Kansspelautoriteit* interprets and applies laws and regulations and how it monitors the market. Publications of the *Kansspelautoriteit* that are relevant to this vision document include a variety of guidelines, fact sheets and market scans. The *Kansspelautoriteit* has a public telephone line where citizens, municipalities and operators can request information, report possible illegal games of chance and ask questions about games of chance (e.g. with regard to recognising and preventing addiction to games of chance). Given that municipalities retain responsibility for supervising and enforcing the gaming licences that they issue, efforts are also being devoted to promoting expertise aimed at supervision and enforcement by municipalities.

## 2.4 Relationship between market organisation and market supervision

Market regulation and market supervision are inter-related concepts. For example, the structure of the market is strongly determined by the way in which it is licensed; compliance supervision intervenes in market behaviour, and information and monitoring provide insight into market performance. A schematic outline of the relationship between market regulation and market supervision is presented in the figure below. Each term in the organisation triangle is associated with a corresponding term in the same position in the supervision triangle. It is important to note, however, that the outlined link between the aspects of market regulation and market supervision is not a one-to-one relationship. For example, in addition to influencing the structure of the market, licences influence the behaviour and performance of suppliers (e.g. through provisions in lottery licences concerning the allowable number of draws and requirements concerning the prize pool). Moreover, both consumer information and guidance to suppliers have the potential to influence the behaviour of these market players.

*Figure 1: Schematic outline of the relationship between market organisation and market supervision. Each term in the organisation triangle has a counterpart at the same position in the supervision triangle.*



## 2.5 Legislation and regulations on the organisation of the market in games of chance

For the gambling market, the current Gaming Act and its subordinate legislation make strong prescriptions with regard to market organisation:

- The number of licence holders for the national lottery, the lotto game, the instant lottery, sports competitions, the totalisator and casinos, as specified in the Betting and Gaming Act
- The geographic distribution of casinos, as established in the 1996 Decision on Casino Games
- Various characteristics of the technology used in gaming machines

The underlying policy approach adopted by the legislation involves channelling players towards a restrictive legal supply, with a single-licence system whenever possible, and an open system if there is no other option.

Within these legally established frameworks, the *Kansspelautoriteit* acts as a market supervisor, monitoring the public interest by granting licences and supervising the compliance of the licence holders.

### 2.5.1 *Legally defined elements of the market structure*

At present, the following types of licensing systems apply:

1. No licences (thus prohibited): remote gambling, until the Remote Gambling Act has entered into force
2. Single (monopoly) licence:
   a. Indefinite duration: the national lottery and casinos
   b. Limited duration and:
      i. Private licensing: lotto games, instant lotteries and sports betting
      ii. Public licensing: the totalisator
3. Several permits not limited by law:
   a. Operation of gaming machines
   b. Lotteries involving donations to charity
   c. Remote games of chance, once the Remote Gambling Act has entered into force

In the following sub-sections, we elaborate on the policy of the *Kansspelautoriteit* within the various market structures.

### 2.5.2 *No licence: Enforcement against illegal supply*

Supply operating without a licence is illegal and subject to enforcement by the *Kansspelautoriteit*.[17] In its enforcement policy, the *Kansspelautoriteit* has formulated

17 One exception has to do with promotional games of chance that are subject to a code of conduct.

general criteria that apply to any type of illegal supply. In addition, 'priority-setting criteria' have been formulated for illegal online offerings, with priority in enforcement being assigned to illegal supply targeted at the Netherlands and with the greatest potential to harm the public interest.

Until recently, online gambling markets had no specific legal basis for licensing. Now that the remote gambling bill has become law, this will change, and an open licensing system will be established for almost all forms of online gambling, with the exception of lotteries and forms of betting that are highly risky to consumers (e.g. spread betting and event betting).

### 2.5.3 *Monopoly licences*

With regard to the markets for the national lottery and casinos, the Minister of Justice has previously granted monopoly licences to the state participation in the *De Nederlandse Loterij* and Holland Casino, respectively, for an indefinite period of time. The bill to modernise the casino regime, which had been withdrawn, was intended to privatise the state participation in Holland Casino. This would have created a market in which a statutory maximum number of licences could be granted to gaming locations for a limited period of time.

Current legislation does not specify how multi-year monopoly licences are to be granted. In practice, licences are granted either directly to publicly controlled operators or to private parties, according to a transparent, non-discriminatory procedure based on a comparative test.

The policy of the *Kansspelautoriteit* is to apply direct award procedures for operators under direct state supervision (e.g. through state participation). European Union law allows this, albeit under strict conditions.[18] Based on this policy, the *Kansspelautoriteit* has awarded the current licences for lotteries, sports betting and the instant lottery directly to the state participation *Lotto B.V.* In 2018, the Council of State ratified the monopoly licences for sports betting and the instant lottery.[19]

The totalisator licence for betting on horse racing and trotting is not in the hands of a state party. Following a ruling by the District Court of The Hague, the *Kans-spelautoriteit* organised a transparent, non-discriminatory procedure for granting totalisator licences according to a comparative test. The totalisator licence is currently in the hands of a private company: *ZEbetting & Gaming Nederland B.V.*

### 2.5.4 *Risk assessment by individual licensing for open schemes*

For gambling markets with a theoretically indefinite number of licences, the *Kans-spelautoriteit* assesses each licence application individually, based on the extent of risk

18 ECLI:EU:C:2010:307 (Betfair).
19 ECLI:NL:RVS:2018:1466/1467.

to the public interest. The *Kansspelautoriteit* does not conduct an overall assessment of whether an individual application for licensing on the market in question would jeopardise the *cumulative* risks to public interests. Unlike some countries (e.g. Belgium), but in line with others (e.g. Denmark and the United Kingdom), the legislature in the Netherlands has opted not to limit the number of online licences in the Remote Gambling Act.

### 2.5.5 *Municipal licensing for gaming machines*

Municipal authorities grant licences to slot-machine halls, as well as to hospitality establishments with slot machines and to certain lotteries. In doing so, municipal authorities are free to pursue their own establishment policies (e.g. by completely prohibiting gaming-machine halls, limiting their number, raising the minimum age or restricting opening hours), thereby influencing market regulation at the local level.

## 2.6 Public interests at the centre of licensing

Within the licensing regimes outlined above, the *Kansspelautoriteit* executes its statutory duties, as listed in the Introduction. The public interests of addiction prevention, consumer protection and the fight against crime and illegality play a central in this regard. In accordance with the aforementioned principle of the Market Supervision Council, the *Kansspelautoriteit* strives to achieve balance in the consideration of private and public interests. We elaborate on this point in more detail below.

### 2.6.1 *Balance of interests*

The public interest is limited to the three pillars of addiction prevention, consumer protection and the fight against crime and illegality, as identified in legislation. According to European case law, the government is not permitted to use revenues for the public treasury and/or charities to justify any restriction on the free movement of services or goods. Notwithstanding the valuable contributions that gambling revenues make to Dutch society, European jurisprudence indicates that such contributions may be only a *beneficial side effect*, and they cannot constitute independent justification for any restriction of the free movement of the services of gambling operators.[20] This issue is addressed in greater detail in Section 3.3.5.

Private interests are divided into the vested interests of existing license holders and those of new entrants. In accordance with the principles of EU law and the general principles of good administration – particularly the obligation of transparency and equality – the *Kansspelautoriteit* does not assign precedence to vested interests over the interests of new entrants, or *vice versa*. Moreover, in principle, the public interest takes precedence over the private interests of licence holders and new entrants.

20 ECLI:EU:C:1999:514 (Zenatti).

### 2.6.2 *Lawfulness supervision for contributions to charities*

The licences for lotteries and sports betting entail levy obligations to the state, sports organisations and other charities. The *Kansspelautoriteit* has a statutory duty to monitor the lawfulness of such remittance obligations. The relevant licences may contain both a minimum percentage of remittance and, in some cases, earmarked beneficiaries (e.g. the Dutch foundation for horse racing and trotting [Stichting Nederlandse Draf- en Rensport] and the Netherlands Olympic committee and national sports federation [NOC*NSF]).
License holders for 'Article 3' lotteries are required to pay 40% of their turnover each calendar year, with at least 80% of these funds being paid to one or more beneficiaries with ANBI status. The ANBI requirement is waived if, instead of 40%, 75% of the total turnover from the lottery is transferred. The *Kansspelautoriteit* is not charged with supervising the distribution of these remittances across the various charities, nor is it responsible for the distribution of the remittances across the various social sectors.

## 2.7 Advisory roles

In addition to executing its statutory duties, the *Kansspelautoriteit* provides solicited and unsolicited advice to Ministries and other supervisory agencies. In such advice, the *Kansspelautoriteit* identifies any bottlenecks or contradictions in the system with regard to the organisation or supervision of the market.

In the legislative processes surrounding the casino market and in the official working groups on the reorganisation of the lottery markets, the *Kansspelautoriteit* has actively participated and advised the Ministry of Justice and Security and the Ministry of Finance concerning the potential effects of possible market organisations on the three specific public interests. The actual policy is the responsibility of the relevant Ministers.

The *Kansspelautoriteit* also serves as an advisor to the Authority for Consumers and Markets (ACM) with regard to merger decisions involving parties in the gambling market. In its opinion, the *Kansspelautoriteit* weighs the various risks in terms of the extent to which competition and yield optimisation on the part of license holders are justified in relation to the public interests of addiction prevention, consumer protection and the fight against crime and illegality. The organisation expressed such an opinion in 2015 when the *Staatsloterij* (national lottery; *SENS*) and the lotto-games organisation (*De Lotto*) merged to form *De Nederlandse Loterij*.

# 3 Evaluation criteria for market organisation

## 3.1 Introduction

In its Strategy for 2020-2024, the *Kansspelautoriteit* places the consumer at the heart of its motto '*playing safely*'.[21] If consumers are actually to be able to play safely, well-functioning gambling markets are necessary. Section 2.5 describes the arrangements of the current gambling markets, as determined by the policy vision of recent decades, which are aimed at channelling players towards a restrictive legal supply. The most recent Cabinet vision on games of chance (see Section 3.3.4) continues the idea of channelling, while allowing additional room for an appropriate and attractive supply, without losing sight of vulnerable players and the risks of gambling.

The development of a coherent vision on the organisation of the gambling market within the understandings of current policy calls for an analytical framework that allows the integrated analysis of the public interest (as defined in policy), the economic characteristics of gambling markets and the manner in which the market and consumers can fail. A broad welfare framework that allows for abstraction from the historical context, as needed, would be ideally suited to such a coherent analysis, and it could provide insight into areas in which public intervention is needed–and, if so, how–and in which it is not.

In this section, we discuss the assessment criteria for market outcomes and the possible motives for intervening in specific market outcomes. We also introduce the welfare framework. In Section 4, we use this framework to support three specific public interests: addiction prevention, consumer protection and the fight against crime and illegality. The choice behaviour of gambling consumers cannot always be understood from a rational perspective. For this reason, insights from the behavioural sciences and other disciplines have also been incorporated into the analysis. Finally, we explicitly identify situations in which other motives for government intervention could be justified.

*Reading guide*

This section provides an analytical framework for analysing public interests in gambling. In Section 3.2, we discuss the public interest in general, how a welfare perspective can help define the public interest in concrete cases and the extent to which government intervention is needed in order to promote these interests. Section 3.3 addresses four criteria for assessing market outcomes: efficiency, consumer protection, equitable distribution and moral acceptance. Section 3.4 elaborates the concept of welfare, according to which the criteria of efficiency and consumer protection can be measured.

21 Strategie 2020-2024, Kansspelautoriteit (2020).

## 3.2 Public interests: How and what

In the publication *Toezicht op publieke belangen (Supervision of public interests), as* referred to in Section 1, the WRR advocates a vision on supervision that proceeds from the public interest. It does not answer the question of what the public interest is in a specific policy domain, nor does it examine the most desirable or optimal extent to which the public interest should be represented. In the 2000 publication *Het borgen van het publiek belang* (*Safeguarding the public interest*), the WRR addresses the question of

> '*...how best to safeguard public interests – in other words, social interests for which the government takes ultimate responsibility*' (WRR, 2000, p. 9).[22]

The WRR distinguishes the 'what' question from the 'how' question. The 'what' question concerns the social interests that the government classifies as public interests, and the 'how' question concerns the way in which these interests are promoted and who bears operational responsibility for them. With regard to the 'what' question, the WRR notes that no government is needed to promote many *social* interests. Representation by the market is also possible without government intervention. A *public* interest exists only in the following case:

> '*...the government takes an interest in the representation of a social interest on the basis of the conviction that this interest would otherwise not be properly served*'
> (WRR, 2000, p. 20).

Existing legislation formulates three public interests for games of chance.[23, 24]
In this respect, the *Kansspelautoriteit* supervises the legal standards to guarantee these interests:

1. Prevention gambling addiction
2. Protecting consumers
3. Fighting crime and illegality

The WRR does not identify the cases in which the representation of societal interests calls for government intervention or possible reasons for classifying specific aspects as being in the public interest. For this purpose, primacy is reserved to the political system. The analytical framework of welfare economics could help politicians to address the 'what' question. This framework is elaborated in a publication entitled *De Calculus van het publieke belang* (The calculus of the public interest).[25]

22 Wetenschappelijke Raad voor het Regeringsbeleid (2000). *Het borgen van publiek belang*. Rapporten aan de Regering 56.

23 The three public interests were formulated for the first time in the Cabinet's response to the MDW report *Nieuwe ronde, nieuwe kansen. Parliamentary Papers II* 2000/2001, 24036, 180, p. 4.

24 Although the three public interests are not formally anchored in legislation or regulations, they are mentioned in the Explanatory Memorandum to the Remote Gambling Act. *Parliamentary Papers II* 2013/2014, 33996, 3, p. 5.

25 Teulings, C.N., Bovenberg, A.L., & Van Dalen, H.P. (2003). *De Calculus van het publieke belang*. Kenniscentrum voor Ordeningsvraagstukken, The Hague.

The starting point in this analytical framework, which is also used in this market vision, is a hypothetical free market with no government intervention and/or market imperfections, in which all consumers act rationally according to their own preferences. This is because optimal market outcomes are achieved in this ideal picture (see Section 3.3.1). Reality is obviously messier, and the analysis requires identifying the imperfections that occur in practice, as well as their relative persistence and scope. It is for this reason that we use this broad analytical framework to address non-economic public interests, market imperfections and less rational motivations and behaviours of people. The analytical framework integrates these notions into a coherent frame of thought, which also addresses the imperfections of public intervention.

As elaborated in greater detail in Section 4, consumers of games of chance often encounter imperfect information and a wide variety of behavioural traps. Such *market failures* lead to sub-optimal outcomes – including addiction problems – thereby legitimising government intervention (e.g. through regulation and supervision, taxes or subsidies). Conversely, in a market with no persistent or significant market failure, there is no reason for government intervention from the perspective of welfare. Governments may therefore also have other motives for intervening in specific market outcomes. We discuss these non-economic motives for intervention later in this section.

The risk of *government failure* requires that public intervention to be carefully designed, in addition to being effective, proportionate and consistent.[26, 27] It is not always possible to eliminate all market failures completely and, even if it is possible, their elimination is likely to come at disproportionately high social costs. It is therefore important to weigh the costs and benefits of public intervention against the costs of market failure.

## 3.3 Assessment of market outcomes

Market failure is an abstract concept. Its interpretation in classic economic theory is relatively narrow: a market outcome that is sub-optimal in terms of *efficiency*. In contrast, this market vision is based on a broader definition of market failure, which includes systematic tendencies on the part of consumers to deviate from fully rational choice behaviour. Such divergent choice behaviour falls within the domain of behavioural economics, and it is referred to as *consumer failure*. In this document, we adopt the criterion of *consumer protection* as an independent motive for state intervention in the event of consumer failure.

26 The general principles of good governance formulated in the *Algemene wet bestuursrecht* (General Administrative Law Act) also entail a statutory obligation for the government to exercise due care, sound reasoning and proportionality in all of its decisions.

27 Integraal Afwegingskader voor beleid en regelgeving.

In addition to efficiency and consumer protection, this broad interpretation of market failure allows for market outcomes to be judged according to such aspects as *fair distribution* and *moral acceptance*. As elaborated below, these two criteria cannot be normatively substantiated from a welfare perspective. The economic sciences can nevertheless provide insight into the costs and benefits of the relative weight assigned to such criteria in political-administrative considerations.

### 3.3.1 *Efficiency*

Efficiency is a central concept in the allocation of scarce resources. Some allocations succeed better than others in meeting our almost unlimited needs. The economic concept of *Pareto efficiency* is used to describe a situation in which there is no alternative distribution of resources that improves the welfare of at least one person, while no one is worse off.[28] Similarly, a *Pareto improvement* is a change in the allocation (i.e. transaction) that brings it closer to a Pareto-efficiency distribution. In a free market with no imperfections or transaction costs, such changes are achieved through the actions of the 'invisible hand'[29] of supply and demand.

In imperfect markets, Pareto improvements may require public intervention. At the same time, however, the requirement that no one is allowed to lose out on such a Pareto improvement makes policy-making practically impossible. Hardly any measure can guarantee that no one will lose out in terms of welfare. For this reason, political economists generally apply a more flexible criterion: the Kaldor-Hicks criterion.[30] A policy measure or transaction is Kaldor-Hicks-efficient if it delivers at least a *potential* Pareto improvement. This means that the winners are able to compensate the losers. The Kaldor-Hicks criterion underlies social cost-benefit analyses (SCBA). In SCBA, all positive and negative welfare effects (i.e. costs and benefits) of a measure or investment are charted and calculated. The SCBA is positive if the total benefits exceed the total costs. The measure or investment is then Kaldor-Hicks-efficient.

In a free market without imperfections, efficient market outcomes are ensured by entry and exit, as well as by mergers and acquisitions. In markets with barriers to entry (e.g. statutory gambling monopolies), efficiency safeguards are not self-evident. The same applies to innovations, i.e. improvements in the production process that reduce production costs and/or the introduction of new products and services. Innovations for which there is sufficient demand to cover development costs generally increase social welfare. In the case of regulated products (e.g. games of chance), it is important for the regulations to provide companies with sufficient space and investment security for game development and for the infrastructure needed in order to ensure an attractive supply of gaming products and the profitable

28 Named after the Italian economist Vilfredo Pareto (1848-1923).
29 This term comes from the Scottish economist Adam Smith (1723-1790).
30 Named after the British economists Nicholas Kaldor (1908-1986) and John Hicks (1904-1989).

operation of efficient companies. It is also important for regulation to be sufficiently flexible and not too detailed to respond to innovation and technological developments emerging from a dynamic market (e.g. gambling).

### 3.3.2 *Consumer protection*

Inefficient market outcomes can usually be determined objectively: well-informed consumers know whether certain products are too expensive, of insufficient quality or simply not to their taste. In cases of consumer failure, consumers are not sufficiently aware of their own preferences or are insufficiently able to represent their own interests autonomously and rationally. In the case of widespread consumer failure, or for consumer failures that have far-reaching consequences at the individual level (e.g. with regard to a consumer's own mental health), there is often public support for having this remedied by the government (as discussed in detail in the next section).Such forms of consumer protection can nevertheless be *paternalistic*. In situations involving large differences in *consumer empowerment* between different population groups (e.g. in terms of wealth, language skills and/or the ability to process complex information), one subject of serious debate concerns the legitimacy of measures that are aimed at protecting vulnerable consumers, but that can be regarded as paternalistic for resilient consumers who are able to make informed choices for themselves.

### 3.3.3 *Just distribution*

In addition to efficiency and consumer protection, market outcomes are characterised by other aspects that are not generally subject to any *prescriptive* (normative) economic-theoretical pronouncements, but which may give rise to public intervention. These aspects are of a more *descriptive* character, and they are part of the political consideration of conflicting societal preferences. Economic science can inform politicians about the consequences of such interventions for social welfare, as well as about the most efficient way to achieve the intended market outcomes. For example, the Kaldor-Hicks criterion considers only the overall welfare improvement of a measure or investment, while ignoring the distribution of such improvement throughout society. In practice, however, the total distribution of income and wealth and the impact of a market or measure on this distribution can be socially undesirable. Such cases call for government intervention, as the redistribution of wealth amongst consumers is unlikely to be sufficiently voluntary.

Games of chance with large grand prizes (e.g. lotteries) do involve a partly voluntary redistribution. In such games, each participant contributes a small amount for each lottery ticket, and only the winner of the grand prize improves significantly on balance. The *outcome* of the redistribution cannot be influenced, however, and it is therefore involuntary. In tax law, a gambling tax on large prizes is justified according

to the *windfall profit* principle. In other words, because the winnings are not obtained through frugality and/or virtuous labour, the disruptive effect of the tax is limited in that respect.[31]

### *3.3.4 Moral acceptance*

It is also conceivable that a market outcome or activity could be considered immoral by part of society. This is, by definition, a value judgment that seeks to deny others the opportunity to engage in certain activities. Contrary to the situation outlined in the previous paragraph, it is not distribution that is undesirable, but consumption *as such*. One party seeks to deny another party the right to consume a good or service, without the first party wishing to consume the good or service, and regardless of whether its consumption by the other party would pose a risk to anyone.

Like other '*vices*' (e.g. alcohol, tobacco, drugs, prostitution, pornography), games of chance have traditionally been viewed with suspicion in various cultures and regarded as immoral or sinful by many religions. When such views are widely shared within a society, the democratic process can lead them to give rise to restrictions, prohibitions or other interventions that are independent of the aforementioned considerations of efficiency, consumer protection or fair distribution.[32]

Problematic playing behaviour is sometimes also regarded as morally culpable behaviour: weakness of will and character could make it impossible for some people to resist temptation.[33] The moral condemnation and stigmatisation of people with gambling problems could lead to shame on the part of those involved, in addition to impeding timely diagnosis and adequate treatment, and hindering recovery.[34] The labelling of people with gambling disorders as 'gambling addicts' could also contribute to stigmatisation.[35] In this vision document, we have attempted to avoid such designations as much as possible.

Social moral judgments concerning gambling are strongly bound to time and place. The Law of 20 May 1911 (*Zedelijkheidswet*), which was intended to combat indecency and curb the desire to play, largely restricted the supply of games of chance in the Netherlands. At the same time, however, the Explanatory Memorandum accompanying this legislation did contain a caveat that some efficiency interest (e.g. infringement of property rights) must be involved, even for acts that are regarded as immoral:

31 A gambling tax can nevertheless lead to welfare losses, due to reduced consumption or a flight into the illegal circuit. The magnitude of this effect depends on price elasticity, amongst other factors.

32 Roth, A.E., 2007. Repugnance as a Constraint on Markets. *Journal of Economic perspectives*, 21(3), pp.37-58.

33 Henderson, N.L. and Dressler, W.W., 2017. Medical disease or moral defect? Stigma attribution and cultural models of addiction causality in a university population. *Culture, Medicine, and Psychiatry*, 41(4), pp.480-498.

34 Bruin, D.D., Fris, M., Braam, R. and Verbraeck, H., 2008. Kansspelen in andere aarde: Een onderzoek naar kansspelproblematiek onder allochtone Nederlanders.

35 Blaszczynsk, A.i, Swanton Th. B. and Gainsbury, S.M. (2020) Avoiding use of stigmatising descriptors in gambling studies, *International Gambling Studies*.

> *The State is less suitable to be a moral guardian and, as a punishable legislature, the State should act only when the immoral act could potentially violate the property of others or of the community.*[36]

When the current Gaming Act was introduced in 1964, the moral aim of gambling regulation was no longer *to curb the desire to play*, but to *temper the sense of play to some extent*.[37]

In the Schindler ruling, the European Court of Justice confirmed that Member States are free to make their own interpretations of the moral acceptance of games of chance:

> *First of all, it is not possible to disregard the moral, religious or cultural aspects of lotteries, like other types of gambling, in all the Member States.*[38]

The most recent vision of the Dutch government vision on gambling dates back to 2011:

> *For centuries, people all over the world have been experiencing pleasure and excitement (or amusement) from the knowledge that a small investment can lead to a big prize. Modern games (e.g. poker), either in person or by internet, offer people options for spending their leisure time. In my opinion, consumers should have access to a suitable and attractive range of games of chance, if they so desire.*

> *At the same time, I believe that it is important to protect vulnerable groups, including young adults, as far as possible from the risk of developing gambling addiction.*[39]

The current political rationale for the regulation of gambling – as reflected in the current Coalition Agreement – mentions the reduction of gambling addiction as a particular concern, although it does not take any moral stand on gambling, nor does it pass judgement on individuals suffering from gambling disorders.[40]

### *3.3.5 Other criteria*

Efficiency, consumer protection, justice and morality can be used to substantiate regulations from a political or economic perspective. European Union law also imposes legal requirements on the restrictions that Member States may impose on the free movement of persons, goods, services and capital. Such restrictions are permitted only if they are proportionate and non-discriminatory, and only if they are justified by over-riding reasons relating to the public benefit.

36 *Parliamentary Papers II*, 1908/1909, 293, 3, p. 1.
37 *Parliamentary Papers II*, 1963/1964, 7603, 3, p. 9.
38 ECLI:EU:C:1994:119 (Schindler), paragraph 60.
39 Parliamentary Papers II, 2010/2011, 24557, 124, p. 3.
40 *Vertrouwen in de toekomst. Regeerakkoord 2017 – 2021* (VVD, CDA, D66 & ChristenUnie).

The privileges that holders of scarce gaming licences have acquired in the past are also relevant. These privileges raise questions concerning whether an incumbent provider is still the most efficient party. If circumstances change, the scarce gaming licences may no longer be granted or renewed 'privately', but according to more objective and appropriate distribution mechanisms (e.g. auctions or comparative tests). Such tools can help regulators to ensure that each licence will go to the most efficient or innovative party, or to the party best able to safeguard public interests (e.g. preventing addiction).

Like many other European countries, the Netherlands has a national lottery and casinos, the proceeds of which go to the treasury. In addition, the Netherlands has several lottery and sports-betting operators, who are obliged to donate to various charities. In the Zenatti ruling, the European Court of Justice determined that the compulsory contribution of the proceeds from games of chance is not permissible unless it:

> *... constitutes only an incidental beneficial consequence and not the real justification for the restrictive policy adopted. [...] even if it is not irrelevant that lotteries and other types of gambling may contribute significantly to the financing of benevolent or public-benefit activities, that motive cannot in itself be regarded as an objective justification for restrictions on the freedom to provide services.*

Any revenue for the treasury or the promotion of philanthropy should thus be a beneficial side effect, and it cannot serve as independent justification (or a 'fourth public interest') for government intervention in games of chance. The relationship between gambling and philanthropy is discussed further in Sections 4.6.3 through 4.6.5.

## 3.4 Welfare concept

The efficiency criterion discussed in the previous section and associated with SCBA considers the effects of a measure, activity or investment on overall social welfare. In markets, a general distinction is made between the welfare effects for consumers (*consumer surplus*) and the welfare effects for producers (*producer surplus*).

### *3.4.1 Consumer surplus*

The consumer surplus is the net wealth that all consumers derive from an activity together. It is measured as the maximum willingness of consumers to pay for a good or service, minus the actual amount charged for it. This difference (i.e. the surplus) is thus the amount that consumers would have been willing to pay in excess of the amount that they actually paid.

On the condition that consumers are properly informed and act autonomously and rationally, voluntary transactions will always create consumer surplus. Otherwise, they would not occur. It is important to examine such transactions from an *ex-ante* perspective, instead of focussing on the *ex-post* result. For example, consumer surplus is created when an individual buys a lottery ticket that does not win a prize. This is because the initial hope of winning a big prize and the tension of the draw served as reasons for the player to buy a lottery ticket. As long as the purchase was voluntary, those benefits outweighed the costs. The experience of lottery players changes after the draw. Although the winners experience significantly more benefits than the losers do, the losers have also been able to dream of being amongst the lucky ones in the time leading up to the draw. Even individuals leaving a casino with less money than they entered with have often profited from an evening out, just as if they had gone to a cinema, a musical performance or a sporting event.

One feature of some markets is that consumers affect the surplus of others. These effects can be negative, as in the case of arcades or casinos where queues become very long when they are busy. They can also be positive, however, as in the case of a lottery, in which a larger group of players allows for a larger grand prize or jackpot. Such network effects are addressed in Section 4.7.

### *3.4.2 Producer surplus*

The producer surplus is the mirror image of the consumer surplus. It is the profit that producers make on their sales, after the deduction of all fixed and variable costs, including a market return on the capital employed (i.e. the cost of capital). In SCBA, the producer surplus is generally counted alongside the consumer surplus in order to determine the total welfare effects of a given measure or investment.

One argument for doing so is that corporate profits ultimately accrue to shareholders, and thus ultimately to consumers. Although an issue of distribution may be involved in such situations, the distribution of these company profits (e.g. through pension funds) is likely to be broader than is often thought at first sight.[41]

A commercially sound gambling sector is another important condition for the creation of consumer surplus. Employment with gambling operators is not an end in itself, however, except when jobs are created for workers who have no other opportunities in the labour market. From the perspective of efficiency, it is generally better to provide more production (of the same quality) with fewer people. Labour-market and training policies are thus the most appropriate policy tools for transforming short-term unemployment in one sector into additional labour available to other sectors.

41 For an extensive treatise on reasons why the government should normally assign equal weight to producer surplus and consumer surplus, we refer to the following standard work: Motta, M., 2004. *Competition policy: Theory and practice*. Cambridge University Press.

### 3.4.3 *Transfers and deadweight loss*

One important conclusion of the equal weighting of consumer and producer surplus is that, if suppliers in a market are able to raise prices without reducing demand, this should theoretically have no impact on welfare. Any decrease in consumer surplus is accompanied by a commensurate increase in producer surplus. This is referred to as a *transfer*, which has no welfare effect. It nevertheless does have a distributive effect that can be regarded as unfair.

Even when the government provides a benefit or subsidy to consumers or businesses, these transfers have no direct welfare effects. The same applies to winnings and the corresponding gambling debts for others. For example, when a player loses €1,000 to someone else, it is a transfer. Even if the debtor is unable to pay the debt, it remains a transfer (albeit in the opposite direction), with no net welfare effect.[42]

In many cases, however, a price increase will lead to a reduction in demand for a product. Other measures (e.g. restrictive policies, taxes and administrative burdens) can also lead to a reduction in demand and a loss of welfare. Such welfare losses due to reduction in demand are known as a *deadweight loss*.

Conversely, some transactions that do occur would not take place in an efficient market. For example, such transactions could result when an applicant under-estimates costs or over-estimates benefits, or when the applicant and provider fail to take into account negative effects on third parties who are not involved in the transaction. These '*externalities*' are discussed in detail in Section 4.6.

42 Debt assistance is nevertheless accompanied by a negative welfare effect. Feeling forced to pay off debts by committing criminal acts also represents a loss of welfare.

# 4 Market failure in games of chance

## 4.1 Introduction

In traditional regulated sectors (e.g. telecommunications, energy, post and transport), market analyses generally proceed from the supply side of the market. In such utilities, the production technology of the physical infrastructure is subject to economies of scale, scope or density, which act as barriers to entry, often leading to natural monopolies. Competition is therefore safeguarded through price, cost, supply and access regulation, with incentives for investment in maintenance and innovation.

In gambling markets, such market failures are more limited on the supply side and, in the absence of regulation and other public interventions, the main bottlenecks are on the demand side. Players encounter imperfect information and behavioural traps. Imperfect information refers to the incomplete or incorrect acquisition and processing of information on the product characteristics of games of chance. In the case of behavioural traps, even perfectly informed consumers may fail to act in their own interest.

Games of chance are comparable to financial products in terms of information problems and behavioural traps. In such markets, consumers are protected and enabled to make informed and responsible choices by information obligations on the part of companies, as well as by the 'nudging' of consumer behaviour. One important difference is that games of chance can also be addictive, whereas this is generally less of an issue in financial markets.

Another traditional reason for market regulation has to do with externalities. These are circumstances in which consumers and/or producers do not consider the full social benefits or costs of transactions in their decisions. In the case of negative externalities, some of the costs are passed on to third parties who are not involved in the transaction. This can result in excessive levels of production and consumption. Examples include the costs of gambling addiction to the immediate environment and the costs of gambling-related crimes (e.g. money laundering).

In contrast, with positive externalities, third parties profit at no charge from the income emerging from transactions carried out by others. This can result in insufficient levels of production and consumption. Classic examples within the context of gaming markets include public goods (e.g. sports, social welfare, culture, healthcare, development work) that are funded at least in part by philanthropy. In many countries, lotteries have historically been closely intertwined with philanthropy and used to make a positive contribution to society. Revenues from sports betting are also partly accrued in order to promote sports.

Games of chance also involve economies of scale on the demand side. In such 'network effects', one player increases the gaming pleasure – or, more generally, the consumer surplus – of other players (e.g. by increasing the jackpot of a lottery or by enhancing the diversity of the company at the poker table in a casino). As with the aforementioned physical network sectors, network effects on the demand side can also lead to economies of scale or even natural monopolies, along with the potential problems of competition that they can create.

*Reading guide*

In Section 4.2, we consider the economic characteristics of gambling and the reasons for participation. Section 4.3 provides a discussion of imperfect information in gambling, and Section 4.4 focusses on behavioural traps that can occur even in the absence of information problems. In Section 4.5, we address gambling addiction as the most significant behavioural trap, after which we discuss the negative and positive externalities of gambling (Section 4.6). Imperfect competition due to technology and network effects are covered in Section 4.7, with attention to the undesirable effects of competition on addiction prevention, advertising and the control of financial transactions. Section 4.8 concerns the technology and specific risks of *online* gambling, and Section 4.9 identifies the public interests associated with various market failures.

## 4.2 Product characteristics of games of chance

In this section, we describe the distinctive product characteristics of games of chance, along with the main motivations and conditions leading consumers to participate in games of chance, as identified in the literature.[43]

### *4.2.1 Gambling as a loss-making financial product*

Games of chance are transactions that are conditional on uncertain events. These transactions can be concluded either between consumers (often with a provider as an intermediary) or directly between a consumer and a provider.[44] For both types of games, the expected return for the consumer is negative: 'the house always wins'. This is an important difference from financial markets, in which the expected rate of return is generally positive.

For games of chance between players, the provider retains a fixed amount or percentage of each transaction (e.g. the *rake* in poker at a casino – so that players can win money only from each other, while together incurring a negative return. In games of chance that involve skill (e.g. poker), skilled players can have a positive expected return, depending on the skill of their opponents. For games of chance against the house, each player has a negative expected return, as the rules of the game statistically imply a financial loss in the long run.

43 Leidraad Beoordeling Kansspelen, Kansspelautoriteit (2018).

44 These two categories are known as *jeux de cercle* (lotteries, pari-mutual betting and casino games, like poker and bingo) and *jeux de contrepartie* (bets offered by bookmakers, gaming machines and casino games against the house, like roulette and blackjack).

Most consumers generally try to avoid negative financial risks (e.g. by taking out health insurance and burglary insurance). Even for risks with a positive expected return, consumers (and investors) require compensation: they prefer certainty to risk, and they are likely to require higher returns on higher risk investments in financial markets.[45] Such risk aversion makes it difficult, at least in theory, to understand why many of the same consumers voluntarily seek out the financial risks of gambling. Given the negative expected return, gambling is not a good financial investment.

The literature distinguishes various consumer models that maximise the expected utility of their financial assets, while simultaneously enjoying gambling and insuring themselves.[46, 47, 48] Such consumer behaviour can be explained in part by indivisible goods or imperfect capital or labour markets. One example involves the ability to escape from poverty or retire early from work by winning the grand prize in a lottery.[49] Such 'rational' models are valid only under strict conditions, and they describe only part of consumers' motives for participating in games of chance.

### *4.2.2 Games of chance as a source of entertainment*

A more mundane explanation for the fact that many consumers are attracted to games of chance despite the negative expected returns is that such games are a source of entertainment. For example, in the Netherlands, millions of people regularly take part in a lottery, and casinos draw more than a million unique visitors each year. Games of chance are also intertwined with the entertainment industry: the results of lotteries can be seen on TV, race courses can be used to make wagers on horse races and trotting races, and a gaming establishment can be a good place to eat and play music.

In the economic literature, the pure entertainment utility of gambling has been modelled as such by adapting the classic model of expected utility maximisation.[50] Although such models provide a good description of recreational participation in gambling – with a limited share of disposable income and wealth – problematic playing behaviour and gambling addiction remain unexplained.

One recent trend in literature focusses on analysing the utility of *excitement* and *surprise* as fluctuations in a series of successive events.[51] In the processing of

45 See, for example, Chapter 8 in R. Brealey, S. Myers and F. Allen (2017, 12th ed.). *Principles of Corporate Finance*, McGraw-Hill.
46 Friedman, M. and Savage, L.J., 1952. The expected-utility hypothesis and the measurability of utility. *Journal of Political Economy,* 60(6), pp.463-474.
47 Markowitz, H., 1952. The utility of wealth. *Journal of political Economy*, 60(2), pp.151-158.
48 Hartley, R. and Farrell, L., 2002. Can expected utility theory explain gambling? *American Economic Review*, 92(3), pp.613-624.
49 Dobbs, I.M., 1988. Risk Aversion, Gambling and the Labour-Leisure Choice. *Scottish Journal of Political Economy*, 35(2), pp.171-175.
50 Conlisk, J., 1993. The utility of gambling. *Journal of Risk and uncertainty*, 6(3), pp.255-275.
51 Ely, J., Frankel, A. and Kamenica, E., 2015. Suspense and surprise. *Journal of Political Economy*, 123(1), pp.215-260.

unexpected events, reward processes related to addiction take place in the human brain.[52] How excitement and surprise make gambling more addictive has yet to be fully established.

In addition to the elements of excitement and surprise that are inherent in all games of chance, some games –(e.g. poker and sports betting) also include the elements of play and competition. Examples include knowledgeable sports connoisseurs and experienced poker players who can exercise (or who think they can exercise) a limited degree of influence on the outcome of the game.[53] Such players also derive a certain level of self-esteem from good results.[54]

### *4.2.3 Price and income elasticity*

Quite apart from the question of why consumers participate in games of chance at all, it is useful to establish the relative sensitivity of expenditures on games of chance to the price of the product and the disposable income of the consumer. This is an indication of how influential consumers are with regard to financial-management tools. In the economy, price sensitivity is measured by 'elasticities'. Price elasticity refers to the relationship between the percentage decrease in gambling expenditures and the percentage increase in prices.

**The price concept in games of chance**

The economic concept of a product's price usually corresponds to the purchase price. For games of chance, the purchase price is often denoted as the *wager* (e.g. the price of the lottery ticket, the amount staked on a bet, the number of chips placed on a roulette or poker table, or the cash inserted into a gaming machine). In games of chance, the *prize* refers to the amount won by a player.[55] Neither the wager nor the prize are suitable as a price measure for games of chance. For example, 'fractional-ticket' lotteries pay out only the corresponding fraction of the nominal prizes to be won.

A better price concept for games of chance is the risk per amount wagered. The *effective price* is equal to 1 minus the pay-out rate (i.e. the percentage of the bet retained by the provider).[56] We use this effective price to represent the price elasticity of games of chance. This price elasticity also applies to games of chance in which the lottery ticket price, betting stake, chips placed, or cash inserted is limited by maximum amounts: given the wager, the price elasticity measures the response to a higher pay-out rate.

52 Redish, A.D., 2004. Addiction as a computational process gone awry. *Science*, 306(5703), pp.1944-1947.
53 Van Loon, R.J.P., van den Assem, M.J. and van Dolder, D., 2015. Beyond chance? The persistence of performance in online poker. *PloS one*, 10(3), p.e0115479.
54 Huizinga, J., 1938. Homo ludens: proeve eener bepaling van het spel-element der cultuur. Amsterdam University Press (2008).
55 In Dutch, the same word (*prijs*) refers to both the purchase price and the prize.
56 In the literature, the effective price (the amount that must be wagered in order to win an average of €1 in prize money) is also represented as 1 divided by the pay-out rate.

With a price elasticity between -1 and 0 (e.g. -0.5), we speak of a product with *inelastic* demand: demand does not react very strongly to changes in price. With a price elasticity less than -1 (e.g. -2.0), demand is *elastic* and the consumer is therefore more price-sensitive.

In competitive markets, the market-wide price elasticity is smaller than a supplier-specific price elasticity. If the price is raised by only one operator, some players are likely to switch to competitors, even if they offer imperfect substitutes. If all operators raise prices in response to cost-increasing factors (e.g. taxes), it will have a more limited effect on demand. Operators reduce their price elasticity by offering different games.

The price elasticity differs across games of chance (for an overview, see the standard work of Williams and Siegel, 2013).[57] The demand for lotteries is subject to limited price elasticity.[58] Moreover, subscriptions reduce the price elasticity for individual lotteries. The demand for casino games is more price elastic than the demand for lotteries.[59] American casinos distinguish themselves from each other through loyalty cards that reward cumulative gaming behaviour. This reduces the likelihood that players will switch to other casinos, while increasing consumption at the casino's own location. Loyalty cards can also be used to allow for timely interventions in the event of excessive gaming behaviour.[60] Casinos and gaming halls in the Netherlands also use customer-loyalty cards. To date, no studies have been conducted on the price elasticity of the various types of games of chance in the Netherlands.

Income elasticity measures the ratio between the percentage increase in gambling expenditures and the percentage increase in disposable income. A product with income elasticity less than 1 is also referred to as a *necessary good*, and a product with income elasticity greater than 1 is referred to as a *luxury good*. As income increases, necessary goods are consumed less than proportionately, while luxury goods are consumed more than proportionately.

The previously cited international literature on price and income elasticities also regards lotteries as necessary goods that are consumed more than proportionally by consumers with relatively low incomes. According to international literature, casinos are luxury goods that are frequented more than proportionally by consumers with relatively high incomes.[61]

57 Williams, L.V. and Siegel, D.S. eds., 2013. *The Oxford handbook of the economics of gambling*. Oxford University Press.
58 Grote, K. and Matheson, V.A., 2013, The Economics Of Lotteries: A Survey Of The Literature. In The Oxford Handbook of the Economics of Gambling.
59 Nichols, M.W. and Tosun, M.S., 2013. The elasticity of casino gambling. In The Oxford Handbook of the Economics of Gambling.
60 Wohl, M.J., 2018. Loyalty programmes in the gambling industry: potentials for harm and possibilities for harm-minimization. *International Gambling Studies*, 18(3), pp.495-511.
61 Studies conducted in such locations as Las Vegas and Atlantic City report a limited income effect.

According to a 2016 survey of 5,873 Dutch consumers, on balance, games of chance are income-inelastic. Although average spending on games of chance is slightly higher for people with higher incomes, those with lower incomes spend more on games of chance relative to their net monthly income.[62]

Finally, there is the concept of cross-price elasticity: the ratio of the percentage decrease (or increase) in demand for one game of chance to the resulting price decrease in another game of chance. Operators in the same gaming market are generally substitutes for each other, even if there are many consumers who play with several operators. The operators in neighbouring markets may be either complementary or substitutable. If there are excessive differences between products, however, the cross-price elasticity is usually equal to 0. Lotteries and casino games are limited substitutes for each other, while horse and dog races are also substitutes, although they are individually complementary to lotteries and casinos.[63]

### *4.2.4 Effective number of players*

It is not only the prize package for games of chance that is skewed. At the player level, expenditures are relatively concentrated amongst a limited group of participants who play very frequently, especially in games of chance with a high risk of addiction. As a result, the average consumption of wagers, casino games and gaming machines should be interpreted with caution. The proportion of individuals within the population who sometimes participate in these games of chance is smaller than in the case of lotteries, and a relatively small percentage of players are also responsible for a large proportion of all expenditures.[64]

A better image can be produced by weighing individual players in proportion to their own expenditures or frequency of visits. Known as the *effective* number of players, this measure is derived from the theory of competitive economy, in which the effective number of competitors is a measure of market concentration. In a market with two large parties, each with a market share of 33%, and four small parties, each with each a market share of 8.3%, the weighted average market share is equal to 2 × 33%^2 + 4 × 8.3%^2 = 25%. An average company thus has a market share of 25%, such that there are four 'effective' competitors. In Sections 6.3 and 6.4 we thus calculate the effective number of players for betting, casino games and gaming machines.

Having introduced the special features of games of chance, we discuss the various market failures that are likely to occur in games of chance.

62 Based on a secondary analysis of data from: A. Kruize, M. Boendermaker, M. Sijtstra, B. Bieleman (2016). Modernisering Kansspelbeleid. Nulmeting 2016. Intraval/WODC.

63 Walker, D.M. and Jackson, J.D., 2008. Do US gambling industries cannibalize each other? *Public Finance Review*, 36(3), pp.308-333.

64 Based on a secondary analysis of data from: A. Kruize, M. Boendermaker, M. Sijtstra, B. Bieleman (2016). Modernisering Kansspelbeleid. Nulmeting 2016. Intraval/WODC.

## 4.3 Imperfect information

What are the chances of winning a prize with a scratch card? Are lottery draws fair, and are the winners shown on television real, or are they actors? Are the roulette tables in the casino clean, and are the pay-outs from gaming machines fair? Are the prize schedules of different games of chance comparable? Such questions are not easily answered by players themselves.

In many markets, sellers have more information about the goods and services they offer than their buyers. Because buyers have *imperfect information* in relation to the seller, there is *information asymmetry.* This is not necessarily a problem: a buyer can ask questions and experience the quality and other characteristics of the good or service when deciding whether to make a purchase. If the quality is disappointing or if the experience is different than expected, the buyer will seek redress or refrain from making new purchases. Providers know this, and they do their best to offer good quality and provide good information.

In some markets, however, imperfect or asymmetric information can lead to inefficient transactions: buyers make different decisions than they would if they were to have complete (or at least more complete) information. In addition, consumers are not always able to assess the quality of some offers. Such information problems can trigger a *race to the bottom.* Akerlof (1970) uses the second-hand car market to describe how information asymmetry can lead to *counterproductive selection*.[65] In this situation, good-quality supply disappears from the market, as it is not recognisable as such, and buyers are willing to pay only for average quality. This can create a vicious circle that undermines the proper functioning of markets and ensures that only poor-quality supply remains. In the absence of control or supervision, this could also happen with regard to the extent to which operators take measures to prevent gambling addiction.

### *4.3.1 Search, experience and trust goods*

In economics, a distinction is made between *search, experience and trust* goods and services. For search goods, the consumer must incur search costs, but is able to assess the properties of the product or service relatively well before entering into a transaction. One example within the context of the gaming market is the search for sports betting with the best odds. Apart from unobservable product characteristics (e.g. whether match-fixing has occurred in a sports match), such products and services are generally not associated with information problems that require government intervention. For example, for games of chance, there are several websites that make it easier for consumers to compare odds.

65 Akerlof, G.A., 1970, The market for lemons: Quality uncertainty and the market mechanism, *Quarterly Journal of Economics*, 84: pp. 488-500.

In the case of experiential goods, the consumer cannot make a good assessment until after consumption. Examples include the hospitality and comfort of amusement arcades and casinos. As is the case with search goods, government intervention in the provision of information is often unnecessary, as consumers tend to learn from their experiences and, moreover, share their experiences with others. On the internet and social media, reviews play an important factor in the decision-making processes of consumers. Regulation aimed at preventing 'bad buys' is often unnecessary, and the government can confine itself to minimum requirements in the interest of safety and public health.

The quality of trust goods and services is often difficult or impossible for the average consumer to assess, even after purchase and consumption. Many games of chance could be regarded as trust goods, as expressed in the questions posed at the beginning of this section.

The coarsest form of breach of trust occurs when a player does not receive the game winnings. The extent of this risk varies greatly between games of chance. In high-frequency games (e.g. casino games, gaming machines and, to a lesser extent, sports betting), most wagers are relatively small – both for each player individually and for all players in a round together – and the results are known quickly. A non-paying operator is therefore also likely to come to light quickly.

Games of chance with a high per-round wager and a long time between the wager and the result (e.g. most lotteries) have a risk that the operator will appropriate the wagers that have been placed. This risk also occurs with online gambling involving player accounts. Within the context of sports betting, the likelihood that third parties will manipulate the outcome (i.e. match-fixing) is a matter of trust. Such risks can provide justification for government intervention.

More subtle forms of breach of trust include the failure to pay out in accordance with the advertised rules and the creation of false expectations. This can also justify regulation. For example, in the case of roulette tables and gaming machines, it is difficult for consumers to assess for themselves whether such games are actually fair and whether each number actually has the same chance with each spin. By playing (or watching) more often, a player can make assessments and notice large deviations, but small irregularities that could significantly increase the game yield for the operator are difficult for consumers to detect or demonstrate.[66] In the case of gaming machines, the allocation of winnings and losses is determined electronically, and it is incomprehensible to consumers. For lotteries, the odds of winning the grand

66 In addition to thorough statistical knowledge, the identification of minor irregularities requires many (even hundreds of) hours of play before a player has sufficient observations to reject with sufficient certainty the hypothesis that the game of chance is fair.

prizes are so small that, no matter how many times individuals play, there is no way for them to assess the pay-out rate and fairness of the game based on their own observations.

### *4.3.2 Missing, complex or incorrect information*

Given that, in general, games of chance are trust goods, consumers must rely on the information provided by operators. This can legitimise a government role. Potential information problems for consumers include information that is missing, unnecessarily complex or difficult to fathom, or that is deliberately misrepresented.[67]

If the information provided is incomplete on crucial points, this can lead consumers to have false expectations about specific products or services and to make faulty (i.e. welfare-reducing) decisions on that basis. For example, individuals with an over-optimistic view of the odds of winning and the pay-out rate of a lottery or gaming machine might decide to play, although they would not play along if they had accurate information about it (unless the entertainment or excitement properties outweighed the risks).If this is the case for many participants, operators may be motivated to be deliberately sparing with such information (concealment). Under such circumstances, information obligations for operators (e.g. clear publication of the odds of winning and the pay-out rate) can be an important tool for helping consumers make the right decisions (empowerment).

It is important to note that people are sensitive to the way in which information is presented (framing). In a selection menu, people often choose the default option, the option in the middle or the option designated as the 'most popular'. While the government can make use of such preferences (e.g. by 'nudging' consumers in the direction of the most popular playing limit), operators can also try to steer consumers towards the option that is most profitable for the house.

According to a substantial body of research, however, the provision of information does not always work, and it can even be counterproductive (e.g. when it leads to information overload).[68] For example, it is well known that consumers rarely read the conditions of use for online services.[69] This is not just due to carelessness or irrational behaviour. Such behaviour could indeed be rational, given the time it takes to read such information and the likelihood that uncertainty will remain even after reading it, due to missing or extremely complex information.[70] From the perspective of welfare economics, transaction costs and search costs are just as real as other types of costs, and it may be rational to settle for an offer or level of information that is

67 OECD, *Roundtable on economics for consumer policy*. DSTI/CP(2007)1/FINAL. Paris, p.10.
68 Lee, B-K. & Lee, W-N. (2004), The Effect of Information Overload on Consumer Choice Quality in an Online Environment, *Psychology & Marketing*, 21(3), pp. 159-183.
69 Bakos, Y., Marotta-Wurgler, F., & Trossen, D.R. (2014). Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts, *The Journal of Legal Studies*, 43(1), pp. 1-35.
70 Maćkowiak, B., Matějka, F. & Wiederholt, M. (2020). Rational Inattention: A Review (October 2020). *CEPR Discussion Paper No. DP15408*, SSRN: 3723632.

considered 'satisfactory'. The provision of a great deal of information may even have the perverse effect of depriving many consumers of any information at all.

Operators may also be motivated to conceal important details by unnecessarily complicating the information that they provide. It may therefore be helpful to develop rules concerning the information provided and the way in which it is presented. In most cases, such rules are aimed at the less well-informed consumers. One good example is the financial information leaflet for complex financial products, which is now required in order to explain the consequences of entering into long-term and extensive commitments in understandable language. Examples within the context of games of chance include the publication of the odds of winning and the pay-out rate of a game.

A third – and potentially the most serious – information problem exists when operators deliberately provide false or misleading information, thereby deliberately misleading consumers. In most markets, operators do not get away with this (at least for long), as consumers eventually realise that they have been misled or deceived. Because many games of chance are trust goods, however, they are inherently vulnerable to such malpractices.

## 4.4 Behavioural traps

Classic economic theory is based on perfectly informed consumers, who are fully aware of their own preferences and needs, and who pursue them rationally. In the day-to-day practice of many markets, these principles are only met only in part. As discussed in the previous section, information problems can limit the ability of consumers to make the choices that best suit their preferences, thus possibly justifying certain forms of intervention. Even if they do have good information, however, consumers do not always act in accordance with their own preferences or self-interest.

Modern behavioural economics is based on a collection of observations concerning systematic deviations in consumer choice behaviour from the classical model. A number of insights, many of a psychological nature, are relevant to understanding the behaviour of consumers in gaming markets, as well as to the development of policy based on such understanding. The following sub-sections provide a brief discussion of the most relevant insights. More detailed discussions and literature reviews are available in many existing works, including the bestselling *Thinking, Fast and Slow* by Daniel Kahneman, who won the Nobel Prize for economics in 2002 and who provided the motivation for awarding the Nobel Prize for economics in 2017 to the behavioural economist Richard Thaler.[71]

71 Kungl. Vetenskapsakademien, 9 October 2017, *Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2017. Richard H. Thaler: Integrating Economics with Psychology.*

### 4.4.1 *Bounded rationality*

The concept of *bounded rationality* refers to the limitations (in terms of time, thinking power and attention span) that prevent humans from thinking through each individual choice or action perfectly.[72] People use a variety of general guidelines and behavioural patterns to arrive at reasonable choices quickly in common situations. Although these heuristics often work well in daily practice, they can lead to people to make choices that systematically deviate from what is in their own interest, especially in atypical situations (e.g. playing games of chance), even for people who do not exhibit problematic playing behaviour or have a gambling disorder. Consumers can protect themselves against such risks by adopting other general guidelines (e.g. by visiting casinos or gambling halls with a budgeted amount of money and without a debit card).

One example of bounded rationality is the tendency of many people to compartmentalise their financial choices into separate 'accounts' and trying to avoid closing these accounts at a loss.[73] This type of general guideline can help people to keep track of their finances. Within the context of gambling, however, the trend is *structurally* negative (the house always wins in the long run), and it is counterproductive to continue playing or even to increase wagers repeatedly in the attempt to make up for earlier losses (loss-chasing).[74]

Furthermore, many consumers experience more regret for what they lose compared to what they already have than they experience joy from their profits.[75] One example of the combination of loss aversion and jealousy can be observed in the National Postcode Lottery: residents who do not win the street prize while their neighbours visibly do win are likely to experience this as a loss. Moreover, because players tend to attach less value to money that they have won, players are inclined to take greater risks with previous winnings and gamble with them until the money runs out. This is due in part because of the tendency of players to regard money that they have won separately from the money that they brought with them (the 'house money effect').[76]

In addition, many people appear to have a tendency to draw unjustified causal links between successive, albeit independent events. This confusion between causation and correlation is expressed in two ways in gambling: the *hot-hand fallacy* and the *gambler's fallacy*.[77] In the hot-hand fallacy, players who have won several times tend to think that they will continue to win, thus subsequently raising their wagers accordingly.

72 Simon, H.A., 1972. Theories of bounded rationality. *Decision and organization*, *1*(1), p.161.
73 Thaler, R., 1985. Mental accounting and consumer choice. *Marketing science*, *4*(3), pp.199-214.
74 Campbell-Meiklejohn, D.K., Woolrich, M.W., Passingham, R.E. and Rogers, R.D., 2008. Knowing when to stop: the brain mechanisms of chasing losses. *Biological psychiatry*, *63*(3), pp.293-300.
75 Tversky, A. and Kahneman, D., 1991. Loss aversion in riskless choice: A reference-dependent model. *The quarterly journal of economics*, *106*(4), pp.1039-1061.
76 Thaler, R.H. and Johnson, E.J., 1990. Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management science*, *36*(6), pp.643-660.
77 C.J.R. Roney & L.M. Trick (2009) Sympathetic magic and perceptions of randomness: The hot hand versus the gambler's fallacy, *Thinking & Reasoning*, 15:2, 197-210.

Conversely, in the gambler's fallacy, players mistakenly think that if the ball on a roulette wheel has not fallen on the colour red for a long time, the odds that it will fall on red the next time are greater than the odds that it will fall on black. Both of these fallacies can lead to faulty decisions.

Finally, in another well-known phenomenon, people often over-estimate small opportunities and, conversely, they often under-estimate large opportunities.[78] This can provide at least a partial explanation for why millions of people in the Netherlands play a lottery every month and expect to win the jackpot at some point in the future, even though their odds of winning are lower than their odds of experiencing other events (e.g. being involved in a traffic accident).

### *4.4.2 Limited self-control and over-estimation*

In addition to bounded rationality, people often have limited self-control. Especially when short-term needs and preferences are in conflict with long-term needs and preferences, the short term often wins out. This explains why people often save too little for retirement, purchase gym memberships but not use them, or lose more money than they had planned in land-based or online casinos.

In addition to having limited self-control, many players tend to over-estimate themselves. The combination of games of chance with elements of dexterity (e.g. competing against others, making choices within a familiar context, and the player's involvement in the course of the game) can lead players to over-estimate their chances of winning more than would be justified based on an objective odds account. This is known as the *illusion of control*.[79] The self-control of players can also be weakened when games are designed in such a way that near-wins or near-misses occur more often than by pure chance.[80]

### *4.4.3 Minors, young adults and other vulnerable groups*

Adult consumers are already at risk due to the information problems and behavioural traps associated with games of chance, as outlined in this and previous sections. For genetic or other reasons, some people appear to be more sensitive than others. This applies categorically to certain vulnerable groups of consumers. For example, information problems are magnified for people with intellectual disabilities or who are less fluent in the national language. This increases the likelihood that such vulnerable consumers will not make informed choices.

The risks of behavioural traps are also more pronounced for minors and, to a lesser extent, for young adults. For these groups, impulse control is not yet sufficiently

78 Burns, Z., Chiu, A. and Wu, G., 2010. Overweighting of small probabilities. *Wiley Encyclopedia of Operations Research and Management Science.*

79 Langer, E. J., & Roth, J. (1975). Heads I win, tails it's chance: The illusion of control as a function of the sequence of outcomes in a purely chance task. *Journal of personality and social psychology, 32*(6), 951.

80 Reid, R.L., 1986. The psychology of the near miss. *Journal of gambling behavior, 2*(1), pp.32-39.

mature to take complex decisions that may have a major impact on their financial or mental health in the longer term.[81] Nevertheless, many young people are likely to experiment with risky behaviour.[82] For this reason, many countries have imposed total prohibitions on under-age gambling, in addition to limiting or even prohibiting gambling advertising aimed at young adults. This is addressed in greater detail in Section 5.

## 4.5 Gambling addiction

The most pressing behavioural trap associated with games of chance is gambling addiction. Following a brief discussion of risky and problematic gambling behaviour within the Dutch policy context (4.5.1) and its interpretation from the perspective of mental healthcare (4.5.2), Subsection 4.5.3 provides a brief overview of the broad literature on explanatory models for gambling addiction. For an overview article on addiction to gambling (in Dutch) we refer to Goudriaan (2012).[83]

### *4.5.1 Recreational, at-risk and problematic playing behaviour*

Within the Dutch policy context, three types of playing behaviour can be distinguished: recreational, at-risk and problematic. This characterisation follows the terminology of the South Oaks Gambling Screen (SOGS), a psychometric screening tool.[84] The SOGS comprises a list of 20 questions about playing behaviour in gambling, including several of the behavioural traps mentioned in the previous section (e.g. loss-chasing, limited self-control, concealing and lying about losing and borrowing money to gamble). Scores of 2 or fewer confirmatory responses indicate recreational playing behaviour, with scores of 3 or 4 confirmatory responses indicating at-risk playing behaviour and scores of 5 or more confirmatory responses indicating problematic playing behaviour.

One advantage of the SOGS is that players can take the questionnaire themselves, thereby assessing their own playing behaviour. The intention is that scores indicating at-risk and problematic playing behaviour will be interpreted by specialised therapists to determine whether a diagnosis of gambling disorder is in order (see Section 4.5.2).

The SOGS is intended for use in a clinical setting, and it is designed to miss as few people with a gambling disorder as possible (i.e. to have high sensitivity and few false negatives).[85] One disadvantage of the SOGS, however, is that it classifies a relatively high percentage of people who do not have a gambling disorder as

81 Smith, D.G., Xiao, L. and Bechara, A., 2012. Decision making in children and adolescents: Impaired Iowa Gambling Task performance in early adolescence. *Developmental psychology, 48*(4), p.1180.
82 Van Dorsselaer, S.V., Tuithof, M., Verdurmen, J., Spit, M., Van Laar, M. and Monshouwer, K., 2016. Jeugd en riskant gedrag 2015. *Kerngegevens uit het Peilstationonderzoek Scholieren. Utrecht: Trimbos Institute.*
83 Goudriaan, A., 2012. Gokverslaving. *Verslaving, 8*(4), pp.19-31.
84 Lesieur, H.R. and Blume, S.B., 1987. The South Oaks Gambling Screen (SOGS): A new instrument for the identification of pathological gamblers. *American journal of Psychiatry, 144*(9).
85 Stinchfield, R., 2002. Reliability, validity, and classification accuracy of the South Oaks Gambling Screen (SOGS). *Addictive behaviors, 27*(1), pp.1-19.

either at-risk or problematic player (low specificity). Although such classifications constitute false positives for the diagnosis of gambling disorder according to the DSM criteria, they are likely to identify people with problematic playing behaviour. In the literature, the percentage of false positives has been reported to range from 50% to as high as 81%. This suggests that half – or even four out of every five – of all problematic players identified by the SOGS cannot be diagnosed as having a gambling disorder according to the DSM criteria (see Section 4.5.2 below).[86]

The Research and Documentation Centre (WODC) of the Ministry of Justice and Security conducted a population survey in 2005, 2011 and 2016, with the objective of identifying the number of at-risk and problematic players in the Netherlands.[87, 88, 89] The most recent survey (2016) identified about 95,000 at-risk players and 79,000 problematic players. This corresponds to a prevalence of 0.69% and 0.57%, respectively, of the adult population. One international prevalence study reports a rate of between 0.1% and 4.5% for 'problem gambling' amongst adults and a rate of between 0.02% and 2.0% for 'pathological gambling' amongst adults.[90]

In addition to the high percentage of false positives returned by the SOGS, the reliability of estimating the prevalence of problematic playing behaviour is limited by the methodological shortcomings inherent to survey research (e.g. problems with the representativeness of the sample).[91, 92] The consequences of these problems include making it difficult to make reliable statements concerning the presence of an upward or downward trend. Despite the relatively low prevalence of serious gambling problems, and despite the aforementioned possibility of over-estimation and sample uncertainty, the absolute numbers indicate that the group of people suffering from serious gambling problems is too large to ignore.

### *4.5.2 Gambling disorder and mental healthcare*

What is popularly referred to as gambling *addiction* in policy circles is currently classified as gambling *disorder* within the context of mental healthcare (Mental Health Services).[93] In recent years, there has been a consensus in the medical world that gambling

86 Goodie, A.S., MacKillop, J., Miller, J.D., Fortune, E.E., Maples, J., Lance, C.E. & Campbell, W.K., 2013. Evaluating the South Oaks Gambling Screen with DSM-IV and DSM-5 criteria: Results from a diverse community sample of gamblers. *Assessment*, 20(5), pp.523-531.

87 De Bruin, D.E., Meijerman, C.J.M., Leenders, F.R.J. & Braam, R.V., 2006. Verslingerd aan meer dan een spel. Centrum voor Verslavingsonderzoek.

88 Bieleman, B., Biesma, S., Kruize, A., Zimmerman, C., Boendermaker, M., Nijkamp, R. & Bak, T., 2011. *Gokken in kaart.* Intraval.

89 A. Kruize, M. Boendermaker, M. Sijtstra, B. Bieleman (2016). Modernisering Kansspelbeleid. Nulmeting 2016. Intraval/WODC, Groningen/The Hague.

90 Sassen, M., Kraus, L. & Bühringer, G. (2011). Differences in pathological gambling prevalence estimates: Facts or artefacts? *International Journal of Methods in Psychiatric Research*, 20(4), e83-e99.

91 Culleton, R.P., 1989. The prevalence rates of pathological gambling: A look at methods. *Journal of Gambling Behavior*, 5(1), pp.22-41.

92 Dickerson, M.G., 1993. A preliminary exploration of a two-stage methodology in the assessment of the extent and degree of gambling-related problems in the Australian population. *Gambling behavior and problem gambling*, pp.347-363.

93 In the past, references were made to excessive, compulsive, pathological or problematic gambling.

disorders share many similarities with drug addiction in terms of fields of epidemiology, neurobiology, heredity and treatment. As a result, the *Diagnostic and Statistical Manual of Mental Disorders 5th Edition* (DSM-5), the standard reference work of the American Psychiatric Association (APA), has included gambling disorders within the broad category of addiction and addiction-related disorders.[94] The same designation has been made in the World Health Organization's *International Statistical Classification of Diseases and Related Health Problems, 11th Edition* (ICD-11).[95]

**The most recent Key Figures on Addiction Care have yet to be published**[96]
Since 1994, the National Alcohol and Drug Information System (LADIS), managed by the *Stichting Informatievoorziening Zorg* (IVZ; a healthcare information foundation) has been the most important source of information on the demand for addiction care in the Netherlands, thanks to good cooperation with relevant institutions.

Following a request to take action against the processing and supply of certain medical data, the Dutch Data Protection Authority (DPA) issued a new interpretation for the processing of personal data. The processing and supply of data included in LADIS was also subject to further investigation. The results of this investigation indicate that the data included in LADIS should be regarded as personal data according to the new interpretation of the DPA.

As a result, the LADIS currently does not meet the mandatory requirements of the GDPR (e.g. a legal basis). In September 2020, the Ministry of Health, Welfare and Sport submitted an amendment to the Healthcare Quality, Complaints and Disputes Act (abbreviated in Dutch to WKKGZ) to the Senate or Upper House (*Eerste Kamer*) of the Dutch Parliament (the States General) that includes articles on the LADIS. This Act will serve as the necessary legal basis for supplying LADIS. The amendment will thus allow healthcare providers to forward data. The law is expected to enter into force on 1 January 2021. From that time on, healthcare providers will be allowed to provide data, with retroactive effect. Until the law takes effect, it will not be possible to publish LADIS data from after 2015 concerning the number of people treated for gambling problems in the Netherlands.

In 2015, about 2,200 people sought help from mental healthcare providers for gambling disorders, and another 1,000 people included gambling disorders as secondary requests for help. This is a considerable decrease from the more than 7,000 people treated for gambling problems by mental healthcare providers in 1994. A considerable discrepancy nevertheless exists between the estimated number of

94 American Psychiatric Association, 2013. *Diagnostic and statistical manual of mental disorders* (DSM-5). American Psychiatric Pub., pp.405-407.
95 International Statistical Classification of Diseases and Related Health Problems (11th ed,; ICD-11; World Health Organization, 2020).
96 Abbreviated version of https://www.ladis.eu/nl/over-ladis/kerncijfers

problematic players and the number of people treated for gambling problems by mental healthcare providers. Even with a false-positive rate of 81% amongst the estimated 79,000 problematic players, at least 15,000 people with an actual gambling disorder remain, and only 3,200 of these people were treated for gambling disorders by mental healthcare providers in 2015. In the absence of further figures, no conclusions can be drawn concerning the extent to which this discrepancy can be attributed to under-treatment or to recovery by means of unregistered assistance (including self-help).

In 2015, the majority (87%) of people seeking assistance for gambling problems as a primary complaint were male, and 36% were seeking help for these problems for the first time. As such, help for gambling problems accounted for only a small share (3%) of all of the addiction care provided in the Netherlands. In comparison, addictions to alcohol, cannabis, opiates and cocaine together accounted for 87% of all addiction care.[97]

As described by Goudriaan (2012), gambling disorders in the Netherlands are treated according to methods that are also used in the treatment of alcohol and drug addiction. Cognitive behavioural therapy and motivational discussion are widely used, often in combination with referral to a debt-counselling agency. In general, psychological treatments are more effective than treatments involving medication, although certain drugs have proven effective when a family history of alcohol problems is involved.[98]

### *4.5.3 Explanatory models for gambling addiction*

Gambling addiction is a behavioural disorder in which biological, psychological and social factors interact. Goudriaan (2012) summarises Sharpe's bio-psychosocial model (2002) as follows.[99] Gambling behaviour arises from the availability and accessibility of games of chance. This creates the possibility of regular gambling. Early winnings in gambling can lead to more regular gambling. A genetic vulnerability to developing addictions can then trigger high sensitivity to rewards during gambling. Cravings develop in response to changes in the reward process in the brain. As a result, everything related to gambling attracts a substantial amount of attention (*attentional bias*), thereby providing a strong motivation to gamble.

As outlined in an overview by Redish *et al.* (2008), addiction is the result of vulnerabilities existing in the decision processes in the human brain.[100] Vulnerabilities

97 IVZ (2016). *Kerncijfers Verslavingszorg 2015. Landelijk Alcohol en Drugs Informatie Systeem.* Houten: Stichting Informatie Voorziening Zorg (IVZ).

98 Grant, J.E., Kim, S.W., Hollander, E. and Potenza, M.N., 2008. Predicting response to opiate antagonists and placebo in the treatment of pathological gambling. *Psychopharmacology*, 200(4), p.521.

99 Sharpe, L., 2002. A reformulated cognitive-behavioral model of problem gambling: A biopsychosocial perspective. *Clinical psychology review*, 22(1), pp.1-25.

100 Redish, A.D., Jensen, S. and Johnson, A., 2008. Addiction as vulnerabilities in the decision process. *Behavioral and Brain Sciences*, 31(4), pp.461-487.

in the recognition of situations are of particular concern with regard to gambling disorders. People are likely to make one of two types of mistakes in this respect. They might either perceive equivalent situations as different (*over-categorisation*) or, conversely, perceive different situations as equivalent (*over-generalisation*). In the first case, players convince themselves that objectively irrelevant circumstances were the cause of their losses, and the 'illusion of control' described in Section 4.4.2 leads them to believe that they can avoid such losses in the future. In the second case, players do not learn from sustained losses, do not sufficiently adjust their assessment of the odds and persist in their playing behaviour (loss-chasing, as previously described).

Against the background of these bio-psychosocial explanations for the origin of gambling disorders, economists are charting observed choice behaviour as well as possible. One observation is that addiction involves a combination of both rational and irrational behaviour.[101] The irrational characteristics (e.g. persistence in behaviour, which players sometimes regret during consumption) have already been addressed. At the same time, however, consumers of addictive products (e.g. gambling, tobacco use) do appear to react predictably and in their own interest (e.g. in response to price incentives). For example, Becker *et al.* (1991) identify impending increases in tobacco duties as a good predictor of a decreased demand for tobacco.[102]

## 4.6 Externalities

Externalities are also a source of market failures in gambling. Recall that externalities occur when consumers or producers do not consider the full social benefits or costs of transactions in their decisions. In the case of negative externalities, some of the costs are passed on to third parties who are not involved in the transaction. This can lead to excessive levels of production and consumption. In contrast, with positive externalities, third parties profit at no charge from the benefits emerging from the transactions of others. This can result in insufficient levels of production and consumption.

The negative and positive externalities of gambling are addressed in the following three sub-sections. The discussion is limited to externalities that the *General Guideline for Social Cost-Benefit Analysis* counts as direct effects – in this case, effects that are directly related to the gambling market (e.g. the consequences of gambling disorders).[103] Indirect effects (e.g. Dutch medals won at the Olympic Games, as a result of contributions from lotteries and sports betting to sports organisations )

101 Becker, G.S. and Murphy, K.M., 1988. A theory of rational addiction. *Journal of political Economy*, 96(4), pp.675-700.

102 Becker, G.S., Grossman, M. and Murphy, K.M., 1994. An empirical analysis of cigarette addiction. *The American Economic Review*, 84(3), p.396.

103 Two-way causality is possible in this situation: a gambling disorder can lead to poor conditions, but gambling can also be a way to escape from poor conditions.

are not taken into account.[104] In any future SCBA for games of chance, these indirect effects can be identified, measured and weighed in order to arrive at an integral assessment.

### *4.6.1 Gambling addiction*

If a transaction has negative externalities, it generates costs for parties other than those involved in the transaction. Well-known examples include noise pollution and emissions of harmful substances. Games of chance can also give rise to negative externalities, which can lead the demand for games of chance to be higher than socially optimal. First, games of chance can be addictive. The negative effects of gambling addiction for players are discussed at length in Section 4.5. Nevertheless, an addiction from which only a player suffers (regardless of how bad it may be for that player) is not an external effect. In theory, large losses to the casino or to other players are also not external effects, but welfare-neutral transfers (see Section 3.4.3). For an external effect to exist, it must also affect third parties.

Addiction-prevention policies are aimed primarily at protecting consumers from themselves. Any counteracting of external effects is a secondary objective. It is nevertheless possible to estimate the welfare losses that will be experienced due to the psychosocial burden of disease. For example, the perceived quality of life for a person with a gambling disorder is about 7.6% lower than it is for a completely healthy individual.[105] If a completely healthy year of life is valued at €80,000, the indirect costs of a gambling disorder can be estimated at approximately €6,000 per year.[106] These costs are not external effects.

External effects do occur when a problematic player or someone with an actual gambling disorder incurs social costs that are directly related to disruption of family life, absenteeism or loss of employment, addiction care or debt restructuring. As described in Section 4.5, the gambling disorders accounted for 3% of all addiction care in 2015, alcohol and drug addiction accounting for 87%. According to RIVM estimates, the mental-healthcare costs for alcohol and drug addiction amounted to almost €800 million in 2015.[107] Assuming equal treatment costs for gambling disorders and drug addictions, the mental-healthcare costs for gambling disorders amounted to about €27 million in 2015.

Little is known about the extent of the costs of absenteeism and debt restructuring as a result of gambling disorders. Finally, it is plausible that not only those with gambling disorders, but also some at-risk and problematic players pass social costs along to their families, friends and/or employers.

104 Romijn, G., Renes, G. (2013). *Algemene leidraad voor maatschappelijke kosten-batenanalyse*. The Hague: CBP/PBL.

105 Kohler, D., 2014. A monetary valuation of the quality of life loss associated with pathological gambling: an application using a health utility index. *Journal of Gambling Issues*, (29), pp.1-23.

106 Zorginstituut Nederland, 2020. Ziektelast in de Praktijk: De theorie en praktijk van het berekenen van ziektelast bij pakketbeoordelingen.

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The negative externalities of gambling disorders are thus generated on the demand side, and they primarily affect the player's environment and care. Nevertheless, intervention can also focus on the supply side, as when operators are assigned a role in preventing, managing and identifying problems and contributing to the costs of addiction care. This internalises the negative effects, thereby offering the proper incentives to operators (see Section 5.4).

Preventive measures include excluding minors, addicts and otherwise vulnerable players from participation (see Section 5.5). Such measures often run counter to the short-term commercial interests of operators, as problematic players are lucrative for operators. For example, one Canadian study reports that problematic players account for only 4.1% of all players, but that they realise as much as 23% of the turnover, generating more than five times the average turnover per player.[108] The long-term reputation of good prevention can nevertheless outweigh such short-term gains.

### *4.6.2 Crime and illegality*

A second category of negative externalities concerns gambling-related crime. At this point, we provide a brief discussion of three phenomena: money laundering, players entering (or being drawn deeper into) the criminal circuit and undermining.

Money laundering through games of chance can take place in a variety of ways: through criminal-asset investments made by gambling operators, by falsifying the legal origins of the criminal assets of players or gambling operators or through the gambling of undeclared funds by players. The supervision provided by the *Kansspelautoriteit* focusses on the integrity of operators and their capital providers, as well as on the unusual transactions of their clients, who must identify and investigate casinos (and, in the future, online operators). As with addiction prevention, compliance with regulations with regard to money laundering can be at odds with the commercial interests of operators, once again balancing short-term gain against long-term reputation.

High gambling expenses or gambling debts can draw players into (or deepen their involvement in) crime. One example involves players who seek to pay for their own gambling behaviour through theft or embezzlement. Performing criminal acts for money lenders is another well-known phenomenon, to which players in the illegal gambling circuit are particularly vulnerable.

*Subversion* involves unwanted interaction between legitimate business and organised (and other forms of) crime. This hampers supervision and control (e.g. by threatening municipal or other enforcers).

108 Williams, R.J. and Wood, R.T., 2007. The proportion of Ontario gambling revenue derived from problem gamblers. *Canadian Public Policy*, 33(3), pp.367-387.

In contrast to money laundering, embezzlement, subversion and other forms of crime discussed above, illegal gambling is not in itself a negative external effect of gambling. Instead, it constitutes evasion of tax and other regulations. In 2009, the volume of illegal gambling was estimated to be between €86 million and €242 million.[109] The illegal sub-market for betting kiosks was estimated at around €37 million in 2015.[110] In 2015, the *Kansspelautoriteit* estimated the size of the illegal online market at around €300 million.[111] At the current tax rate of 30.1%, the tax evaded thus amounts to around €90 million per year.

### *4.6.3 Charities and lotteries*

Games of chance can also have a positive impact on other sectors and activities within a society. The most appealing example of this is the relationship that has historically existed between lotteries and the funding of charities. In contrast to the effects discussed in the preceding sub-sections, this externality is not related to any market failure within the gaming market, but to the positive contribution to philanthropy that is made by fundraising through lotteries.

The legislation and regulations for the Dutch lottery market currently distinguish three segments, with the state lottery, the Lotto and the National Postcode Lottery being the largest products. The national lottery disburses 15% of the total turnover to the national treasury; the Lotto contributes 18% of the total turnover to sports activities and other good causes, and the National Postcode Lottery contributes 40% of the total turnover to a variety of charities.[112] These contributions are directed towards sports activities, social welfare, healthcare, development work and culture. Lotteries are also linked to charities almost everywhere in the world.

The broad social importance of this topic is also reflected in the € 680 million that Dutch lotteries contributed to the state and charities in 2018.[113] This does not include the gambling tax. On balance, this amounts to almost 12% of all private fundraising in the Netherlands (valued at €5.7 billion).[114] Lottery revenues can amount to as much as 50% of the fundraising efforts of individual charities.[115] The charitable contributions of the lottery market are addressed in greater detail in Section 6.2.

### *4.6.4 Charities and sports betting*

Land-based sports betting also generates contributions to charities, albeit at a much lower percentage than the various lotteries. The sports betting conducted under the

109 Homburg, G.H. and Oranje, E., 2009. *Aard en omvang van illegale kansspelen in Nederland*. Regioplan Beleidsonderzoek.
110 Spapens, A. and Bruinsma, M.Y., 2015. Fenomeenonderzoek gokzuilen.
111 Kansspelautoriteit, 2015, Marktscan online kansspelen 2015.
112 https://kansspelautoriteit.nl/soorten-kansspelen/loterijen/meerjarige-loterijen/
113 Kansspelautoriteit, 2020, Marktscan landgebonden kansspelen 2018.
114 Bekkers, R.H.F.P., Gouwenberg, B.M. and Schuyt, T.N.M., 2020. Geven in Nederland 2020.
115 https://www.postcodeloterij.nl/goede-doelen/uw-organisatie-steunen/toekenningscriteria-vaste-beneficienten

name 'Toto' by Lotto B.V. – the commercial subsidiary of the state participation in the *De Nederlandse Loterij* – pays the net game result (ticket sales revenue after deduction of prizes and costs) to NOC*NSF and the ALN Foundation, based on distribution keys of 72.46% and 27.54%, respectively. There is no minimum contribution percentage. In practice, the remittance is limited to less than 10% of the ticket sales revenue.

Land-based betting on horse races is operated by ZEbetting & Gaming Nederland B.V. under the name ZEturf. The monopoly licence includes the obligation to pay at least 2.5% of the total turnover to the Dutch foundation for horse racing and trotting (Stichting Nederlandse Draf- en Rensport, or NDR). In practice, the remittance is more than 5%, more than twice the legally required remittance. The NDR distinguishes itself from the beneficiaries of donations from lotteries and sports betting, however, by the fact that the donations received benefit the breeding of racing and trotting horses, as well as the prize money for the equestrian events. As a result, horse breeding and the income from betting on horse racing and trotting events are interdependent on each other.

Horse racing and trotting requires long-term investments for which there must be some certainty as to revenue. However, the turnover from horse racing and trotting betting has been stagnating for a decade, and does not show the explosive growth that other sports betting has experienced in recent years. In paragraph 6.3, we will look more closely at the market for sports betting and betting on horse racing and trotting events.

### *4.6.5 Other aspects of philanthropy and gambling*

Sections 4.6.3 and 4.6.4 illustrate the social importance of charitable donations by operators of lotteries and betting. These are not the only ways in which the government can facilitate philanthropy. In the policy vision on philanthropy that was presented to the House of Representatives in 2019, the Minister for Legal Protection also indicated that the government would encourage behaviour, promote transparency and reliability within the sector, and cultivate cooperation between the government and philanthropy.[116]

Lotteries are a *suitable* means of social fundraising.[117] One question raised by the Netherlands Bureau for Economic Policy Analysis (CPB) and other entities concerns the relationship between *compulsory* remittances and other tools, like support for charities from general resources or through gift-tax deductions.[118] A social cost-benefit analysis (SCBA) on the welfare effects of gambling remittances to charities

116 *Parliamentary Papers II*, 2019/2020, 32740, 21.
117 Morgan, J., 2000. Financing public goods by means of lotteries. *The Review of Economic Studies*, *67*(4), pp.761-784.
118 Centraal Planbureau, *Kansrijk belastingbeleid*. 2020, pagina 134.

in comparison with these and other government tools would enable an integrated, evidence-based assessment. For the time being, however, such a broad welfare-economic analysis is lacking.[119]

Despite the lack of an economic assessment of the financial implications of a remittance obligation, the aspects of EU law outlined in Section 3.3.5 also play a role in ensuring that charitable donations form a consistent part of the structure of the various gambling markets. Further policy-making on philanthropy in relation to games of chance would benefit from additional elaboration of the economic and legal considerations outlined above, in order to substantiate charitable donations.

In 2018, the WRR called for greater societal control over the contributions of lotteries.[120] With a view to future policy-making, the policy vision on philanthropy formulated by the Minister for Legal Protection emphasises the need to pay attention to the WRR's recommendation to democratise the control over remittances. As explained in Section 2.6.2, the *Kansspelautoriteit* has the statutory duty to monitor the legitimacy of existing remittance obligations, but not the distribution of remittances across the various charities. The previously discussed market failures in games of chance do not justify assigning the *Kansspelautoriteit* a role in the distribution of remittances.

## 4.7 Imperfect competition and undesirable effects of competition

In a competitive market, individual companies do not hold a dominant position, and they cannot behave independently of their competitors, customers or suppliers. As a result, companies have an incentive to distinguish themselves in terms of price or quality of supply, thus creating wealth.

If competition does not emerge, or if it does not lead to the desired welfare, a competition problem may arise. Examples include cartels, mergers and acquisitions that create or strengthen economic power positions, as well as abuses of dominant positions (e.g. manufacturers imposing fixed retail prices on shops under penalty of refusal to supply). The Authority for Consumers and Markets (ACM) is responsible for the regulation of competition.

The markets for lotteries, betting and casinos are highly concentrated, due primarily to the legal monopolies (Section 2.5) and the recent merger between the *Staatsloterij* (*SENS*) and *De Lotto* to form *De Nederlandse Loterij* (Section 2.7). In addition, dominant positions may also result from *natural monopolies* and *network effects*. This is discussed in Sections 4.7.1 and 4.7.2.

119 Some charities do not accept direct public contributions because of their independence. This could be taken into account in the SCBA.

120 Wetenschappelijke Raad voor het Regeringsbeleid (2018). *Filantropie op de grens van overheid en markt*. Verkenning 40.

After discussing these potentially anti-competitive effects, we discuss two potential undesirable effects of competition. The first has to do with the effect of competition on the nature and extent of advertising due to the information problems and behavioural traps of gaming consumers (Section 4.7.3). The second concerns the manner in which a company's pursuit of profit can clash with the need to carry out adequate addiction prevention and control of the origin of the money employed, which, in the worst-case scenario, can lead to a *race-to-the-bottom* and the associated negative external effects (Section 4.7.4).

### *4.7.1 Production technology*

Many goods and services entail production technologies whose unit costs decrease with the volume of production (*economies of scale*) or through the simultaneous production of several products (economies of scope). Lower costs may also result from higher utilisation rates of infrastructure or proximity to many customers in densely populated areas (density benefits). Finally, early experiments and innovations may decrease future costs (*learning effects*). One feature that these technological phenomena have in common is that fixed costs can be spread across a large volume.

Examples within the context of games of chance include the drawing and advertising of lotteries, the determination of odds in sports betting, the accommodations and gaming machines in casinos or gaming halls, the construction of computer infrastructure by online operators and betting terminals. All these costs are independent of the number of customers.

High fixed costs can mean that the optimum scale of production exceeds the entire potential market, a situation known as a *natural monopoly*. In a weakened form, the optimal scale allows not one, but a small number of suppliers to operate profitably in the market. Competition between incumbents keeps prices so low that even efficient entrants cannot recoup their fixed costs, and they are thereby excluded from the market.[121] Such markets are often difficult to contest, and the limited number of suppliers can then lead to competition problems.

Unlike in network sectors (e.g. telecommunications, energy, post and transport), the fixed costs and associated economies of scale and scope in gambling do not encourage any natural monopolies at the national or regional level. This does not mean, however, that an unlimited number of operators can operate profitably. For example, it is estimated that there is still room in the Netherlands for 10 casinos comparable to the current 14 branches of Holland Casino.[122] In 2015, the ACM noted

121 Milgrom, P. and Roberts, J., 1982. Limit pricing and entry under incomplete information: An equilibrium analysis. *Econometrica: Journal of the Econometric Society*, pp.443-459.

122 Tieben, B., Baarsma, B., Poort, J., de Goeij, M., Smits, T., Rosenboom, N. and Hof, B., 2012. Speelruimte: naar een nieuwe marktordening van de land-based kansspelmarkt. SEO-report 2012-55.

that the modernisation of the market for casinos that was envisaged at that time could lead to an economically dominant position for Holland Casino.[123]

### 4.7.2 Network effects

In gaming, economies of scale and scope occur predominantly on the demand side of the market. These effects are known as *network effects* or *network externalities*.[124, 125] Network effects occur when a consumer appreciates a product more as the number of users of that product increases, or when the use of several products alongside each other generates more value than the individual products put together.[126] Like economies of scale and scope on the supply side, network effects on the demand side can lead to natural monopolies. A critical mass of users is required to move beyond the *tipping point*, at which a new product becomes profitable. When network effects play a role, new companies must often incur extensive start-up losses before it is clear whether their new products will be successful. These barriers to entry can generate dominant positions or even natural monopolies. The contestability of such markets by potential entrants is of interest to competition authorities throughout the world.

In some games of chance, including lotteries, poker and sports betting through totalisers and betting exchanges, participants play against each other. The size of the player base determines the attractiveness of the game in relation to other operators, thereby channelling demand to ensure a responsible, reliable and controllable supply. The network effects that occur in lotteries and poker are discussed below.[127]

#### *Lotteries*

In a lottery, the size of the grand prize is an important reason for participation.[128] If the grand prize increases with the total investment, there is a network effect. This is because, if consumers think that a large number of people will participate, they will expect the grand prize to be high, thus making participation even more attractive. This converse applies as well, thereby giving rise to a chicken-and-egg problem: how can one develop a big lottery if one must start small?

Lotteries with periodic (weekly or monthly) draws often have subscriptions. Because subscribers play automatically, the next draw is also popular for consumers who buy only single lottery tickets. There are several ways for lotteries to build up a subscriber base. For example, they can use expensive advertising to send a credible signal to consumers in advance that the lottery will be large and attractive. Another method is

123 Autoriteit Consument en Markt. Advies over uitwerking privatisering Holland Casino.
124 Katz, M.L. and Shapiro, C., 1985. Network externalities, competition, and compatibility. *The American economic review*, 75(3), pp.424-440.
125 Positive spill-overs from networks are generally limited within the same market. In this document, we therefore refer to network effects instead of network externalities.
126 Examples include Windows and Office or Facebook, Twitter and Instagram.
127 Horse-racing wagers placed in the Netherlands are pooled with those of French participants. The network effect is similar to that of pooling at within the context of online poker.
128 Clotfelter, C.T. and Cook, P.J., 1991. Selling hope: State lotteries in America. Harvard University Press.

to guarantee in advance the size of the grand prize and the likelihood that it will be won. In both cases, the cost precedes the benefit, and the operator has no certainty concerning whether it will be able to recoup the investment in advertising and the initial prize pool.

Throughout the world, periodic lotteries operate rolling jackpots. The amount of the jackpot starts at a fixed minimum, but there is no guarantee that the jackpot will actually fall. If it does not fall, the amount accrued up to that point is increased by part of the most recent ticket sales revenue. This creates a snowball effect.

For lotteries, the jackpot is proportional to the size of the population of the jurisdiction (usually the country) in which the operator is allowed to operate. Competition between lotteries in neighbouring countries can lead to partnerships that maximise the potential jackpot, a concept known as jackpot pooling.

**Jackpot pooling in lotteries**

In the United States, *state lotteries* have existed since 1963. Since 1985, interstate lottery consortia have emerged, with small state lotteries (e.g. those in Maine, New Hampshire and Vermont) pooling the joint contributions of their participants to cope with the lotteries in much larger states (e.g. California and New York).[129] Two lottery consortia are currently operating in the United States: Mega Millions and Powerball. The odds of winning the jackpot with a lottery ticket are 1 in 258 million (Mega Millions) and 1 in 292 million (Powerball). Even with a population of 250 million adults, it is possible that the jackpot will not fall several times in a row, such that it can reach values of hundreds of millions of dollars.[130]

Since 2004, lottery consortia have been operating in the European Union, pooling the ticket sales of participants in lotteries from several Member States. The two largest consortia are EuroMillions (8 countries, with more than 180 million adults) and EuroJackpot (18 countries, with more than 260 million adults). The odds of winning the jackpot are 1 in 140 million for a prize of up to €190 million (EuroMillions) and 1 in 95 million for a prize of up to €90 million (EuroJackpot). In the Netherlands, *De Nederlandse Loterij* provides access to the EuroJackpot.

The pooling of ticket sales is a way to make the lottery supply more attractive, to give new entrants a chance and to facilitate the channelling of participants to legal supply. Conversely, a ban on jackpot pooling is a barrier to entry for new operators.

One prerequisite for pooling is that consumers must be well informed about the likelihood of winning a pooled jackpot. There must also be sufficient confidence in the financial management of the prize pool and the fairness of the draw. Banking

129 Clotfelter, C.T. and Cook, P.J., 1990. On the economics of state lotteries. *Journal of Economic Perspectives*, 4(4), pp.105-119.

130 In 2016, a Powerball jackpot amounting to $1.5 billion was shared by three winners. In 2017, an undivided Powerball jackpot of more than $750 million was hit.

and notarial guarantees within the relevant legal systems must be sufficiently comparable. To date, no incidents involving misinformation or lack of confidence of this kind have occurred in the US and European lottery consortia mentioned above.

*Poker*

Poker is one of the few casino games in which players compete against each other rather than against the house. The numerous poker games in existence differ according to such characteristics as game type (e.g. Texas Hold 'em or Omaha Hold 'em), match type (cash games or tournament), the amount of mandatory wagers (buy-in, ante or blinds) and the amount of voluntary wagers (limit, pot limit or no limit).

Although poker is regarded as a game of chance throughout the world, it also entails an element of skill.[131] For this reason, it is attractive for players to be able to play against opponents who are at (or, preferably, just below) their own level. If the pool of players is small, it can be experienced as boring, in addition to carrying a financial risk, as the members of the pool soon become familiar with each other's weaknesses. Poker thus has a network effect as well: if players see or think that many others are already participating in a poker event, it will also be more attractive to participate.

**Liquidity pooling at poker**

According to a study of the network effects of internet poker, players are willing to pay an additional amount of around $0.81 per hour to have 100 additional players within a network of 100 currently logged-in players. For a network of 2,500 active players, the willingness to pay for an additional 100 players is only $0.18 per hour, and from 3,000 players onwards, players are not willing to pay for additional opponents. In contrast to lotteries, therefore, the network effect in online poker is limited, suggesting that online poker markets are not winner-take-all markets, and it is possible for multiple operators to co-exist.[132] In practice, however, there are indications that the online poker market is highly concentrated, as considerable scale is required in order to achieve an attractive number of poker players online at any given time of day.[133]

Since 2017, the French, Italian, Spanish and Portuguese online gambling regulators have allowed for an international pool of players (i.e. a *joint liquidity pool*) for all residents wishing to play online poker. This has created a potential pool of 154 million adults, of whom an estimated 2.75 million actually play poker online. In the United States, since 2018, there has been a much smaller liquidity pool for residents of the states of New Jersey, Nevada and Delaware, the only three states in which online poker is allowed. This liquidity pool has a potential playing population of more than 9 million adults.

131 Van Loon, R.J.P., van den Assem, M.J. and van Dolder, D., 2015. Beyond chance? The persistence of performance in online poker. *PloS one*, 10(3), p.e0115479.
132 Wimmer, B.S., Philander, K.S. and Redona, M., 2018. The Effects Network Externalities on Platform Value and Management: Evidence from Internet Poker Users. SSRN 3233040.
133 Fiedler, I. and Wilcke, A.C., 2011. The market for online poker. SSRN 1747646.

For land-based casino games, the size of the player pool is limited by the willingness to travel and the population density of the region in which casinos are located. For online poker, the player pool is theoretically limited by the size of the population of the entire jurisdiction (usually a country) within which the provider is allowed to operate. As with lotteries, pooling at poker is an effective way of enhancing the attractiveness of supply, providing opportunities to new entrants and facilitating channelling towards legal supply. To this end, various jurisdictions have merged their player databases in a process known as *liquidity pooling*.

Extrapolating from gaming behaviour in France, the adult population of the Netherlands (14 million) should include about 254,000 online poker players.[134] Given the unlikelihood that all of these players would be active at the same time in the same type of game with the same wager, a pooled network of international opponents would be likely to make the legal supply much more attractive to the Dutch player. For this reason, the Explanatory Memorandum to the Remote Gambling Act also offers players registered with Dutch licence holders the opportunity to compete against players from other countries. This creates an international database of players, thereby stimulating channelling. In addition, the necessary requirements for business operations (e.g. the registration of financial transactions) are specified in subordinate legislation. Liquidity pooling is also allowed in other countries with relatively small numbers of players (e.g. Denmark and Belgium).

### *4.7.3 Competition and advertising*

Virtually every company advertises its products in one form or another. In 2017, the Dutch economy was valued at around €693 billion, and the total net advertising expenditures in that year exceeded €3.5 billion.[135] The advertising intensity for an average company was thus around 0.5%. Given that this average also includes business-to-business sectors, this percentage is quite likely to be higher for companies selling their products and services to consumers.

In 2017, licensed operators spent between 5% (casinos) and 10% (lotteries) on recruitment and advertising, out of a gross gaming result of €2.5 billion.[136] These segments of the gaming market could thus be described as advertising-intensive. They invest more than 10 to 20 times more in advertising than the average industry, and are more or less comparable to producers of detergents, soap or toothpaste.[137]

No official figures are available for online operators in the Netherlands. Estimates for the advertising intensity of foreign operators range from 15% to 30% in saturated

134 In France, the online poker market was valued at around €230 million in 2017, with an average annual amount of €236 per player. This corresponds to around 975 thousand French online poker players, out of an adult population of 54.1 million.
135 Deloitte, IAB Report on 2017 Digital Advertising Spend, April 2018.
136 *Marktscan landgebonden kansspelen 2017*, Kansspelautoriteit (2018).
137 Cabral, L.M., 2006. *Industrial Organization*. Jaico. Table 13.1.

markets, and between 35% to 60% in growth markets.[138] When the online gambling market is opened, therefore, its advertising intensity is likely to be 6–15 times greater than that of the current land-based gambling market.

These stylised figures are consistent with the extensive economic literature on the interaction between competition (e.g. as measured by market concentration) and advertising.[139] The advertising intensity of a profit-maximising company is determined by the ratio of the advertising sensitivity of consumers to their price sensitivity.[140] As discussed briefly below, advertising and competition have mutual effects on each other.

The effect of competition on the overall volume of advertising is ambiguous, due to the existence of two opposite effects. While advertising increases market share, competition suppresses the profitably of additional market share. For growth markets (e.g. the impending online gambling market), advertising intensity is expected to increase significantly upon the opening of the market, but to level off once the market becomes saturated and competition emerges *within* the market.

Conversely, advertising has an ambiguous impact on the intensity of competition. 'Informative advertising' about objective product characteristics (e.g. price) intensifies competition by critical price-comparing consumers. In contrast, 'persuasive advertising', which emphasises more subjective and emotional perceptions, mitigates competition by highlighting differences between suppliers.

In addition to the scope of advertising, persistent information problems and behavioural traps for consumers (see Sections 4.3 and 4.4) give cause for concern about the nature, intrusiveness and quantity of advertising with regard to games of chance. This has led to the inclusion of various obligations in legislation and regulations addressing the ways in which consumers may be tempted to gamble.[141] In addition to the goal of preventing deception, such regulations seek to ensure that advertising for games of chance will not eventually lead to an increase in gambling addiction (even though there is no evidence of such effects in the literature).[142, 143]

Another issue has to do with the recipients of advertising, where consumers can be classified as either players or non-players. Advertising aims to entice players to play more, while enticing non-players to start (or resume) playing. When non-players

138 Station10 BV, Online kansspelen en Televisie; Inventarisatie van instrumenten en impact, March 2015.
139 Bagwell, K., 2007. The economic analysis of advertising. *Handbook of industrial organization*, 3, pp.1701-1844.
140 Dorfman, R. and Steiner, P.O., 1954. Optimal advertising and optimal quality. *The American Economic Review*, 44(5), pp.826-836.
141 Leidraad reclame voor kansspelen. Kansspelautoriteit (2018).
142 IVO, Literatuuronderzoek naar de relatie tussen kansspelmarketing en gokken, i.o.v. de Kansspelautoriteit (2015).e
143 Regulus Partners, *Gambling and advertising: an international study of regulatory intervention*, 2019.

consist of vulnerable groups (e.g. minors, people with a pre-disposition to addiction), the public interests of both consumer protection and the prevention of gambling addiction are at stake.[144]

### *4.7.4 Competition and negative externalities*

As explained in Section 4.6, games of chance can have negative external effects in the form of costs that are passed on due to gambling addiction and crime (e.g. money laundering). For this reason, operators should make their own efforts to prevent addiction and report unusual financial transactions in order to prevent money laundering and terrorist financing. Addiction is particularly prevalent in high-frequency games of chance. Money laundering is particularly prevalent in games of chance involving large amounts of money of unknown origin (cash and, possibly, cryptocurrencies) and in which both the odds of winning and the pay-out rate are high, but prizes are not excessively skewed (as in the case of lotteries). The prevention of addiction and/or the controlling of money laundering are important in such games of chance.

Despite the importance of preventing addiction and monitoring transactions, compliance with such measures comes at a cost within a market where companies strive to maximise profits, and the temptation to economise on these costs can be high. The situation is exacerbated by the fact that the customers who spend the most are also at the highest risk of both gambling addiction and making unusual financial transactions. Any measures that operators take to control gambling behaviour and the origin of gambling money may thus reduce their own revenues. At the same time, however, a long-term reputation of good conduct can outweigh the short-term gains of minimal compliance (or non-compliance).

In principle, a private, profit-seeking monopoly inherently entails an incentive not to be closely involved in the investigation of consumers. Within a competitive market, however, cost savings are likely to have a much greater effect on operating results (i.e. through increases in profits or decreases in losses).[145] As a result, restrictions on consumer investigation are likely to be especially pronounced in competitive markets, particularly for companies in poor financial circumstances (e.g. such as special administration, suspension of payments or bankruptcy).

The negative externalities resulting from competitive incentives may be exacerbated by 'principal-agent problems'.[146] Such problems can occur when a hierarchically structured organisation, with shareholders at the top as the owner and 'principal' (i.e. the recipients of the net profit), delegate their business operations to 'agents' (e.g. managers or other key individuals).

144 Zuiderveen Borgesius, F., Zimin, A., Power, L. & Poort, J. (2020). Rien ne va plus: reclame en online kansspelen. *SEW, Tijdschrift voor Europees en economisch recht*, 2020/3 (March), p. 116-126.
145 Boone, J., 2008. A new way to measure competition. *The Economic Journal*, 118(531), pp.1245-1261.
146 Stiglitz, J.E., 1989. Principal and agent. In *Allocation, information and markets* (pp. 241-253). Palgrave Macmillan, London.

When the tasks of executive agents vary widely and are rewarded differently, and when the efforts of agents are only partially observable, there is a risk that the agents will exert sub-optimal effort and/or focus on the most visible and best-rewarded tasks. This does not necessarily achieve the principal's ultimate goal.

For gambling operators, this can mean that even companies that sincerely strive for optimal compliance with legislation and regulations (e.g. addiction prevention and insight into unusual financial transactions) are unable to achieve this goal sufficiently on the work floor.

In addition to principal-agent problems *between* owners and managers, such problems can occur *within* hierarchical implementing organisations. They can occur within the contractual relationships between a head office and regional managers or franchisees, between departments with different interests (e.g. sales and compliance), or between prime contractors and sub-contractors. The latter is particularly relevant in the case of online operators, who outsource many business processes (e.g. management of player accounts, advertising and ICT) to third parties.[147] Under the Remote Gambling Act, as the main contractor, the licence holder bears full responsibility for compliance with the regulations for outsourced tasks.

For financial reasons, some companies do not perform sufficient critical examination of their clients. Others might fail to act on their own accord in response to signals that they may be in violation. In the corporate-crime literature on environmental offences, the latter situation is known as *wilful blindness*.[148]

## 4.8 Technology and specific risks of online gambling

Physical games of chance have existed for centuries. The origins of the current *Staatsloterij* can be traced back to 1726, when the States General of the Republic of the United Netherlands first issued the *Generaliteitsloterij* (General Lottery). Around that time, card and dice games (the predecessors of today's casino games) were also popular in inns, coffee houses and other places where people gathered for fun and relaxation. The growth of internet access for large sections of the population in the late 1990s was accompanied by an expanding range of online games of chance. Under the Betting and Gaming Act of 1964, however, it was not permitted in the Netherlands to offer interactive games of chance through the internet or any other media (i.e. *e-gaming*). Licence holders were nevertheless soon allowed to use the internet as a means of distribution/sales channel (i.e. *e-commerce*).[149] This online sales channel was licensed for lotteries, scratch cards and betting. Gaming machines and

147 Waarborging van publieke belangen bij uitbesteding in de kansspelsector, SEO i.o.v. de Kansspelautoriteit (2016).
148 Noe, S.A., 1992. Willful blindness: a better doctrine for holding corporate officers criminally responsible for RCRA violations. *DePaul L. Rev., 42,* p.1461.
149 *Parliamentary Papers II*, 2002/2003, 28600-VI-5.

casino games continued to be allowed only at the physical location of the licence holder.[150] These technological, economic and legal developments are elaborated in Section 4.8.1.

At first sight, the distinction between the physical and online supply of games of chance seems simple and clear-cut. For example, the Remote Gambling Act draws the legal boundary at high-frequency games of chance involving a physical distance between the consumer and the provider.[151] Nevertheless, games of chance that are entirely online and those that are entirely physical represent two extremes of a broad spectrum. As noted above, *e-commerce* is an online sales channel for land-based games of chance. In Las Vegas, casinos often have 'sports lounges' in which online betting can take place. Conversely, online gambling operators abroad often have physical points of sale (e.g. the betting offices in the UK).[152] Another hybrid form of online and physical gambling involves what are known as *server-based gaming machines*, which are found in many European countries. In this case, the player remains at the provider's location, but the game takes place on a central computer that is connected to the gaming machine. These differences in game environment and gaming experience are discussed in Section 4.8.2.

The specific risks associated with online gambling are discussed in Section 4.8.3, followed by a discussion of options for the regulation and supervision of online gambling components in Section 5. Given the various combinations of physical and online elements in the supply of gambling opportunities, the analysis of market organisation and regulation in Section 6 are based primarily on a classification of game types (i.e. lotteries, betting and games of chance in which a player plays for a longer period of time, as with gaming machines and casino games).

Note that a formal market definition and segmentation to cover the entire spectrum of gambling would require an in-depth competition analysis of supply and demand substitution. In order to analyse specific risks to public interests and appropriate forms of market organisation and regulation, the present document assigns precedence to categorisation of games, instead of a distinction between distribution channels.

### *4.8.1 Technological, economic and legal developments*

Although the first digital computer connections were made in the late 1960s, their application remained largely limited to military and scientific communication throughout the 1970s and 1980s. It was only with the emergence of the user-friendly World Wide Web in 1991 and the lifting of restrictions on commercial traffic in 1995

150 ECLI:NL:RVS:2017:484, paragraph 3.3.

151 In the case of lotteries, consumption also takes place at a distance from the operator or the draw, as the case may be. Due to the much smaller risk of addiction, however, lotteries fall outside the scope of the Distance Gaming Act.

152 Games of chance are by no means unique in this respect. Web-based shops (e.g. Amazon) are experimenting with physical shops, and the Dutch bol.com was acquired by Albert Heijn in 2012.

that the internet took off. In the decades that followed, communication media (e.g. email, instant messaging, digital telephony and interactive video conversations) became commonplace, and it became increasingly common to exchange information and consumer goods through discussion forums, blogs, social networks and online shops. The share of telecommunications exchanged over the internet grew from 1% in 1993, to 50% in 2000 and to 97% in 2007.[153]

Online games of chance have existed since the dawn of the internet, as outlined above. Here, we will suffice with a broad overview. Additional details and references are available in the overview by Gainsbury (2012).[154] In the 1990s, internet gambling was still limited to sites that primarily served North America from the relatively unregulated Caribbean. Around the turn of the century, illegal supply aimed at Europe also emerged. Beginning in 2003, online poker became extremely popular, due to the combination of new television options and an amateur (with the illustrious surname of Moneymaker), who became the world poker champion in Las Vegas, after having qualified for the competition through an online tournament.[155] For some time, poker was frequently broadcast on Dutch television.

Despite the increasing popularity of poker and other online games of chance, legislation and regulations around the world have been lagging behind the rapid pace of technological developments for a long time. In the United States, a federal ban on internet gambling was introduced in 2006. Much of the illegal supply persisted until 2011, when the three largest illegal online poker sites were indicted.[156] In response, several US states adopted their own legislation legalising online poker, which seems to have gained momentum since 2018, after a similar federal ban on sports betting was lifted. Currently, online poker can be played in three states, and online sports betting is available in 19 states.

Legislation on online gambling was also lacking for a long time in Europe, including the Netherlands, partly because gambling has traditionally been exempted from the harmonising regulations of the European Union. In 2003, the United Kingdom became the first European country to allow the provision of online gambling to British consumers in a regulated manner from its Crown estates (e.g. the Channel Islands and the Isle of Man) and its overseas territories (e.g. Gibraltar). Since 2001, Malta has also been a fiscally attractive place of establishment for online gambling operators, although those operators have also served almost all other European countries in a manner that was illegal in those countries.[157] One factor complicating

153 Hilbert, M. and López, P., 2011. The world's technological capacity to store, communicate, and compute information. *Science, 332*(6025), pp.60-65.
154 Gainsbury, S., 2012. *Internet gambling: Current research findings and implications*. Springer Science & Business Media.
155 Moneymaker, C. and Paisner, D., 2005. *Moneymaker: How an amateur poker player turned $40 into $2.5 million at the World Series of Poker.* Harper Collins.
156 Rose, I.N., 2011. Poker's black Friday. *Gaming Law Review and Economics*, 15(6), pp.327-331.
157 ECLI:EU:C:2010:307, paragraph 37.

the detection and enforcement of such offers was (and is) that, although the British territories mentioned (including in the pre-Brexit era) are formally outside the European Union, they have either incomplete or no sovereignty.[158]

From 2010, several European countries (including Denmark, Belgium, France and Spain) began introducing legislation that legalised and regulated online gambling and, in many cases, opened up access to the online market.[159] The most recent example is Sweden, where the market for online gambling was opened in 2019. Finally, legislation in Ireland and Germany is currently in the advanced stages. In the Netherlands, the period 2011–2019 has been used for the design, parliamentary debate and introduction of legislation with regard to online gambling.

In the period 2003–2011, worldwide revenues from online gambling increased from $7.6 billion to $23.7 billion. In the same period, online gambling turnover in Europe increased from €1.3 billion to €10.3 billion, reflecting an annual growth rate of almost 30%. The Netherlands experienced similar growth, with proceeds increasing from €19 million in 2003 to €150 million in 2011. Since 2011, the growth in revenues from online gambling has continued, albeit at a slower pace. In 2019, worldwide online gambling turnover increased to almost $49.8 billion, with revenues reaching a value of €25.4 billion in Europe and around €300 million in the Netherlands. Annual growth in Europe and the Netherlands over the period 2011–2019 was around 10%, which was less than the preceding period by a factor of three, but still well above the rate of growth in physical gambling. The share of online gambling in the total European gambling market rose from 2.1% in 2003 to 11.8% in 2011, and it reached a share of 25.3% in 2019.[160] These developments are nevertheless far from relegating traditional games of chance to a niche market.

Despite the fact that the growth of online gambling has decreased over the past decade compared to the period before, the nature of online gambling has been transformed by the confluence of three new technological developments and their spread throughout the Dutch population.[161] First, access to fast broadband internet in the Netherlands increased from 30.0% in 2005, to 80.0% in 2012, and again to 96.3% in 2019. This makes the Netherlands the European leader in fast internet coverage, and at least 86% of the population is now online on a daily basis. Second, the use of internet banking increased from 46.4% in 2005, to 71.8% in 2012, and to 84.4% in 2019. The third and most important development was the introduction of the iPhone in 2007. In the years that followed, such smartphones became an integral part of society. According to Statistics Netherlands, smartphone ownership amongst

158 A similar situation of unregulated supply emerges from Dutch constitutional units in the Caribbean, focused primarily on the American market.

159 Norway and Finland are the two most important examples of European countries where the legalisation of online gambling has been reserved to a state (or other) monopoly.

160 H2 Gambling Capital Global All Product Summary, 2020. Figures excluding e-commerce of lotteries. Turnover for the Netherlands is based on non-verifiable estimates.

161 CBS/Statline: ICT-gebruik, computerkennis en vaardigheden.

people 12 years of age and older increased from 56.5% in 2012 to 92.1% in 2019. The iPad was introduced in 2010, and the use of such tablets amongst the population 12 years of age and older increased from 45.1% in 2013 to 71.0% in 2019.

With the advent of contactless payments in 2013 and fast 4G mobile internet in 2015, smartphones and tablets have become fully integrated devices that can carry out all transactions that, in the preceding decades, could take place only through slow modems on desktop computers and with bank-card scanners. As a result, access to digital consumption has become available and accessible 24 hours a day, regardless of where the consumer is.

### *4.8.2 Changes in the gaming environment and the gaming experience*

The internet revolution of the past 25 years (as described above), along with many other forms of consumption and entertainment, has had a major impact on both the variation of supply, the gaming environment and the gaming experience. In this section, we discuss these developments for the three main forms of gambling: lotteries, betting and games of chance in which players play for extended periods (e.g. gaming machines and casino games).

The method of selling lottery tickets was undergoing considerable change before the advent of the internet. For example, until the early 1980s, the sales apparatus of the *Staatsloterij* consisted of almost 200 door-to-door sellers and almost 800 retail outlets. Currently, the *De Nederlandse Loterij* has approximately 6,000 physical points of sale and no door-to-door sellers.[162, 163] In addition, for the lotteries licensed in the Netherlands, the corresponding lottery tickets and/or subscriptions are also for sale online. The Postcode Lottery does not even sell any separate physical lottery tickets. Winning lottery tickets that were bought in person must usually be redeemed in the same shop in which they were sold, while the amounts associated with winning lottery tickets bought online are usually paid by bank transfer.[164] The gaming experience of lotteries (e.g. dreaming of a big prize in advance or watching the draw on television) does not depend on the sales channel: the draw takes place after the ticket has been purchased, regardless of where the player is at that time. In terms of the gaming environment of lotteries, the internet has thus largely eliminated transaction costs and travel distances for the purchase of lottery tickets and the cashing in of gaming winnings, while allowing the gaming experience to remain virtually the same.

For sports and horse betting, the transaction costs of the online sales channel have also been greatly reduced relative to the traditional forms of betting in shop or at the

162 eThe 'collectors' (*collecteurs*) exercised the sale of lottery tickets as their primary means of subsistence, while the receivers (*debitanten*) sold lottery tickets as additional income. The group of receivers consisted mainly of shopkeepers.

163 Annual Report 2018 - Dutch State Lottery Organisation.

164 For large prizes amounting to €10,000 or more, lotteries often follow the policy that these prizes must be collected from the head office, where financial advice is also offered.

racecourse. One important component of the game experience of betting involves closely following the event on which the wager was placed. In the past, this could be done only at matches in the stadium, on the racetrack or on one of the few television channels. With the advent of the internet, however, the supply of live sports has grown explosively. For example, there is a variety of specialised sports channels that operate online channels where viewers can follow live broadcasts of major professional sports, including football, tennis, basketball, Formula 1 racing and cycling. Moreover, the websites of online betting operators make it possible for viewers to place bets during the match (i.e. live betting), often in combination with live footage, and this can significantly increase the frequency of betting. Finally, it is also possible to bet against other consumers through the internet (i.e. *exchange betting*). These developments have transformed the game experience of sports betting into a more interactive and high-frequency form of gambling.

Despite the changes that have taken place within the betting landscape, a substantial proportion of traditional betting still occurs. For example, in 2019, physical sales of wagers in the UK (the European country with the highest rate of gambling) were still almost equal to online sales (£2.0 billion versus £2.1 billion).[165] Unlike the UK, the Netherlands currently has no physical betting offices. ZEbetting & Gaming, which operates the betting services for horse racing and trotting events, closed its last betting offices in 2018. Horse betting can still be made at the various horse racing and trotting tracks, as well as at 34 physical sales outlets. Betting forms for the sports wagers offered by *De Nederlandse Loterij* can be submitted and redeemed at the aforementioned 6,000 physical points of sale.[166]

The environment and experience of games of chance, in which the consumer has traditionally stayed at the provider's location for a continuous period of time (e.g. bingo, gaming machines and casino games) have undergone the most change since the arrival of the internet. Instead of taking place in a night-life environment that often emphasises luxury and relaxation, the player sits at home at the computer, or on the couch with a tablet. In addition, the audio-visual stimuli, especially in arcades and casinos are much more intrusive than they are through the internet, and this makes the gaming experience less intensive. Finally, the online games of chance mentioned here are likely to make players feel more anonymous and less under observation than is the case at a provider's location. At the same time, however, the online environment makes it possible to monitor the gaming behaviour of players much more closely, although this obviously does not apply to such aspects as the emotions that they display or the simultaneous use of stimulants (e.g. alcohol and tobacco).

165 H2 Gambling Capital Global All Product Summary, 2020.
166 Financial report 2018 - ZEbetting & Gaming Nederland B.V.

As is the case with sports betting, there are hybrid forms of the physical and online supply of gaming machines and casino games. In Las Vegas, casinos often have 'sports lounges', where players can watch numerous live matches on massive, room-filling screens while lounging in easy chairs. The casinos also have counters where patrons can place wagers on these matches. One niche that is still currently limited consists of online casinos from which television-studio croupiers share cards or throw roulette balls on real gaming tables. Players logged in online can then place their wagers on their own computer screens, without seeing the chips of the other players who are playing at the same time. Although communication between players and croupiers is usually one-way from the provider, a VIP experience that includes personal interaction with the croupier can also be obtained for higher stakes. Note that the transaction-cost advantages that the internet can offer in this regard are thus consciously nullified, in the attempt to approximate the experience of gaming at the physical location.

In addition to the changes that have taken place in the various individual games, another phenomenon involves operators who offer a wide range of games on the same website. Traditional betting companies also offer casino games and poker on their websites, while traditional casinos offer sports betting online. This allows consumers to become acquainted with a variety of games more quickly, even if the initial interest is limited to a single game.

### *4.8.3 Specific risks of online gambling*

By decreasing transaction costs, expanding markets and intensifying competition, the internet has brought a great deal of welfare and more consumer opportunities to society. For games of chance and other risky products, increased consumption is associated with greater risk. As covered earlier in this section, the various risks of gambling range from information problems to behavioural traps, and from addiction to crime. These risks are also associated with online forms of gambling. In addition, there are a number of specific risks that either arise or are magnified when games of chance (or parts thereof) take place online. These risks are discussed below. For a review of the literature, see Gainsbury (2012).[167] The differences in enforceability of illegal land-based versus online games of chance are discussed in Section 5.2.

#### *Susceptibility to addiction*

The most obvious risk associated with online gambling is that it makes players more susceptible to addiction than is the case with physical gambling. This has several causes.[168] First, the threshold for participation is lowered by the permanent availability and accessibility of play (e.g. by owning and using a mobile phone). The lower threshold to play also makes it difficult for former addicts to avoid falling back

167 Gainsbury, S., 2012. *Internet gambling: Current research findings and implications.* Springer Science & Business Media.

168 D.E. de Bruin (2017). *Assessment verslavingsgevoeligheid Nederlandse kansspelaanbod*, The Hague/Utrecht: Kansspelautoriteit/CVO – Research & Consultancy.

into their old playing behaviour. Although many land-based casinos and amusement arcades are also open almost all day, the travel distance and travel time required to go to such gaming locations continue to pose an obstacle that does not exist online.

Second, it is possible to play multiple games online at the same time. This is especially the case with online poker, where professional players can play on multiple virtual tables at the same time.[169] In a land-based casino, this is impossible and a professional player must either play at one table with higher wagers (with correspondingly greater fluctuations in earnings) or be satisfied with lower average winnings per hour played.

Finally, the gaming frequency of online games of chance is higher than it is for physical games of chance, as there is no need to shuffle cards or move chips on a gaming table. In addition, with live betting, money can be wagered on many events during the game, thus allowing multiple prizes to be won within a short period. Any winnings can then be immediately wagered on the next event during the match.[170] As a consequence of this combination of factors, the overall risk of addiction is higher online than it is with physical games of chance.

The high risk of addiction risk for online gambling is also evident in practice. According to an empirical study conducted on a small sample of over 500 Dutch people, 8.1% of all online players qualify as problematic players (with a reliability margin of +/- 2.3%). It should be noted that this is largely due to a selection effect. More specifically, problematic players are highly likely to *play online as well*, even though their problematic playing behaviour is not always attributable to online participation. A substantial number of problematic players spend more money and time on physical gambling.[171] International comparative research has also indicated that a greater supply of games of chance (new or existing) can lead to more gambling addiction. At the same time, however, it can eventually lead to a reduction in gambling addiction as well, partly as a result of active prevention policies.[172]

### *Fraud and fairness of the game*

The distance between the player and operator makes it difficult for players to verify the integrity of operators or the fairness of games. Such problems of trust also occur with online shops, where fraud (e.g. non-delivery of purchased products) is mitigated by financial tools (e.g. credit cards or payment after delivery). One characteristic feature of games of chance is that payments must be made in advance, as the delivery of game winnings is obviously not guaranteed.

169 Fiedler, I., 2011. The gambling habits of online poker players. T*he Journal of Gambling Business and Economics.*

170 Lopez-Gonzalez, H., Estévez, A. and Griffiths, M.D., 2019. Internet-based structural characteristics of sports betting and problem gambling severity: Is there a relationship? *International Journal of Mental Health and Addiction*, *17*(6), pp.1360-1373.

171 De Bruin, D.E., M.J. Labree, 2015. *Prevalentie van problematisch speelgedrag onder deelnemers aan online kansspelen*. Utrecht: CVO – Research & Consultancy.

172 De Bruin, D.E. and M.J. Labree, 2014. *Kansspelen op afstand*. Legalisering van online kansspelen in Europa: ontwikkelingen in kansspeldeelname en -verslaving. CVO Research & Consultancy.

As explained in Section 4.3, the statistical fairness of even high-frequency games of chance is difficult for players to determine themselves, and consumers must rely on inspections and audits (whether or not required by law). The digitally generated chance processes of online casino games and fruit games are easier to manipulate than are physically constructed roulette tables and betting machines. At the same time, however, online review sites may be better able to identify unreliable operators.

*Age verification*

Conversely, the distance between operator and player in online gambling makes it difficult to carry out full personal identification and age verification. In the case of a casino, amusement arcade or café with a gaming machine, the operator may compare a passport or driving licence to the appearance of a person who wishes to enter the premises or who does not wish to remain solely in the hospitality area. Given that physical presence is a condition for participation, access control creates a high threshold for the consumption of games of chance by minors. At the same time, however, access control does depend on human observation.

Although the online environment makes it possible to verify the identity and age shown on identity documents automatically, the only way to provide conclusive verification of the link between a participant and the identity document shown is through the use of extensive biometric checks. Even a one-off fingerprint scan (as is increasingly supported by telephones and other devices) is not fool-proof. It is therefore possible that a person who has been granted access may not be the same person who is taking part in the game of chance. If adult players perform acts of access for underage players, the access control can be circumvented through conspiracy outside the sight of the operator. Such evasive behaviour can be counteracted only through privacy-relevant controls (e.g. webcams).

Shortcuts are also possible in physical games of chance, which have cut-off points between the moments of purchase, draw and pay-out (as in the case of lotteries, scratch cards and betting forms). If an adult agrees to purchases gambling products, minors can still participate in games of chance through diversionary tactics outside of the operator's sight.

*Privacy and advertising*

One important feature of online transactions in general is that they involve the collection of much more customer data by the selling party than is the case for physical transactions. This obviously has consequences for consumer privacy. At the same time, however, such customer information provides operators with more tools for realising satisfactory 'know-your-customer' (KYC) policies in order to meet the duty of care for responsible gaming and the prevention of money laundering by players.

In addition to the registration of customer data, online games of chance allow for the storage and detailed analysis (up to the level of each individual computer mouse click) the playing behaviour of players once they have registered. Big data and analytical tools can be used to make automated and personalised advertisements and offers (e.g. bonuses) for individual players, based on their playing behaviour. In addition, the marginal cost of such advertising is virtually nil. In the case of casino games, such analyses are possible only with gaming machines that require players to log in, with chips containing computer chips or with automatic personal and object recognition in camera images. Although technology is advancing rapidly, such data analyses in the physical domain remain a thing of the future.

The registration of customer data and playing behaviour can also provide points of reference for regulation, supervision and self-protection by players. If operators are able to identify and use information on which players are most likely to continue playing if they are offered a bonus, such insights can also be used for interventions to temper excessive playing behaviour. These possibilities are discussed in greater detail in Section 5.6.

## 4.9 Identification of public interests

In Section 2, the three public interests that form the pillars of gambling policy and supervision by the *Kansspelautoriteit* are identified: preventing addiction, protecting consumers and fighting crime and illegality. Based on existing legislation and regulations, this section provides an analysis of the market and consumer failures that legitimise government intervention within the context of games of chance. In the following sub-sections, we address the relationship between this analysis and the three pillars of gambling policy.

### *4.9.1 Preventing gambling addiction*

In Section 4.5, we introduced gambling addiction as the most pressing behavioural trap in gambling. Although gambling addiction occurs amongst only a small proportion of the population, it can have a major impact on the life of addicts and those around them. Such impact on individual addicts, whose gambling disorders make them either unable or insufficiently able to represent their own interests, can be linked to the paternalistic motive for government intervention (as identified in Section 3), in order to protect consumers from themselves in certain situations. To some extent, therefore, the public interest in preventing addiction to gambling is a peculiarity of the public interest in protecting consumers.

As indicated in Section 4.6, in addition to the psychosocial health burden that they impose on the individuals concerned, gambling disorders can cause negative externalities for those around them, as well as in terms of addiction care. The public interest in preventing addiction is thus also legitimised on grounds of efficiency.

### 4.9.2 Protecting consumers

The policy objective of protecting consumers is much broader than simply protecting people who are addicted to games of chance from themselves. As discussed in Section 4.3, many games of chance are inherently trust goods, and players encounter information problems. In some cases, these problems persist without policy intervention. Without government intervention, consumers are at risk of making inefficient choices and experiencing loss of welfare due to such irregularities as an unfair course of play, theft of the money being wagered or player accounts, and product information that is missing, complex or erroneous.

As discussed in Section 4.4, various insights from the field of behavioural economics (e.g. bounded rationality, limited self-control and self-over-estimation) are relevant to the context of games of chance. As a result of these processes, even consumers who are not addicted to games of chance can still engage in behaviour that systematically deviates from their own preferences and needs. Regulations falling under the pillar of consumer protection can be aimed to mitigating the aforementioned information problems and reduce the mismatch between the preferences of players and their behaviour. Vulnerable consumers (e.g. young adults) need additional protection. Given that minors are not yet capable of making informed choices with regard to participating in games of chance, the current total ban below a minimum age limit is the most appropriate protection for this target group.

### 4.9.3 Fighting crime and illegality

As a pillar of gambling policy, the fight against crime and illegality can also be linked to market failure in the form of negative externalities that can emerge from gambling in this regard (Section 4.6.2).

Enforcement efforts targeting illegal operators and promoters of games of chance are primarily in the interest of consumer protection: consumers must be able to play safely. Illegal games of chance and their promotion (e.g. through advertising or the provision of payment services) do not channel consumers to a safe supply, in which they are protected against the aforementioned risks of addiction and deception. Moreover, in the event of disputes or outright fraud, remedies are limited.

With regard to the illegal supply of games of chance, which inherently qualify for a licence, the aim of tackling tax evasion and the circumvention of other regulations can play a role as well. Motives for enforcement can also be found within the context of enforcement against other forms of the ‘black economy’ (e.g. illegal taxis): safeguarding the public interests that are the focus of sector-specific rules, securing lost tax revenues and ensuring a level playing field with regard to operators who do comply with licensing obligations and regulations.

# 5 Regulation and market supervision

## 5.1 Introduction

The focus of this section is on types of regulation and market supervision that can curb the various market failures and risks to public interests. It addresses the prohibition and enforcement of the most harmful forms of gambling, the management of regular forms of gambling through state participation, restriction on supply and demand, financial incentives and administrative obligations, as well as the role of information and monitoring. The section concludes with a brief reflection on the counterpart to market failure – government failure – and an assessment framework for government intervention. For an overview of the extensive literature on regulation and market supervision of gambling, we refer to the work of Cabot and Pindell (2013, 2014).[173, 174]

## 5.2 Prohibition and enforcement

### 5.2.1 *Prohibited games of chance*

A generic prohibition of games of chance (or specific types thereof) is the most far-reaching restriction that a government can impose. Traditionally, the prohibition of games of chance has been justified by considerations of a moral nature (see Section 3.3.4). Such considerations are usually strongly linked to time and place. For example, in the Netherlands, the 1911 Morality Act prohibited not only games of chance, but also abortion, contraceptives, prostitution and pornography, amongst other things. Of the original provisions of the Morality Act, only offences involving obvious exploitation and victimisation (e.g. trafficking in women and sexual intercourse with minors) are currently in force.

The passage of the Betting and Gaming Act in 1964 (and the provisions that have been added since then) and the Remote Gambling Act in 2019 have virtually eliminated all generic prohibitions on games of chance. Moreover, most of the supply restrictions that do remain are no longer based on moral considerations, but on underlying market failure and risks to public interests (as described in Section 4).

Within the betting market, four categories of betting are not licensed in the Netherlands, usually because the betting events are not under the control of the gambling operator or a sufficiently reputable organisation (e.g. a sports federation). The first category consists of what is known as *event betting*, which involves betting on newsworthy events (e.g. the results of the American presidential elections, the Eurovision Song Contest or the colour of a football player's shoes during a

173 Cabot, A.N., and Pindell, N., 2013. *Regulating Internet Gaming: Challenges and Opportunities*. UNLV Gaming Press.

174 Cabot, A.N. and Pindell, N., 2014. *Regulating Land Based Casinos: Policies, Procedures, and Economics*. UNLV Gaming Press.

Champions League match). The integrity of the course of some of these events is difficult to establish. Despite the interest that may exist in this type of betting, it involves a disproportionate risk of match-fixing or insider trading.

The risk of match-fixing also exists within the context of *eSports-betting*, which has been popular for several years now.[175] In eSports betting, players place wagers on competitions between participants in various computer games. In contrast to event betting, the future recognition of these competitions as regular sports by worldwide sports federations (e.g. Sport Accord) and the associated guarantees about the integrity of the course of the match cannot be ruled out. Until such recognition and guarantees exist, eSports-betting will not be permitted in the Netherlands, even after the Remote Gambling Act has entered into force.

The third category of betting that is not licensed in the Netherlands consists of *spread betting*. In this form of betting, participants place wagers on the outcome of an event. Participants can win if the teams on which they have bet win their matches with a difference greater than a certain threshold (i.e. the *spread*). This involves two risks. The first involves a very difficult to detect variant of match-fixing known as *point shaving*, in which one of the players in the match tries to keep the score difference just inside or just outside the spread, without risking the result in terms of winning or losing.

The second risk associated with spread betting is that participants may run unlimited downside financial risk if the teams on which they have bet lose more than the downside spread. In contrast to regular betting, participants in spread betting stand to lose even more than their initial bet, and the amount to be paid is proportional to the difference between the outcome and the spread. Similar leverage risks are associated with financial products (e.g. binary options and contracts for difference). The sale of such risky financial products to non-professional investors has recently been prohibited in Europe.

A fourth category of unlicensed betting consists of betting on animal races other than horse races and trotting events (e.g. greyhound racing). Although there are twelve dog-racing courses in the Netherlands, the Betting and Gaming Act does not explicitly allow betting on greyhound racing. This may be prompted by animal welfare concerns.[176] If there are sufficient safeguards in place, there is no reason not to channel wagers on such animal races towards legal supply.

To illustrate the local and cultural nature of bans, we note that all of the forms of betting that are not permitted in the Netherlands (as mentioned here) are permitted

175 De Bruin, D.E., 2018. Gamers en gokkers, i.o.v. de Kansspelautoriteit.

176 This argument is more convincing in the case of the prohibition against animal fighting (e.g. dogs and cocks) and the associated betting, for which there is a persistent demand (and illegal supply) in some countries.

as games of chance in the United Kingdom. The only exception is spread betting, which is allowed in the UK as a regulated financial product, and is therefore subject to financial market supervision.

### 5.2.2 *Illegal supply of games of chance*

A ban on games of chance (or certain types thereof) is usually not necessary unless there is a persistent demand for such games. It is important to note, however, that a ban does not eliminate the demand for such games of chance. Depending on the likelihood of being caught and the level of punishment, there is a risk of illegal supply aimed at meeting this demand. In practice, this is also the case for games of chance. In addition to the illegal supply of generically prohibited games of chance, games that are subject to supply restrictions (e.g. a legal monopoly) are also often operated illegally. In this case as well, the illegal supply occurs primarily if the legal (i.e. licensed) supply does not sufficiently respond to the preferences of consumers. Such illegal supply can also be the result of restrictive rules (e.g. a maximum benefit percentage, high gambling tax or obligations to remit money to charities).

Conversely, the current legal supply of games of chance arose in part in response to previously illegal games that were so popular that it was considered impossible and/or undesirable to enforce the ban. Instead, the choice was made to channel players into a safe and controlled environment. One example is provided by the current sports competitions. With the introduction of professional football in the Netherlands in 1956, the KNVB organised a popular football tournament amongst its members. At that time, the government initially considered prohibiting such activity. In 1960, however, the 'Football Toto' was legalised within the Lottery Act. In the Betting and Gaming Act of 1964, the Football Toto was continued as a legal monopoly for *Stichting De Nationale Sporttotalisator* (the National Sports Totaliser Foundation). The legal monopoly on sports competitions is currently in the hands of *De Nederlandse Loterij*.

The approach to the illegal supply of casinos, bingo, lotto, sports betting and betting kiosks in the Netherlands has been described in a series of publications by the Dutch criminologist Spapens. In the following paragraphs, we provide a brief description of the nature and extent of these types of illegal gambling in the Netherlands. For a quantitative overview, we refer to the research by Homburg and Oranje (WODC, 2009).[177]

Casinos have been allowed in the Netherlands only since 1976 and, until the 1980s, there were only three branches of state monopolist Holland Casino. Partly because of the long travel time required to reach a legal casino, many dozens of illegal gaming houses were operating at the time, with many offering casino games. The

177 Homburg, G.H. and Oranje, E., 2009. Aard en omvang van illegale kansspelen in Nederland. Regioplan Beleidsonderzoek.

steady expansion of the number of legal casinos in the 1990s (reaching the current 14 establishments) served to reduce the illegal supply. The public for these illegal gaming houses consisted of problematic players who were no longer allowed to enter Holland Casino, along with people from the criminal world who did not wish to reveal themselves or the origin of their money. Due to the efforts of an integrated approach by the government (Tax and Customs Administration, municipalities, police and the Public Prosecution Service), illegal gaming casinos have virtually disappeared since 2005.[178]

Since 1973, bingo has been included in the Betting and Gaming Act as a 'minor game of chance'. Before that, it had existed as the game known as 'keno', which was popular throughout the culture of associations in the southern provinces of the Netherlands. Due to the low maximum prize offering of legal games (€400 per game, €1,550 per evening), there is a persistent illegal supply aimed at the segment of consumers wishing to play for much higher prizes. The integrated approach that was so successful in bringing casinos under control at the beginning of this century was less successful in tackling illegal bingo. Reasons for this included the fact that bingo requires much less infrastructure than a casino does, making it relatively easier to change venues or to make a fresh start under a different cover after seizure.[179] Since 2015, Holland Casino has been offering bingo in a number of locations.

Lotto has been permitted as a game of chance in the Netherlands since 1974, originally in the attempt to take the wind out of the sails of illegal lotto games organised in neighbouring countries (e.g. Germany). On a limited scale, there are still 'black lottos', which use the same draw as the legal lotto game, but with different number combinations, thereby avoiding the gambling tax and being more attractive to some players.180 Since the introduction of large jackpots in lotteries (e.g. the EuroJackpot, which was designed through a pooling structure), smaller, mainly land-based illegal lotteries have disappeared into the background. One new development, however, has to do with the illegal online supply, in which consumers can participate in foreign lotteries with high jackpots.

In contrast to lotteries, illegal sports betting has been operated and adopted on a large scale in the Netherlands, especially since the advent of the internet. Many Dutch consumers consider the games offered by the legal licence holder (currently, *De Nederlandse Loterij*) not broad or financially attractive enough, due to the relatively high tax burden. Once the Remote Gambling Act has entered into force, the objective will be to achieve at least 80% channelling to legal supply.

178 Spapens, T., 2008. Joker. *De aanpak van illegale casino's in Nederland. The Hague: Boom Juridische Uitgevers.*
179 Spapens, T., 2010. Valse bingo's. I*llegale bingo's en de regulering van kansspelen. The Hague: Boom Juridische Uitgevers.*
180 Spapens, T., 2012. Prijs. *Zwarte lotto's en illegale sportweddenschappen in Nederland en het kansspeldebat in de Europese Unie. The Hague: Boom Lemma Uitgevers.*

One particularly persistent illegal phenomenon involves 'betting kiosks', in which sports betting is operated through laptops, mobile phones or other devices. These kiosks are particularly popular amongst young men in the Turkish community, who often use them in confined spaces. One special feature of gambling kiosks is the extent to which they are intertwined with organised crime. In 2015, the estimated turnover for the Netherlands as a whole amounted to approximately €37 million.[181] Together with municipalities, the police and the Public Prosecution Service, the *Kansspelautoriteit* is taking action against this. The persistence of betting kiosks is due in part to the relatively closed environment in which the games take place, as well as to the fact that the organisers of the illegal sports betting (from which wagers can be placed from establishments in the Netherlands) are often located outside the Netherlands.

Finally, within illegal gambling supply includes a jumble of new phenomena, including cash centres and 'dipping' (i.e. the organisation of online lotteries through quasi-closed groups on social media).[182, 183]

### 5.2.3 *Cost-benefit balance of a ban on games of chance*

The economic framework developed by Becker *et al.* (2006) can be used to weigh the social costs and benefits of prohibiting certain products (e.g. alcohol, tobacco and drugs) against each other.[184] The outcome of this analysis depends on the social damage caused by consumption of the good and the demand elasticity of consumers (see Section 4.2.3). Enforcement consists of three components: deterrence, detection and punishment. Enforcement pushes up the price of illegal goods, thus reducing demand.

In presenting their framework, the authors demonstrate that a total ban is socially cost-effective only for very harmful products to which consumers are also sufficiently price-sensitive. For less harmful products with an elastic demand, a ban would prevent too little social damage in relation to the welfare that consumption of the product could also entail. In addition, the enforcement efforts required to push up the price of harmful products with inelastic demand to such an extent that consumers are no longer interested would be too costly.

High prices of illegal goods combined with a low chance of being caught could also lead to enormous profits for criminal operators that have not (or not yet) been punished.[185] Furthermore, a ban could lead large groups of people into criminal

181 Spapens, A. and Bruinsma, M.Y., 2015. Fenomeenonderzoek gokzuilen. Boom Lemma Uitgevers. Onderzoek in opdracht van de Kansspelautoriteit.
182 https://kansspelautoriteit.nl/faq/cash-centers/
183 https://kansspelautoriteit.nl/onderwerpen/a-z/dippen/ e
184 Becker, G.S., Murphy, K.M. and Grossman, M., 2006. The Market for Illegal Goods: The Case of Drugs. *Journal of Political Economy,* 114(1), pp.38-60.
185 Partly as a result of the high cost of the 'war on drugs' and the unintended power of drug cartels, recreational cannabis use has been legalised in several countries (e.g. Canada, Uruguay, South Africa) since 2013, and it is now legal in 16 of the 50 United States. In the Netherlands, cannabis use has been decriminalised. Heavier and more harmful drugs (e.g. opiates and cocaine) are still banned worldwide.

activity *de jure*. This can be illustrated by illegal trade and crime that accompanied the prohibition of alcoholic beverages in the United States in the 1920s and in the Soviet Union in the 1980s.

Given that gambling disorders do not appear to be more serious in terms of prevalence and social harm than are addictions to at least partly legalised substances (e.g. alcohol, tobacco and cannabis; see Section 4.5), it is unlikely that a social cost-benefit analysis could substantiate the total prohibition of gambling.

In order to illustrate the cost-efficiency considerations mentioned above, the legalisation of remote gambling was based on the argument that the detection and enforcement of illegal online supply would be more complex and costly than would be the case for illegal land-based offers. Operators can easily offer their services to Dutch consumers through the internet using constructions that are difficult to trace. Such supply is thus relatively complex to combat. Legalisation imposing the strict regulation of the specific risks of online gambling (see Section 4.8.3) would thus be a more effective (and cost-effective) way of adequately safeguarding the public interest.

## 5.3 The government as an operator of games of chance

In addition to prohibiting or regulating an activity, public authorities can also control a market through the whole or partial ownership of the operators. The reasoning is that, as an owner, the government can influence the day-to-day operations of a company, thereby safeguarding the public interest. As an operator of games of chance, the government can theoretically exert a very direct influence on the quality, quantity, diversity and transparency of the supply. Within a market consisting of several operators, a state participation could serve as a role model for other operators, whether directly or by means of demand-side management. It is nevertheless unclear whether these intended effects could also be achieved without state participation.

This is stated by the Ministry of Finance in the *2013 Participation Policy Memorandum for the Central Government*:

> *Like its predecessors, this paper states that state ownership proceeds from the public interest. In the case of state participation, there is a public interest which the state has decided that it would be desirable to invest on a risk-bearing basis in the company in question, in order to secure that public interest. Laws and regulations are the first appropriate tools for safeguarding the public interest. In the case of state participations, the participation can contribute to safeguarding the public interest in question [...] by assessing whether the company's strategy is in line with the public interest defined by the policy department, by either approving or rejecting investments, by determining the remuneration policy and by appointing good managers and supervisory directors.*[186]

186 Ministerie van Financiën (2013), *Nota Deelnemingenbeleid Rijksoverheid 2013*, p. 8.

According to this memorandum, legislation and regulations are the preferred steering tool, and they are regarded as transparent, and predictable, in addition to being the most efficient and effective. Steering tools (e.g. state participation) will not be utilised unless legislation and regulations do not offer the control desired by the government and if the public interests cannot be properly defined or demarcated (i.e. they are *non-contractable*).

According to the note, state participations have a greater incentive for efficiency and customer orientation than other entities (e.g. civil services or agencies), and they are less likely to lead to budget shocks, as they are not funded from the state budget. Nevertheless, the influence of state participation generally comes at a price. Especially during the international wave of privatisation in the 1980s and 1990s, a considerable body of research has been devoted to the performance of public enterprises as compared to private enterprises, as well as to the impact of privatisation. One-off proceeds from privatisation generally do not constitute a valid motive for privatisation, as they come at the expense of future dividends that will not go to the state after privatisation. Conversely, dividends do not constitute a legitimate reason to keep a company in public ownership.

In an overview article, Megginson and Netter (2001) conclude that private companies generally perform better than comparable public companies. Privatised companies are becoming significantly more efficient, innovative, profitable and financially healthier, in addition to investing more. Labour productivity tends to increase with privatisation. In many, but not all cases, production increases accordingly, such that the employment effects are also likely to be favourable.[187]

In light of the insights presented above, although a competitive environment is generally more decisive with regard to a company's efficiency incentives, ownership matters. As stated by Megginson and Netter, private companies have a clearer objective – maximising shareholder value – than do public companies. Many public companies often have multiple objectives, however, which are subject to change over time. Similarly, in the event of poor performance, public companies can generally fall back on the public treasury in order to absorb any losses, whereas private companies are subject to greater discipline from the capital market and, in the event of poor performance, they risk acquisition or bankruptcy.

In state participation, the roles of the state as a financial stakeholder (i.e. receiver of dividends), regulator and employer can lead to conflicts of interest. For example, in addition to profit, state participation in gambling markets may attach value to employment and to preventing gambling addiction or limiting supply. The latter two aspects may also be imposed as an objective for private gambling operators.

187 Megginson, W.L. and Netter, J.M., 2001. From state to market: A survey of empirical studies on privatization. *Journal of economic literature*, 39(2), pp.321-389.

In this case, however, private ownership reinforces the need to make such requirements explicit and to operationalise them through rules, regulations and licence conditions (e.g. the Central Register for Exclusion from Games of Chance [CRUKS], requirements for the opening hours of casinos and a maximum number of lottery draws). The government also makes itself vulnerable as an operator, however, as it also has a financial interest in offering games of chance. This could potentially clash with the stated motive to prevent addiction and reduce supply.

The *National Government's Participation Policy Memorandum 2013* outlines how the 1974 objective of channelling and offering a legal alternative prompted the establishment of Holland Casino as a public company. Like *De Nederlandse Loterij* (at that time, *SENS*), however, this participation is categorised as 'non-permanent', in line with the view of the Rutte II cabinet that the operation of gambling games is not a duty of the government and that there are no principled, permanent reasons for retaining these interests in portfolio.[188] On this point, the coalition agreement of the Rutte II government states:

> *'The operation of gambling games is not a core task of the government, and this is why Holland Casino was sold, subject to conditions'.*[189]

Although the current coalition agreement does not make an explicit statement in this regard, and although the bill to modernise the casino regime has been withdrawn, there are no indications that the government's current analysis or view of the long-term perspective on the ownership of Holland Casino is any different.

## 5.4 Restrictions on supply

As explained in Section 2.5, one intention of the current Gaming Act is to channel players towards a restrictive legal supply, with a single-licence system whenever possible, and an open system if there is no other option. This has led to a statutorily consistent system of legal monopolies for lotteries, scratch cards, sports betting and casinos. Exceptions to this minimum supply include charity lotteries, gaming machines and the future online supply. These exceptions can be reconciled with the current principle of a restrictive gambling offer as follows.

One important function of a charity lottery is that it allows any public-benefit entity to increase its income by organising such a lottery. If charity lotteries were subject to a single-licence system, this source of income would be available only to the licence holder and any beneficiaries, to the exclusion of all other public-benefit purposes. This would exclude charities from the possibility of earning revenue through a lottery. Moreover, charity lotteries were created for the explicit purpose of funding

188 Ministerie van Financiën (2013), *Nota Deelnemingenbeleid Rijksoverheid 2013*, p. 25, 32.
189 *Bruggen slaan. Regeerakkoord VVD-PvdA*, 29 October 2012.

*private* initiatives in support of public-benefit purposes. This principle is not compatible with a monopoly (even a state monopoly), as is the case with most other games of chance.

Prior to the 1986 legalisation on gaming machines and the legalisation of online games of chance once the Remote Gambling Act adopted in 2019 has entered into force, a single-licence system would not sufficiently meet the existing demand for such games and practice. This would result in a risk of the continued existence of an extensive illegal supply, resulting in the insufficient channelling of demand towards legal supply.

Few studies have been conducted on the effectiveness of supply reduction in relation to addiction prevention, and the results reported in existing literature are ambiguous.[190] For example, two recent studies conducted in Norway and Germany on supply restrictions for vending machines report a decrease in the number of problematic players, as well as indications of higher levels of participation in other games of chance.[191, 192] As cited in Sections 4.5.1 and 4.7.3, although the supply and advertising of gambling can lead to gambling behaviour, gambling disorders occur only in rare cases. Existing studies have not identified any causal relationship between addiction and supply or advertising at the individual level. Instead, there is a complex interaction between characteristics of the player, the game and the social environment, in which the prevention efforts of the gambling operator also have a major influence. Further research in this area is desirable.

The most recent Cabinet vision on games of chance (see Section 3.3.4) continues the idea of channelling, although it no longer proceeds from the notion of a restrictive supply, instead allowing more room for an appropriate and attractive supply, without losing sight of vulnerable players and the risks of gambling. From this perspective, the most proportionate solution would be to shift the focus of regulation and supervision towards reducing the harmful effects of games of chance (*harm reduction*) and away from far more extensive supply restrictions (*supply reduction*). The behavioural supervision of licence holders and their interaction with players is a more obvious strategy than the limitation of the number of licences.

## 5.5 Financial incentives

As discussed in Section 3.3, a government can have a variety of motives for intervening in a given market outcome. First and foremost, this could be to correct market failure and thus promote social welfare. For example, the motive could be to correct

190 McMahon, N., Thomson, K., Kaner, E. and Bambra, C., 2018. Effects of prevention and harm reduction interventions on gambling behaviours and gambling related harm: an umbrella review. *Addictive behaviors.*

191 Bu, E.T.H. and Skutle, A., 2013. After the ban of slot machines in Norway: A new group of treatment-seeking pathological gamblers? *Journal of gambling studies*, 29(1), pp.37-50.

192 Meyer, G., Kalke, J. and Hayer, T., 2018. The impact of supply reduction on the prevalence of gambling participation and disordered gambling behavior: A systematic review. *Sucht*.

consumer failures – persistent information problems and behavioural traps (e.g. gambling addiction) – and to protect consumers from themselves. Intervention could also be aimed at achieving a fairer distribution of wealth or reducing activities that are regarded as immoral.

In addition to prohibition (Section 5.2) and state participation (Section 5.3), the government can use financial incentives to influence market outcomes. It can use subsidies to promote an activity, while also using taxes and compulsory remittances to discourage an activity. The use of taxes can also serve to generate income for the treasury. As stated in Section 3.3, however, the Zenatti ruling of the European Court of Justice specifies that this does not constitute justification for a restrictive gambling policy. At most, such income can be seen as a beneficial side effect.

Depending on the type of game, gambling operators currently pay a gambling levy to finance the *Kansspelautoriteit*. For casinos, the amount of this levy is also determined by the costs of supervision within the framework of the Money Laundering and Terrorist Financing (Prevention) Act (*Wet ter voorkoming van witwassen en financieren van terrorisme*, or Wwft).[193] Once the Remote Gambling Act has entered into force, this Wwft levy will also be passed on to licensed online gambling operators. Other games of chance have thus far been exempt from Wwft supervision. A recent quick scan did not result in any changes to these exemptions.[194] Finally, once the Remote Gambling Act has entered into force, there will also be a levy for the Addiction Prevention Fund for amusement arcades, casinos and online gambling operators. In the following sub-section, we elaborate on how these levies relate to the public interests identified in the previous section.

### 5.5.1 *Efficiency and consumer protection incentives*

Externalities or external effects occur when consumers and/or producers fail to consider the full social benefits or costs of transactions in their decisions (see Section 4.6). A Pigouvian tax or levy is a tax that is equal to the negative externalities of a transaction, thus *internalising* these effects for the market participants and allowing them to take socially efficient decisions.[195] Well-known examples of such taxes include fuel taxes and a tax on $CO_2$ emissions: 'the polluter pays'. The mirror image of a Pigouvian levy is a subsidy that is equivalent to the positive externalities of a transaction in order to promote them. One major criticism of Pigouvian taxes (and subsidies) is that it is generally difficult to make an accurate determination of the magnitude of externalities of transactions.

193 A more detailed discussion of these tools (in particular, the gambling levy) is presented in: M. Batterink, W. Jongebreur & C. Peeters (2015). *Kansspelheffing op basis waarvan? Overweging van mogelijke grondslagen voor kansspelheffing Ksa.* Significant.

194 Knoop, J. van der, 2017. *Risico's van witwassen en terrorismefinanciering in de kansspelsector.* Decision Support, i.o.v. het WODC.

195 Named after the British economist Arthur Cecil Pigou (1877-1959).

The potential negative externalities of gambling markets stem from gambling addiction and gambling-related crime (e.g. money laundering; see Section 4.6). The costs of monitoring and enforcement in gambling markets, and especially the costs of the Kansspelautoriteit, can also be seen as a negative external effect. Gambling addiction constitutes justification for government intervention, for reasons of efficiency, as well as with a view to correcting consumer failures (see Section 4.8).

If the external costs of gambling addiction can be determined accurately, it is possible to levy a Pigouvian tax with a total revenue equal to those external costs. It is important to note, however, that the effectiveness of a uniform tax for each participant in proportion to the ticket-purchase price or the amount of prize money being won is at best questionable, as the number of at-risk and problematic players, and the number of players with a gambling disorder tend to be very small in relation to the total number of players. For recreational players, such a tax would therefore be far too high, while being too low for the at-risk groups mentioned. As a result, such a tax would contribute hardly anything to the promotion of socially efficient transactions. On the contrary, the vast majority of players would be unfairly discouraged, while at-risk groups would receive hardly any discouragement.

The complications associated with a Pigouvian tax do not alter the fact that gambling generates negative externalities, mainly through the costs of addiction care and debt assistance, and that prevention policies aimed at tackling gambling addiction are socially desirable. Due to the aforementioned extreme skewed distribution of the external effects of gambling addiction, internalisation through gaming operators would be more efficient and effective than any fixed or percentage levies for individual players or winners. In addition, gambling operators benefit from gambling addiction through their gaming revenue, while also being in a better position (through the customer relationship) than the government or addiction-care services are to identify problematic gaming behaviour.

With regard to the external effects of gambling-related crime (e.g. money laundering), a Pigouvian tax is unlikely to be effective, as this form of crime is highly skewed (e.g. in contrast to the case of emissions from the burning of petrol). As is the case with the costs of addiction, the internalisation of these costs through the operators of games that are vulnerable to money laundering transactions (especially casinos and sports betting) would be more effective and efficient, particularly given that they can benefit from money-laundering transactions and are in the best position to detect dubious transactions. It is nevertheless important to ensure that the burden is not so high that it encourages non-criminal players to seek out illegal operators who evade the tax.

The gambling levy (which is used to finance supervision by the *Kansspelautoriteit*) and the addiction-fund levies mentioned at the beginning of this sub-section could be regarded as Pigouvian taxes on the external costs generated by gambling. In the ideal situation, the total levy should be equal to the actual external costs. Further research could provide a sharper picture of the actual costs, thus possibly leading to a corresponding increase or decrease in the levy. From a dynamic perspective, this would provide gambling operators with better incentives to tackle addiction and money laundering, as this would lead to a reduction in the levy. The fact that operators are liable to pay the fees is in line with the skewed distribution of external costs across players.

As a financial incentive to encourage behaviour with *positive externalities*, subsidies are not the obvious solution for gambling markets. As emphasised in Section 4.6, charity lotteries subsidise donations to charities through their prize pools, which may offer at least a partial solution to the free-rider problem within the philanthropy market.

### 5.5.2 *Incentives aimed at justice and morality*

Financial incentives aimed at promoting a fair distribution of wealth across citizens can play a role and be a motive for taxing gambling profits. As mentioned in Section 3.3, within this context, the *windfall profit principle* and the notion that the distorting effect of taxing gambling profits is expected to be more limited than that of labour taxation. The behavioural-economic phenomenon mentioned in Section 4.4.1 that less value is attached to money that has been won (the 'house money effect') also points in this direction.

A gambling tax on prize money (especially for larger prizes) is justifiable as a means of mitigating the wealth inequalities that are caused primarily by large prizes, as well as according to the fact that it would be optimal from the perspective of social welfare to draw government revenue from the least distorting (i.e. inelastic) tax bases. Such a tax could also be optimally efficient from the perspective of social welfare, given that the government must obtain its income from somewhere.

From the perspective of gambling operators, it is also relevant that European regulations exempt games of chance from the value-added tax (VAT). At the same time, however, this means that gambling operators cannot deduct the VAT that they pay on their own costs and purchases from their VAT returns. In some cases, this could have a negative impact on business decisions. For example, it might be fiscally more advantageous to have a cleaner on the payroll than it would be to contract with a cleaning company, even though the latter might be more efficient (depending on the scale at which a company operates).

The determination of the base, rate and exemption threshold that will lead to an optimal form of gambling tax is an empirical question, the answer to which is likely to differ by segment in the gambling market. In addition to the administrative benefits of uniformity, it is also important to consider channelling. More specifically, the tax should not be so high that it drives many players towards illegal operators who do not pay any such tax. Extensive treatises on the history and possible future design of the gambling tax have been published by Enter (2009) and Flinterman (2018), respectively.[196, 197]

As indicated in Section 3.3, the current Coalition Agreement regards the reduction of gambling addiction as a particular point of attention, although it does not adopt any moral position on gambling.[198] In addition, in the most recent Cabinet vision, gambling is regarded primarily as a risky leisure activity, without making any moral judgment.[199] In this respect, the term 'sin tax' does not adequately cover the meaning of gambling taxes in the current era.

If there were broad support for reducing gambling on the grounds of serious moral objections, strong financial incentives would be a more suitable tool than a total prohibition in many cases. For example, as cited in Section 5.2.3, the study by Becker *et al.* (2006) indicates that, in the event of an inelastic demand for products with limited harmful effects (as is the case for games of chance), an optimal tax rate would lead to a level of consumption even lower than would the optimal enforcement of a total prohibition in terms of social costs and benefits.[200]

## 5.6 Permits, requirements and information

In this sub-section, we provide a broad overview of the various forms of regulations (in general regulations or through licensing conditions) that can mitigate the market failures and risks to public interests identified in Section 4. We also discussed the ways in which governments can inform consumers about the risks of gambling. With the advent of games of chance on the internet (see Section 4.8), many countries have modernised their gambling legislation (which is often decades old) to reflect the state of the art, as presented in the latest scientific insights on limiting the risks of games of chance. In 2014, the European Commission issued recommendations on a fine-grained system of rules that Member States could include in their laws and regulations.[201] The Dutch legislature has incorporated most of these rules into the Remote Gambling Act, and they will apply to traditional physical gambling as well.

196 Enter, T., *Kansspelbelasting, FED fiscale brochures*, Wolters Kluwer, 2009.
197 Flinterman, *O., Kansspelbelasting: is herziening een gok waard?* Master's thesis, 2018.
198 *Vertrouwen in de toekomst. Regeerakkoord 2017 – 2021* (VVD, CDA, D66 & ChristenUnie).
199 *Parliamentary Papers II*, 2010/2011, 24557, 124, p. 3.
200 Becker, G.S., Murphy, K.M. and Grossman, M., 2006. The Market for Illegal Goods: The Case of Drugs. *Journal of Political Economy,* 114(1), pp.38-60.
201 2014/478/EU, Commission Recommendation of 14 July 2014 on principles for the protection of consumers and players of online gambling services and for the prevention of minors from gambling online.

### 5.6.1 *Licensing and information requirements*

Licensing is a preventive form of regulation intended to exclude unsuitable individuals and companies from a particular profession or a market through the prior assessment of licensing criteria before their actions could jeopardise public interests. Licensing is most effective if the service provider is in a position of trust relative to consumers (e.g. notaries and lawyers), if consumers are mentally or physically vulnerable relative to the service provider (e.g. doctors and police officers), if the quality of the products or services provided is difficult to verify (e.g. auditors) or if subsequent enforcement would be less effective (e.g. pilots).[202] One possible disadvantage of a licensing system is that it could have an anti-competitive effect.

Many of the aforementioned circumstances in which licensing could be effective in protecting the public interest arise in the case of games of chance. Players must have confidence that the game of chance is being played fairly and that they are not being deceived, and they must be told to stop in good time if they are clearly no longer in a position to make informed decisions. Gaming operators are therefore subject to licensing requirements in virtually all jurisdictions in the world. This is also the case in the Netherlands, where Article 1 of the Betting and Gaming Act provides that it is only permitted to offer licensed games of chance. An exception is made for promotional games of chance, which, under certain conditions (e.g. being free to play), are not subject to licensing.

In many countries, including the Netherlands, the criteria that are used for assessing suitability for licensing consist at least of integrity, suitability in the field of gambling techniques and compliance, and financial stability. An application for a licence is often accompanied by considerable information obligations in the areas being assessed. In addition, the licensing authority usually charges a fee, and the operator may be required to provide a bank guarantee to cover future sanctions.

In the assessment of integrity, a distinction is made between the ultimate owners (major shareholders and other capital providers) and the key players that bear a decisive influence on the course of business (i.e. 'policymakers').[203] The ultimate owners and policymakers are assessed for the absence of recent violations in the field of criminal law and taxation. The truthful completion of questions asked when applying for a licence is also a condition for being considered reliable.

An operator's suitability consists primarily of technical competence, including having approved gaming systems (physical or digital), comprehensive access control and age verification, and recording systems for the gaming behaviour of their customers. Another important component of suitability has to do with compliance. For games

202 Cabot, A.N., and Pindell, N., 2013. *Regulating Internet Gaming: Challenges and Opportunities*. UNLV Gaming Press.

203 Michael, G.S., 1982. Whose License Is It, Anyway-The Evaluation of the Suitability of a Corporation for a Casino License. *Seton Hall Legis. J.*, 6, p.41.

of chance, this includes the adequate application of money-laundering controls and interventions aimed at addressing problematic gaming behaviour and addiction. The assessment of licence applications is primarily about whether the operator has the proper internal control procedures and trained staff.

During the period of licensing, the proper implementation of money-laundering controls and addiction prevention can be verified through on-site inspection. In many cases, licensing conditions often include obligations concerning the information that the operator must provide periodically to the licensing authority. The same authority (in most cases, the *Kansspelautoriteit* or a municipality; see Section 2.3) also acts as the supervisor of the licensing conditions.

Financial stability means that an operator is not bankrupt or in receivership at the time of the licence application, and that the operator's financial resources have not been seized. It is important to note, however, that even commercially sound gambling markets are obviously not immune to economic setbacks. In any case, by separating player accounts from corporate capital, bankruptcies can be settled in an orderly fashion without players suffering as a result.[204] This is particularly the case for online gambling and, to a lesser extent, for casino games (where chips are sometimes taken home).

An additional complication can occur in lotteries, where there is a longer time lag between the sale of tickets, the drawing of results and the pay-out of prizes. During these periods, the transfer of prize money to player accounts could then fall between the cracks. For most participants, bankruptcy just before a lottery draw would result in a manageable loss of at most a few lottery tickets, which could nevertheless add up to a significant social loss. In addition, bankruptcy that occurs after a draw but before the pay-out would result in the winners incurring a 'loss'. Even though such a loss is only virtual, it is nonetheless sour. In the Netherlands, this has never occurred on a large scale.

The thoroughness of scrutiny in the assessment of applications for licensing should be weighed against the applicant's need for a smooth turnaround time, legal certainty and privacy. When granting licences for online gaming operators once the Remote Gambling Act has entered into force, the *Kansspelautoriteit* will be bound to a maximum assessment period of six months. In addition, excessively strict assessment when granting a licence could create barriers to entry.205 For example, if suitability can be demonstrated only by previous experience with the operation of comparable games of chance, it would be impossible for a new company to join.

204 Stocker, R.W., 2008. Gambling with Bankruptcy: Navigating a Casino Through Chapter 11 Bankruptcy Proceedings. *Drake L. Rev.,* 57, p.361.

205 Kleiner, M.M. and Krueger, A.B., 2010. The prevalence and effects of occupational licensing. *British Journal of Industrial Relations,* 48(4), pp.676-687.

### 5.6.2 *Rules aimed at consumer protection*

The information problems and behavioural traps described in Sections 4.3 and 4.4 can be largely mitigated by rules on advertising and transparency regarding product conditions and game characteristics. A number of structural requirements on the identity and suitability of operators (e.g. assessments of integrity) have already been addressed in the previous sub-section on licensing. The separation of player accounts from company capital and approved gaming systems are also matters that must be structurally sound before a licence is granted.

Consumer protection against undesirable behaviour by a licensed operator depends primarily on advertising. The nature and focus of advertising play a key role in this respect. A central feature of the Dutch advertising policy for games of chance is the notion that advertising should channel existing demand for games of chance towards licensed supply, and that it should not activate any new, as yet unavailable demand. This dividing line is difficult to maintain in practice, however, as many accepted forms of advertising (e.g. on television or in public spaces) are also seen by consumers who are not yet playing.

There is broad consensus in Europe with regard to numerous restrictions on gambling advertising. According to the recommendations of the European Commission, advertising should not contain unsubstantiated statements about the odds of winning or the amount of prize money that players can expect from gambling games. Nor should advertising suggest that the outcome of a game can be influenced by skill if such is not the case. No pressure should be exerted on consumers to participate in games of chance, and abstinence from gambling should not be presented as negative. Furthermore, advertising should not give the impression that gambling is socially attractive. Celebrities hired by the provider should not suggest that gambling contributes to social success. Finally, advertising should not suggest that gambling offers a solution to social, professional or personal problems, or that it could be an alternative to employment or a more financially secure investment.

Like gambling participation by minors, gambling advertising aimed at minors is prohibited. Advertising for gaming machines and casinos may not target young adults (18–24 years of age), even though this group may legally participate in games of chance. This restriction applies not only to the media used to advertise, but also to the sponsorship of events, promotional materials or merchandising intended for or primarily aimed at minors or young adults. The same policy applies to alcohol and tobacco: although consumption is permitted from the age of 18, advertising is permitted only from the age of 24. A more detailed discussion of advertising restrictions is provided in the literature cited in Section 4.7.3.

Existing gambling regulations also contain technical regulations aimed at limiting the risk of addiction (e.g. the maximum number of lottery draws and the maximum throw-in and playing frequency for gaming machines).

### 5.6.3 *Rules aimed at preventing addiction*

Some participants in games of chance suffer from limited self-control, with problematic playing behaviour and gambling addiction being extreme manifestations. In addition, some games of chance are risky, by their very nature. In order to address and, preferably, prevent gambling addiction, recreational players could also benefit from regulations that facilitate or even enforce self-control. One term that is commonly used in international literature for this purpose is 'responsible gambling'.

One effective self-control tool is to set a playing limit, which does not need to be tied to a legal maximum stake. An operator may choose to not accept wagers higher than a player's chosen limit. In many cases, an operator may require a cooling-off period before players can raise their own limits.[206] Studies have indicated that the 10% most frequent and intensive online poker players spend up to 25% less than their reference group does after setting their own chosen playing limits.[207] Due to the better registration of playing behaviour, playing limits are easier to implement online than they are in physical games of chance. In principle, gaming machines that work with player identification are also suitable for facilitating self-selected play limits. Once the Remote Gambling Act has entered into force, all online players in the Netherlands will be required to set their own playing limits.

One special case of a player limit occurs when a player does not want to play at all (i.e. 'self-exclusion').[208] In order to prevent a player who has self-excluded from one operator from subsequently playing with another operator, many countries have introduced a central register. Before a player enters the premises or logs on to the website, operators must first check the register to verify that the player has not already self-excluded. In contrast to self-exclusion limits that players can change themselves, such self-exclusions are often for periods of at least six months. During that time, an operator may not accept excluded players, nor may players undo their own self-exclusions. Once the Remote Gambling Act has entered into force, a Central Register for Exclusion from Games of Chance (CRUKS) will be set up in the Netherlands, to which arcades and casinos will also be connected.

206 Blaszczynski, A., Collins, P., Fong, D., Ladouceur, R., Nower, L., Shaffer, H.J., Tavares, H. and Venisse, J.L., 2011. Responsible gambling: General principles and minimal requirements. *Journal of gambling Studies*, 27(4), pp.565-573.

207 Auer, M., Hopfgartner, N. and Griffiths, M.D., 2020. The Effects of Voluntary Deposit Limit-Setting on Long-Term Online Gambling Expenditure. *Cyberpsychology, Behavior, and Social Networking*, 23(2), pp.113-118.

208 Gainsbury, S.M., 2014. Review of self-exclusion from gambling venues as an intervention for problem gambling. *Journal of Gambling Studies*, 30(2), pp.229-251.

As addressed in Sections 4.5 and 4.6, individuals with gambling disorders can impose external effects (including debt problems) on those around them. One far-reaching form of regulation that counteracts this situation is the forced exclusion of gambling participation on the recommendation of interested third parties, such as the partner or even the operator (e.g. because a player is harassing other customers). This will also take effect once the Remote Gambling Act has entered into force.

Experience with forced exclusion has already been gained in other countries. In Belgium, around 300,000 people are excluded, including practitioners of integrity-sensitive professions (e.g. notaries, police officers and judges), as well as individuals who have been excluded at their own request or at the request of their families, and those who are involved in collective debt settlements. The paternalistic nature of such measures may be justified by the fact that players who are forcibly excluded tend to play more intensively before their exclusion period than do those who exclude themselves voluntarily.[209]

Remarkably, the preventive measures introduced by the Remote Gambling Act do not include any time-limited form of self-exclusion (i.e. a mandatory time-out period of at least 24 hours). Although this measure, which is recommended by the European Commission, offers protection for periods shorter than six months, it also lowers the threshold for players to self-exclude for a short time. Players who periodically experience problems with self-management (e.g. on payday) could benefit from this. Operators should nevertheless allow players to be excluded voluntarily for short periods. The aforementioned CRUKS register does not include such a measure, and it therefore does not apply to visits to other operators, where it will still be possible to play. One advantage of centrally registered shorter self-exclusions would be that operators would not lose their customers to competitors as a result of such preventive self-exclusion. Another advantage is that players would enjoy better protection.

In addition to the aforementioned forms of protection that players (or those around them) must initiate themselves, operators must also provide the necessary information and carry out various interventions. For example, they could do this by pointing out risks and available help by communicating the message that uncontrolled gambling can be harmful, or by providing information on the website about available support measures for the player, offering tests that allow players to assess their own gambling behaviour, and sharing leaflets or web links to organisations that provide information about and assistance with gambling disorders. A discussion of the empirical effectiveness of these measures would exceed the scope of this vision document. A detailed overview is available in Harris and Griffiths (2017).[210]

209 Kotter, R., Kräplin, A. and Bühringer, G., 2018. Casino self-and forced excluders' gambling behavior before and after exclusion. *Journal of gambling studies*, 34(2), pp.597-615.

210 Harris, A. and Griffiths, M.D., 2017. A critical review of the harm-minimisation tools available for electronic gambling. *Journal of Gambling Studies*, 33(1), pp.187-221.

### 5.6.4 *Information and behavioural change*

The rules referred to in this section are aimed primarily at gambling service operators. In contrast, information is often directed at consumers. The information problems and behavioural traps described in Section 4 can be mitigated by consumer information that is intended to change behaviour.

Information about the risks of gambling is provided at various levels of government: from the Ministry of Justice and Security, the *Kansspelautoriteit* to municipalities. Once the Remote Gambling Act has entered into force, the Addiction Prevention Fund will also provide a national desk for providing information on and assistance with gambling problems. Operators of games of chance will be able to refer to this resource.

In addition to making the risks of gambling clear to players, information can provide the people in the social circles of players with indications of problematic playing behaviour. This can reduce the stigma of addiction, thereby making it easier to raise the issue of gambling and debt. It is easier to inform consumers who play recreational games about the risks of gambling through education than it is to achieve lasting behavioural change in people with gambling disorders through treatment. The first and foremost prerequisite for changing behaviour is to establish exactly which objective is being pursued.[211] It is also important to select the right intervention, and then to implement and monitor it carefully.[212]

For many harmful products (e.g. tobacco and alcohol), the government regularly operates information campaigns in various media for consumers and vulnerable groups (e.g. minors), often in conjunction with consumer organisations. Other forms of information include slogans (e.g. 'play consciously' or '18 plus' for games of chance) and warnings on product labels or at the entrance and check-outs of points of sale. A careful target-group approach is needed in order to avoid inadvertently leading consumers who have not yet come into contact with the harmful products in question to start experimenting with them. For example, in the case of young children, it may be more prudent to educate parents or teachers.[213] As indicated in the international research literature, the design and implementation of information on games of chance in schools often leaves substantial room for improvement.[214]

Another target group for information consists of the employees of gambling operators. It is important to train employees to recognise problems amongst consumers, in order to be able to apply the interventions on gambling addiction

211 Peters, G.-J., 2014, A practical guide to effective behavior change: how to identify what to change in the first place. *The European Health Psychologist* 16(5), pp. 142-155.

212 Kok, G., 2014. A practical guide to effective behavior change: How to apply theory-and evidence-based behavior change methods in an intervention. *The European Health Psychologist* 16(5), pp. 156-170.

213 Onrust, S.A., 2016. Schoolprogramma's om middelengebruik tegen te gaan in verschillende leeftijds-fasen. *Verslaving*, 12(3), pp.188-202.

214 Keen, B., Blaszczynski, A. and Anjoul, F., 2017. Systematic review of empirically evaluated school-based gambling education programs. *Journal of gambling studies*, 33(1), pp.301-325.

described in Section 5.6.3.[215] At the same time, however, it is also important for operators to make their employees resilient to spending long periods in close proximity to customers who exhibit risky behaviour. Such behaviour includes participation in gambling, as well as the consumption of tobacco and alcohol. Such exposure can pose a risk to the behaviour and health of employees in their private lives.[216]

The work by Becker *et al.* (2006) on prohibiting the supply of harmful products (as cited in Section 5.2.3) also addresses reducing the demand for such products through the provision of information. The social cost-effectiveness of information depends on whether the reduction in harmful consumption outweighs the direct costs of information and the indirect costs of consumer resistance to being informed about the harmfulness of products. The authors conclude that information is particularly useful for cases in which prohibition would be either ineffective (due to inelastic demand) or disproportionate (due to limited harmfulness). For moderately harmful products with inelastic demand (e.g. games of chance; see Section 4.2.3), information fits well with financial tools (e.g. gambling taxes and levies) to discourage demand (see Section 5.5.1).[217]

## 5.7 Government failure and assessment framework

In Section 3, we provided a discussion of the social motives that may exist for interventions aimed at correcting the outcomes of free-market forces and, in Section 4, we addressed the various market and consumer failures that are likely to occur in gambling markets. In, the preceding sub-sections of Section 5, we have provided an overview of the range of tools that public authorities can use to correct the outcome of markets. These tools range from the prohibition of state participation and the restriction of supply to incentives, regulation and information.

One important comment on this set of tools is that any intervention in market outcomes is necessarily accompanied by a number of classic traps, which are known as *government failures*. As addressed in the previous discussion of state participation (Section 5.3), as a provider within markets, the government is often less efficient and innovative than private parties are, due to the absence of the disciplining effects of the capital market, as well as because the government must often pursue multiple objectives and roles at the same time, including that of regulator, enforcer, employer, receiver of dividends and guardian of the public interest.

215 Giroux, I., Boutin, C., Ladouceur, R., Lachance, S. and Dufour, M., 2008. Awareness training program on responsible gambling for casino employees. *International Journal of Mental Health and Addiction*, 6(4), pp.594-601.

216 LaPlante, D.A., Gray, H.M., LaBrie, R.A., Kleschinsky, J.H. and Shaffer, H.J., 2012. Gaming industry employees' responses to responsible gambling training: A public health imperative. *Journal of Gambling Studies*, 28(2), pp.171-191.

217 Becker, G.S., Murphy, K.M. and Grossman, M., 2006. The Market for Illegal Goods: The Case of Drugs. *Journal of Political Economy*, 114(1), pp.38-60.

Even if the government does not act as a provider within a market, but only sets rules and regulations, such interventions can have undesirable effects. For example, regulated companies are likely to invest time and energy into influencing policy to their advantage through lobbying. More specifically, these companies could be expected to know the market and their own businesses better than the regulators do, such that they are able to influence regulations to their advantage. In some cases, regulators might actually come to represent the interests of regulated companies.[218] In addition, due to information problems (amongst other factors), the principal-agent problems described in the previous section are likely to occur both within companies and between the government (as a regulator) and the regulated companies.

Another potential source of government failure is the fact that government intervention is less flexible in responding to rapidly changing market conditions, in addition to being 'behind the times', due to the high demands placed on the careful drafting of rules and decisions. In general, therefore, it is important to formulate policy in a way that is as technologically neutral as possible, and that is independent of the identity of specific parties. One example of technique-dependent intervention has to do with the treatment of such games as blackjack on gaming tables in casinos, on gaming machines in arcades and on the internet. Different regulations for each of these three manifestations of the same game can generate an uneven playing field, also in addition to encouraging evasive behaviour on the part of operators. Conversely, they could discourage innovation or efficiency-enhancing investment, thus making it more difficult for licensed supply to compete with illegal supply.

When designing regulation and market supervision, all of these potential government failures – including the social costs of creating, enforcing and complying with the actual rules – should be weighed against the market failures they seek to correct. If the assessment should reveal that the side effects of the remedy (i.e. government failure) are worse than the ailment (i.e. market failure), it is sometimes wiser not to intervene, although this is not always easy in political and social terms.

The observations stated above are in line with the 2013 publication *Toezicht op publieke belangen* (Supervision of public interests), in which the Scientific Council for Government Policy (WRR) advocates a vision on supervision, in which the public interest constitutes the benchmark:

218 Stigler, G.J., 1971. The theory of economic regulation. *The Bell journal of economics and management science*, pp.3-21.

> *'Proceeding from the public interest [...], the desired and realised supervisory revenues are taken into account, and they can be better balanced against the burden and costs'* (WRR, 2013, p. 117).[219]

In this way, the call for more supervision and enforcement when incidents occur can be balanced against the call for less supervision and constricting rules when things are going well.

219 Wetenschappelijke Raad voor het Regeringsbeleid (2013). *Toezien op publieke belangen. Naar een verruimd perspectief op rijkstoezicht.* Rapporten aan de Regering 89.

# 6 Vision on submarkets

## 6.1 Introduction

This final section builds on the previous sections to present a vision on the market organisation and other aspects of regulation for each sub-market. The views on the various submarkets are intended as a point of reference for future policymaking within the broader policy agenda for the modernisation of legislation and regulations for games of chance, as set in motion by the government's 2011 vision and subsequent policy proposals on the various submarkets (e.g. lotteries).

To define submarkets, we use the most plausible patterns of substitution in the preferences of consumers and the technological capabilities of producers. For the purposes of this vision paper, this results in a three-way classification into sub-markets for lotteries, sports betting and, finally, casino games and gaming machines. This classification is coarser than the current licensing system. In particular, instead of devoting an independent partial vision to online gambling, we discuss it as an alternative distribution channel through which games of chance with certain characteristics are provided. Where the specific characteristics call for a differentiation in organisation or regulation, we make an explicit distinction (see also Section 4.8).

The vision for each sub-market starts with a factual characterisation, including the relevant product characteristics, the current number of players and financial size, and the forms of regulation that currently apply. These characterisations are not intended to be exhaustive, and they are not immutable. Above all, they serve to provide a context for the vision on the organisation and regulation of each sub-market.

The visions for the various sub-markets identify the relevant public interests and how the government could safeguard them in the most consistent and least invasive manner within the framework of its vision, in order to provide room for a suitable and attractive supply. The standardisation of existing rules with the modern Remote Gambling Act – with free entry under strict conditions – was used as a point of reference.

The general thrust of the sub-market visions therefore entails removing supply constraints (e.g. state participation and monopolies) and focussing on regulation through financial incentives, rules of conduct and information, with the objective of mitigating gambling-specific risks and safeguarding the public interest. The visions for each sub-market outline a 'blueprint' for achieving these objectives. A detailed interpretation of these 'final images' – and particularly the possible transitions towards them – falls outside the scope of this document.

*Reading guide*

This section is structured as follows. First, we address the various visions of traditional games of chance. This is followed by Section 6.2, in which we discuss the vision on the lottery market. In Section 6.3, we present the vision on the sports-betting market, followed by the vision on the market for casino games and gaming machines (Section 6.4). The demarcation of and the vision on adjacent markets (e.g. games of skill, games and financial products) are discussed in Section 6.5.

## 6.2 Lotteries

In the following sub-sections, we discuss the lottery sub-market in terms of the supply, the players and their behaviour, the risks to specific public interests, and the most likely scenario of market organisation and regulation.

### *6.2.1 Operators and supply*

In a lottery, prizes are awarded to participation certificates – lottery tickets – with a draw taking place well after the time of purchase and at a distance from the player.[220] With the exception of scratch cards, lotteries are distinguished from other games of chance by the fact that, in most cases, a period of one or more days (in the case of separate lottery-ticket sales) to weeks (in the case of subscriptions) will elapse between the ticket purchase and the draw or pay-out, and the maximum prizes to be won are high in relation to the ticket price. In contrast to casino games, gaming machines or sports betting, the grand prize or jackpot in a lottery can be millions of times greater than the ticket price. At the lower end of the prize package, lotteries also have small prizes, which at most pay back the ticket price, but give players the feeling that there is something to be won.

In the Netherlands, the Betting and Gaming Act allows room for a *national lottery*, a *lotto* and an *instant lottery* (popularly known as 'scratch cards'), with the licence holders for these three types of lotteries being permitted to operate multiple games. In addition, an indefinite number of licences may be granted for charity lotteries. The various licences differ primarily in terms of the obligations concerning how the ticket-sales revenue can be used.[221] The national lottery must pay out at least 60% of the total ticket-sales revenue in prizes and at least 15% to the state. The games of chance operated under the lotto licence have a minimum joint pay-out percentage of 47.5%, and they must pay at least 18% to the NOC*NSF and the *Stichting Aanwending Loterijgelden Nederland* (ALN; the Netherlands foundation for the allocation of lottery monies). The instant lottery is subject to the same minimum pay-out percentage, and it transfers the full profit after deducting prizes and costs to the NOC*NSF and ALN. There are no further quantitative requirements for this pay-out. Charity lotteries do not have a minimum pay-out percentage, but they are obliged to pay

220 It is possible to attend lottery draws, and the lottery's drawing procedure is supervised by a notary public.

221 *Marktscan landgebonden kansspelen 2018*, Tabel 4.

at least 40% of their contributions to 'some public-benefit purpose'. Whereas the *maximum* effective prizes (the part of the entry not paid out as prize money; see Section 4.2.3) of the national lottery and lotto/instant lottery are 40% and 52.5%, respectively, the *minimum* effective prize of the charity lotteries is 40%.[222]

In addition to differences in the rules concerning the use of ticket-sales revenues, there are also differences between types of lotteries with regard to the number of draws allowed per year and the maximum price of a lottery ticket. Despite these differences, there are indications that a certain amount of substitution and competition occurs between the various lotteries. In addition, the player populations of the various lotteries are quite similar in terms of demographic and socio-economic characteristics.[223] According to the ACM, there is only one possible market for lotteries and lotto games. In practice, however, competition is limited, primarily as a result of regulatory influence.[224] In the case of lotteries, licences also allow operators to offer their services online, and many players take advantage of this option. This possibility of *e-commerce will* continue to exist even after the Remote Gambling Act has entered into force.

The three monopoly licences (i.e. national lottery, lotto and instant lottery) fall under the holding company *Nederlandse Loterij B.V.*, through its subsidiaries (*Staatsloterij* and *De Lotto*). In 2018, the turnover for these three monopolies amounted to €685 million (national lottery), €186 million (lotto) and €95 million (instant lottery), for a total turnover of €966 million.225 The holding company *Goede Doelen Loterijen N.V.* includes three subsidiaries with licences for charity lotteries: the *Nationale Postcode Loterij* (Dutch Postcode Lottery), the *BankGiro Loterij* (Bank-draft Lottery) and the *Vriendenloterij* (Friends' Lottery), with turnover amounting to €741 million, €159 million and €122 million, respectively, for a total of €1,022 million in 2018.[226]

In addition, the *Stichting Samenwerkende Non-profit Loterijen* (Cooperating Non-profit Lotteries Foundation) acts as the licence holder for a number of small charity lotteries, including the *Grote Clubactie* (Great Club Campaign), the Jantje Beton Lottery and the *KWF Seizoensloterij* (Dutch Cancer Society Seasonal Lottery), with a combined turnover of €24 million in 2018. Since the establishment of the new policy rules for charity lotteries in 2016, three new license holders have been added, albeit with only a modest turnover.[227]

222 From 1 January 2020, the minimum contribution rate will be reduced to 40%.
223 Tieben, B., Witteman, J., Hof, B., Poort, J., Biesenbeek, C., Buunk, E. (2017). *Financiële consequenties beleidsopties herinrichting loterijmarkt, SEO Economisch Onderzoek,* Amsterdam, Section 3.5.
224 Besluit van Autoriteit Consument en Markt, Zaaknummer: 15.0783.24/SENS-SNS.
225 In 2019, the total turnover of *Nederlandse Loterij B.V.* increased by 12% (from €1.2 billion to €1.3 billion), relative to 2018. No breakdown by the various products is available. *Nederlandse Loterij* (2020). *Jaarverslag 2019. Waarde creëren door sterk samenspel.*
226 In 2019, the turnover of these three lotteries together increased by 2.3% to €1.0 billion.
227 Lottovate Nederland B.V. and Impact Loterij B.V. are currently not active. Fairshare Nederland B.V. realised a turnover of approximately €320 thousand in 2018.

Finally, 'occasional' permits are granted each year for a maximum period of six months (e.g. for the construction of a new clubhouse for a sports club). Since 2020, these permits have required a minimum contribution of 40%, although it is significantly higher in practice. In 2018, there were 33 applications, with a combined turnover of €2.7 million. The total investment in the lottery market thus amounted to €2.0 billion in 2018.[228] In that year, an average of 50% of the turnover from all lotteries was paid out in net prizes, and the gross gaming result was approximately €1 billion.[229]

### 6.2.2 *Players and behaviour*

In 2016, the research firm Intraval conducted a survey in which they asked a large and representative consumer panel of people 16 years of age and older (N = 5,873) about their gambling behaviour.[230] The results revealed that 54.4% of the respondents had participated in lotteries in the year prior to the survey (excluding scratch cards), and 9.5% had bought scratch cards for themselves in the previous year. For the Dutch population 16 years of age and over, this represents some 7.6 million recent participants in lotteries and approximately 1.3 million scratch-card purchasers. In line with the large number of participants, lottery players are a fairly good reflection of the population in terms of characteristics. Scratch-card purchasers are somewhat younger than average.

The average expenditure of respondents who had participated in the lottery within the 30 days preceding the survey was €23. For scratch cards, it was €4. For the population as a whole, this corresponds to an annual expenditure of €2.1 billion on lotteries and €64 million on scratch cards. Spending on lotteries and scratch cards is fairly evenly distributed (e.g. as compared to spending on casino games and gaming machines). Respondents to the Intraval survey who identified themselves at-risk or problematic players spent, on average, almost the same amount per month on lotteries as recreational players did, with individual outliers spending up to a maximum of €82. On average, problematic players spent more on scratch cards than recreational players did: €22, as opposed to €3 per month, with individual outliers up to €50 (the absolute amounts are limited in this case as well).

### 6.2.3 *Risks to public interests*

The *risk of addiction* in lotteries is low, particularly due to the aforementioned long period that elapses between ticket purchase and pay-out and to the lack of the possibility of playing continuously and at high frequency.[231, 232] Some amount of risk

228 In addition, municipalities can grant licences for small-scale lotteries with prize pools of up to €4,500, and no licences are required for promotional games of chance (under certain conditions).
229 *Marktscan landgebonden kansspelen 2018*, par. 3.3.1.
230 A. Kruize, M. Boendermaker, M. Sijtstra, B. Bieleman (2016). *Modernisering Kansspelbeleid. Nulmeting 2016.* Intraval/WODC, Groningen/The Hague.
231 For the national lottery and the Lotto games, players can buy tickets shortly before the draw. After that draw, however, a long time will elapse before the next draw takes place. At Lucky Day, there is a daily draw.
232 M. Griffiths, J. Derevensky, The liberalisation of the lottery market in the Netherlands: A report on potential psychosocial impacts and how to minimise harm. Assissa (2017).

is nevertheless entailed in the high jackpot/major prizes, the very wide availability through many points of sale and the relatively high odds of winning small prizes.[233] Scratch cards carry a somewhat higher risk of addiction, largely because they allow players to see immediately after purchase whether they have won and, if desired, to move on to a new round of play.[234] In practice, however, few Dutch people are addicted to scratch cards.

This picture fits well with the relatively low number of at-risk and problematic players amongst lottery participants and scratch-card purchasers. To the extent that at-risk and problematic players do play lotteries or buy scratch cards, they also tend to participate in games of chance with a higher risk of addiction.[235] Lotteries are thus unlikely to be the cause of risky or problematic playing behaviour.

Greater risks exist with regard to the public interest in *consumer protection*. For example, lotteries and scratch cards have prize packages that are difficult to compare, and the underlying odds are difficult for most people to fathom. Given that players have little if any insight into the pay-out rate and the fairness of the draws, lotteries provide an excellent example of trust goods. Operators can mitigate this situation by paying out many small prizes, such that the odds of winning remain considerable and players can see that they actually are winning.

The fine print on subscriptions (e.g. the conditions for termination or the practice of paying out prizes according to the number of months of participation during the first year of subscription) may also lead to a lack of transparency. Another potential risk – similar to that of banks – is that a lottery operator will walk away with the ticket-sales revenue. To date, this has not occurred in practice.

Consumer failure also plays a role. As addressed in Section 4.4.1, consumers tend to over-estimate small odds, and this can be an important factor in lottery-playing behaviour (either with or without a subscription). Lottery operators can feed these misconceptions by identifying winners with whom prospective players can identify.[236]

Lotteries also have game concepts that take advantage of the phenomenon of 'regret aversion', as known from modern behavioural economics: people tend to

233 D.E. de Bruin (2017). *Assessment verslavingsgevoeligheid Nederlandse kansspelaanbod*, The Hague/Utrecht: Kansspelautoriteit/CVO – Research & Consultancy.

234 A scratch card can also be regarded as a 'paper' slot, the result of which has already been fixed but has not yet been revealed. If scratch cards could be 'scratched' online, the distinction from online slot machines would be blurred, and such digital scratch cards would be best regulated in a manner similar to that used for online casino games.

235 Within the adult population, the prevalence of at-risk players is 0.69%, and the prevalence of problematic players is 0.57% (Section 4.5.1). For lotteries, these percentages are 0.9% and 0.6%, respectively, as compared to 1.2% and 2.0%, respectively, for scratch-card purchasers. Only one in four of the at-risk and problematic players reported having played only lotteries or scratch cards in the previous year. *Marktscan landgebonden kansspelen 2018*, par. 3.5.1.

236 Consumer law is based on the principle of 'Let the buyer, beware'. In practice, there is sometimes a fine line between permissible exaggeration or suggestion and prohibited deception.

avoid situations in which they are likely to experience regret. The thought of missing out on a street prize by not participating in the Postcode Lottery, while the rest of the neighbours on the street are celebrating, can lead to additional participation in order to avoid future regrets. In such cases, no deception is needed, given that human weaknesses are involved.

Economies of scale and network effects may lead to market concentration or even monopolies in lotteries (Section 4.7.2). In most cases, monopolies do not benefit consumers, as market concentration leads to higher costs, reduced innovation and a lower level of customer-friendliness.

The public interest in *fighting crime and illegality* is limited, as is that of gambling addiction in lotteries. Although illegal lotteries are a possibility, they play only a limited role in practice. The skewed distribution of the prize pool in lotteries and the low probability of winning the grand prize or jackpot also restricts the risk of money laundering in lotteries, unless the lottery operators themselves are acting in bad faith and manipulating the pay-out of prizes. There is also a theoretical risk that criminals will try to buy winning lottery tickets at an amount exceeding the prize to be paid out in order to fake a legal source for their money. Based on existing knowledge, such situations hardly ever occur in the Netherlands.

### *6.2.4 Market organisation and regulation*

As outlined in Section 6.2.1, the organisation of the lottery market was determined by the Betting and Gaming Act: monopoly licences for the national lottery, lotto and instant lottery, with an open system for charity lotteries. In addition, there are different rules for each type of lottery, including the number of draws per year, with the prohibition of pooling acting as a threshold for potential entrants to charity lotteries. In practice, these and other rules effectively limit competition between the operators of different lotteries, even though consumers often perceive them as substitutes for each other.

The current organisation of the lottery-licensing market stems from the historical policy notion of using restrictive supply to channel the desire to play, and it is legally consistent (see Sections 2.5 and 5.4). Based on the contours of the future lottery system outlined by the Minister in 2019 – aimed at consumer choice and channelling towards a legal, appropriate and attractive supply – in the future, the public interest may be safeguarded through a market organisation that does not involve legal monopolies and state participation for lotteries.

In the case of lotteries, gambling addiction, crime and illegality pose only a limited risk, and consumer protection is the most important public interest (as noted in Section 6.2.3). It is largely because of the fairness of the game and the transparency of the rules of the game and the prize package that it remains necessary to maintain

and, where necessary, unify and modernise existing regulations aimed at transparency, thereby tackling misleading advertising and subscriptions that are difficult to cancel, while monitoring the fairness of draws and the financial stability of operators.

Scratch cards (and, possibly, daily lottery draws) theoretically have a higher risk of addiction than is the case with lotteries that have weekly or monthly draws. In practice, however, the number of addicted scratch-card players in the Netherlands is low, despite a widespread network of physical outlets for scratch cards. It is therefore reasonable not to restrict the number of scratch-card licences in the future, but to safeguard the public interest by regulating and supervising the outlets (e.g. strict age controls, as in the case of alcohol and tobacco).

It is also useful to make a distinction between online ordering and home delivery of physical scratch cards (as is now also possible under the e-commerce provision of the instant lottery license) and 'digital scratching'. The latter type of game is currently not allowed, due to its high gaming frequency and risk of addiction. Once the Remote Gambling Act has entered into force, therefore, digital scratching could best be regulated as an online game of chance.

Within those frameworks, healthy competition and the free entry and exit of lottery operators can guarantee an attractive supply and innovation. In addition, as is the case for operators of games of chance with a higher risk profile (e.g. gaming machines and online gambling) a profit motive does not necessarily pose any additional risk to the public interest. A ban on for-profit lotteries would constitute a barrier to entry, and it would unnecessarily hamper efficient entrants.

For the same reasons, from the perspective of consumer interest, it should also be desirable to continue to allow lottery operators to pool their jackpots with participants playing in the same lottery in other countries (see Section 4.7.2).[237] This would allow entrants to offer an attractive jackpot from the outset.

One point of concern in this regard is that many European countries do not allow pooling except for their own monopolists (in many cases, the state), with little or no room for new entrants. As a result, pooling would allow foreign lotteries to enter the Netherlands from within their own protected home markets. For the time being, therefore, the playing field within Europe is not level. A more detailed calculation is thus needed in order to determine the extent to which the benefits of pooling for consumers in the Netherlands outweigh the possible unequal competition with existing lottery operators.

237 The charity lotteries have an exceptional policy rule prohibiting pooling. For Lotto games, pooling is allowed for the horse totaliser and, in the future, for online poker pooling.

The government has announced its intention to modernise the laws and regulations governing lotteries.[238] In line with the vision on market organisation and regulation set out above, the contours of a modernised lottery system outlined by the Minister for Legal Protection can be used to shape a legal and policy framework that does justice to the channelling function of lotteries, as well as to the valuable social contribution of lottery proceeds, as described in Section 4.6.3. The policy-based desire for a level playing field is also in line with the vision presented in this document.

As noted in the introduction to this section, the vision on the organisation and regulation of the lottery market described here outlines a possible 'blueprint'. Any transition to such a 'final image' is likely to be a complex operation for all sub-markets. For lotteries in particular, however, it would require careful organisation and regulation, given the current state participation and the relationship between lotteries and philanthropy.

For the possible redesign of the lottery market, various scenarios have been calculated based on financial consequences to the state treasury and charities.[239] A number of scenarios specifically calculate the consequences of a uniform market with contribution rates of 0%, 25% or 50%. A high future minimum contribution rate would be likely to increase contributions to charities, although it would also be likely to decrease consumer surplus, as less prize money would be left over. The additional tools for stimulating philanthropy mentioned in Section 4.6.5 have not been included in the calculations.

## 6.3 Sports betting

In the following sub-sections, we discuss the sports-betting sub-market – for both physical and online sales channels – in terms of the supply, the players and their behaviour, the risks to specific public interests and the most likely scenario of market organisation and regulation. We specifically address any differences in distribution channels (physical or online) that could generate differences in risks or monitoring possibilities.

### *6.3.1 Operators and supply*

Betting is distinguished from other games of chance by the fact that the events that determine the prizes are not under the control of the gaming operator. In many cases, betting has to do with sports results. In the Netherlands, betting on e-sports results and other uncertain events is not permitted. As indicated in Section 5.2.1, this form of betting (i.e. event betting) is prohibited in the Netherlands, due to the difficulty of controlling the integrity of the betting events (see also Section 6.3.3 below).

238 *Parliamentary Papers II*, 2018/2019, 24557, 152.
239 *Parliamentary Papers II*, 2016/2017, 24557, 146, blg-816659.

At present, two license holders are allowed to operate sports betting in the Netherlands. One monopoly licence is for all wagers on sports events, except those in horse racing and trotting. This licence is held by *Lotto B.V.*, under the name '*Toto*', which is a state holding, as a subsidiary of *De Nederlandse Loterij*. The other monopoly licence is for betting on horse racing and trotting events: the 'Totalisator'. It is operated by *ZEbetting & Gaming Nederland B.V.*, under the name '*ZEturf*'. The combined turnover of the two operators was €224 million in 2018, with almost 90% coming from *Toto*. In 2019, the turnover of *Toto* increased sharply.[240]

To date, online sports betting has been prohibited in the Netherlands.[241] However, the licences for *Toto* and the Totalisator contain e-commerce provisions, under which certain wagers can also be taken online. As is also the case in neighbouring countries, this sales channel is becoming increasingly popular in the Netherlands. Once the Remote Gambling Act has entered into force, the online market will be opened to an indefinite number of license holders. The possibility of e-commerce for country-specific betting will then lapse, and all wagers made online will be subject to online regulation.[242]

Together with the lotto games, *Toto* must pay out at least 47.5% of all betting turnover as prizes. In 2018, the pay-out rate for *Toto* was 81%. Of all contributions (after deducting prizes and costs), the net game result (72.46%) must be paid to the NOC*NSF, with the remaining share (27.54%) being paid to the ALN. In practice, this payment is limited to less than 10% of all betting turnover, given the high pay-out rate. At least 2.5% of the Totalisator's turnover must be donated to causes that promote horse racing and trotting in the Netherlands. Although there is no minimum pay-out rate, also it is high compared to that of lotteries, amounting to approximately 76% in 2018.[243]

Given that the outcome of sporting events is uncertain, but not arbitrary (in contrast to casino games and lotteries), the pay-out of the various wagers (i.e. the quotas) depends on the expected odds. As a result, the pay-out for more improbable outcomes (e.g. a weaker football team beating a stronger opponent) can increase significantly. Unlike in lotteries, however, extreme prizes amounting to thousands of times higher than the wager, do not occur. The time between betting and pay-out can be short. In the case of online operators, which are currently not permitted in the Netherlands, it is still often possible to place bets during a match (i.e. live betting), with the ratings shifting throughout the course of the game.

240 *Nederlandse Loterij* (2020). *Jaarverslag 2019. Waarde creëren door sterk samenspel.*

241 This does not alter the fact that there is an extensive illegal supply of online betting (amounting to approximately €165 million in 2019), against which the Kansspelautoriteit is taking enforcement action based on prioritisation criteria.

242 It also changes the base for the gambling tax: for land-based bets, the base remains at 29% of the prize, with an exemption of €449. For online gambling, the gambling tax will be 29% of the provider's gross gaming result.

243 *Marktscan landgebonden kansspelen 2018,* par. 4.3.1.

### 6.3.2 *and behaviour*

In 2016, the research firm Intraval conducted a survey in which they asked a large and representative consumer panel of people 16 years of age and older (N = 5,873) about their gambling behaviour.[244] The results revealed that 2.4% of the respondents had participated in sports betting in the year prior to the survey, using a betting form, betting kiosk or the internet; 0.5% had bet on horse races (in betting shops or tobacconists, at race courses or on the internet) in the previous year. For the Dutch population 16 years of age and older, this represents about 350 thousand recent participants in sports betting and about 70 thousand participants in betting on horse races. Participants in sports betting are relatively young, with an average age of about 35 years, and almost 80% are male. Betting on horse racing attracts a somewhat older target group that is similar in age to that of lotteries and bingo, with almost 60% being men.

The average expenditure of respondents who had participated in sports betting within the 30 days preceding the survey in 2016 was €15, and that of those who had participated in betting on horse races was €25.[245] This corresponds to an annual expenditure of some €60 million on sports betting and €20 million on betting on horse events. In view of the total investment of €224 million by *Toto* and the Totalisator in 2018, and given the fact that many people play through online operators who are not (or not yet) licensed in the Netherlands, this figure seems to be an underestimate. It should be noted, however, that the *Toto* investment increased sharply after 2016.[246]

Expenditures on these games are not evenly distributed. The majority of players spend much less than the average, while a few spend significantly more. For this reason, we assign weights to individual players in proportion to their own expenditures (see Section 4.2.4). Translated into figures, the Netherlands has about 60,000 actual sports-betting players and about 10,000 actual horse-racing bettors.

### 6.3.3 *Risks to public interests*

Sports betting is associated with a relatively high risk of addiction. Compared to a share of 0.69% for at-risk players and 0.57% for problematic players within the adult population as a whole (see Section 4.5.1), these percentages are 5.8% and 7.5%, respectively, for participants in sports betting and 7.4% and 0%, respectively, for betting on horse events.[247] These percentages are significantly higher than those for lotteries, and they are even slightly higher than those for casino games.

244 A. Kruize, M. Boendermaker, M. Sijtstra, B. Bieleman (2016). *Modernisering Kansspelbeleid. Nulmeting 2016.* Intraval/WODC, Groningen/The Hague.
245 A. Kruize *et al.* (2016), p. 15.
246 *Marktscan landgebonden kansspelen 2018,* par. 4.2 and 4.5.3.
247 *Marktscan landgebonden kansspelen 2018,* par. 4.5.1. In particular, the percentages and expenses for horse racing are surrounded by relatively large uncertainties, due to the small number of participants compared to other games of chance.

The relatively high risk of addiction associated with sports betting is related to the potentially high turnover and continuity, as well as to the probability of profit and the wide availability.[248] Another possible factor is the phenomenon of self-over-estimation (as discussed in Section 4.4.2). More specifically, it is tempting for players to think that they know more about a sport or their favourite team than 'the market' does, and that they should therefore be able to win. In practice, this is obviously quite difficult, not only because of the margins of the operators, but also because the quotas generally change in response to new information emerging before the start of a match and the betting of players up to that point. In this way, the knowledge and current expectations of the market are actually reflected in the quotas.

The pay-out rate of sports betting (primarily online) is quite similar to that of casino games and gaming machines. The risk of money laundering is much lower, however, due to the more limited share of cash involved in online sports betting. For land-based sports betting, the proportion of cash involved, in combination with the anonymity of players, may pose some risk of money laundering. This risk is currently limited by the fact that the gambling tax levied on prize money is 30.1%, with an exemption of €449. This makes large cash wagers attractive to only a limited extent. If the gambling tax were to be levied on the operator's gross gaming income (which would be preferable from the perspective of efficient tax collection), the pay-out rate could rise above 95%. In this case, anonymous cash or cryptocurrency transactions would no longer be prudent, and it would be wise to impose non-anonymous digital transactions at points of sale.

One important potential risk related to both consumer protection and the fight against crime is related to insider information and match-fixing. It is precisely because the events involved in sports betting are not under the control of the operator that they can be manipulated. For example, this could be done by extracting information from athletes about their physical condition and adjusting the stakes accordingly. Players or referees can also be bribed or blackmailed into manipulating matches.

In the case of sports betting 'against the house' (e.g. betting with quotas determined by the operator), operators have a strong incentive to closely monitor indicators of match-fixing (e.g. suspicious betting patterns). For example, if an underdog wins against a favourite as a result of match-fixing, and if the wagers on this match are unusually high, the operator of the betting service will incur a financial loss. Conversely, in the case of betting on group sports (e.g. a totalizator or a betting exchange), the operator does not run any financial risk, regardless of the outcome of the match.

248 D.E. de Bruin (2017). *Assessment verslavingsgevoeligheid Nederlandse kansspelaanbod,* The Hague/Utrecht: Kansspelautoriteit/CVO – Research & Consultancy.

Other risks related to classic market failures are limited within the context of sports betting. Based on experience in foreign markets, the provision of sports betting is well suited to competition that is not dominated by scale effects and natural monopolies. There is nevertheless a tendency for the quotas of different operators to be close to each other. Otherwise, the market would allow room for placing a combination of wagers with different operators in order to win regardless of the outcome. Operators would prefer to avoid such arbitrage, and they are therefore likely to keep an eye on each other, without this being seen as a collusion under competition law.

### *6.3.4 Market organisation and regulation*

As outlined in Section 6.3.1, the organisation of the market for physical and online sports betting was determined by the Betting and Gaming Act: monopoly licences for *ZEbetting & Gaming Nederland B.V.* and the state participation *Lotto B.V.* Once the Remote Gambling Act has entered into force, this will be supplemented by a theoretically indefinite number of licence holders for online sports betting.

The current monopolies of the aforementioned land-based sports-betting services stem from the historical policy notion of using restrictive supply to channel demand (see Section 2.5). Based on the most recent Cabinet vision, which allows more room for an appropriate, attractive supply and free entry into the online market, in the future, the public interest may be safeguarded through a market organisation that does not involve legal monopolies and state participation for sports betting.

As argued in the previous section, in both the physical and the online forms of sports betting, the most pressing public interests are in preventing addiction and fighting crime and illegality (or match-fixing), which cannot be safeguarded without government intervention. In view of the highly similar game characteristics and risks, a uniform market organisation for physical and online betting would be appropriate, albeit with differences in the emphasis of specific regulations to do justice to the differences in physical and online risks. With this in mind, it would make sense to harmonise future state intervention in physical and online sales channels, in accordance with contemporary laws and regulations on remote gambling.

With regard to the organisation of the market, the opening up and expected growth of the online market is also in keeping with the liberalisation of the market in land-based betting, which will make it possible for the monopoly character to be eliminated. It would also be appropriate for the government to relinquish its role as a shareholder. Without restrictions on the number of land-based licences, however, it will remain important to continue to safeguard public interests through the regulation and supervision of points of sale (e.g. age verification, digital payments

and registration of gambling behaviour). The dichotomy between betting on horse racing and trotting and other betting could then be eliminated. The availability of two parallel systems of betting would also allow operators to apply for two licences, which would be equivalent to a single umbrella betting licence.

In view of the relatively high risk of addiction within the context of sports betting, regulation and supervision with a view to preventing addiction (including play limits, CRUKS and the registration of playing behaviour) are important, particularly in the online market, where the turnover rate is higher. The registration of gambling behaviour combined with electronic means of payment would also mitigate the potential risk of money laundering associated with land-based sports betting.

Adequate monitoring of match-fixing – which often takes place outside the scope of betting operators – requires that operators can share suspicious betting patterns with each other and investigative authorities, taking into account privacy and confidentiality provisions regarding personal data and the supervision of money laundering. Examples of these bodies include the *Nationaal Platform Matchfixing* (National Match-fixing Platform), the consultation group on matchfixing (‘*signalen-overleg*’) and the Sports Betting Intelligence Unit at the *Kansspelautoriteit*.

A modernised betting system requires a legal and policy framework that does justice to the channelling function of betting, as well as to the valuable contributions made by sports-betting payments (as described in Section 4.6.4). This is also the case for payments for horse racing and trotting (see Section 4.6.4). More so than in the case of lotteries, however, high betting payments are at odds with the attractiveness of the supply.

As noted in Section 6.2.4, the aforementioned vision on the organisation and regulation of physical and online sports betting outlines a possible ‘blueprint’. Any transition to such a ‘final image’ is likely to be a complex operation for sports betting as well. It would require additional attention and calculations, due to the intrinsic risks of this supply, the current state participation and the contributions to sports-related charities and the horse racing and trotting community.

## 6.4 Casino games and slot machines (physical and online)

In the following sub-sections, we discuss the sub-market for casino games and slot machines – for both physical and online sales channels – in terms of the supply, the players and their behaviour, the risks to public interests and the most likely scenario of market organisation and regulation. We specifically address any differences in distribution channels (physical or online) that could generate differences in risks or monitoring possibilities.

### 6.4.1 Operators and supply

Casinos are locations that are open to the public, where players can try their luck at casino games or slot machines.[249] This is often combined with luxurious hospitality and entertainment. For example, Holland Casino had for years carried the slogan *'the best place to go out'*. In internationally renowned gambling locations (e.g. Las Vegas and Macau), this image goes even further, with the extensive integration of casinos with hotels and shopping centres. In these integrated resorts, the hospitality and entertainment sectors even contribute a similar share of turnover to games of chance.

The best-known examples of casino games are roulette, blackjack and poker. In addition, casinos in the Netherlands and elsewhere in the world also offer a variety of other *table games*.[250] Casinos also have slot machines (e.g. the famous 'fruit machines' and 'one-armed bandits') and their more modern manifestations.

Casino games are characterised by a high pay-out rate per round (often between 95% and 99%) and a high turnover rate. The time between ticket purchase and pay-out is short, and countless rounds can be played in a single evening, thereby cancelling out the high pay-out rate per round over time. In addition, the wagers in each round can be higher in casino games, as compared to those in other games of chance. Slot machines in casinos also have a high pay-out rate (more than 90% in the Netherlands) and a high turnover rate.[251]

In the Netherlands, the operation of casino games at a physical location (i.e. in a casino) is currently reserved exclusively for Holland Casino – a public limited liability company that is 100% owned by the state. According to its licence under Title IVb of the Betting and Gaming Act, Holland Casino may operate 14 gaming locations. In 2019, the gross gaming result obtained from table games led by a croupier amounted to €289 million, as compared to a gross gaming result of €384 million from slot machines. Gambling tax of 30.1% is paid on the total gross gaming result (€202 million in 2019). The result before corporate income tax amounted to €90 million in 2019.[252]

In addition to casinos, slot machines may also be installed in amusement arcades and high-threshold hospitality establishments. In the latter two types of venues, however, slot machines are subject to restrictions in terms of maximum throw-in

249 The Betting and Gaming Act refers to 'casinos', 'casino games', 'slot machines' and 'amusement arcades'. For the sake of readability, this document often uses the popular terms 'casinos', 'table games', 'slot machines' and 'halls'.
250 The 1996 Decision on Casino Games provides an exhaustive list of 13 casino games.
251 *Marktscan landgebonden kansspelen 2018*, par. 6.4.3.
252 Holland Casino, *Annual Report 2019*.

per round, playing speed and average hourly loss.[253] These restrictions and the prohibition on operating table games with a croupier do not prevent some operators of amusement arcades from using the name 'casino' (which is not protected) and from creating a luxurious ambiance (just like Holland Casino). In addition, some arcade machines offer players an electronic and automated version of croupier-operated table games (e.g. roulette and blackjack). It is not permitted to install arcade machines that mimic poker or similar player-on-player games.

Slot machines currently require three licences: a model licence for the type of machine, an operating licence for the owner of the machines and a gaming-machine permit for the owner or lessee of the location where the machine is installed. The latter permit is not issued by the *Kansspelautoriteit*, but by the municipality, which may also impose additional requirements on the opening hours of amusement arcades and the minimum age of visitors. In addition to these permit requirements, the market for slot machines has a theoretically indefinite number of suppliers, but municipalities can choose to limit or completely exclude the number of amusement arcades, thereby influencing the organisation of the market at the local level.

Despite the aforementioned restrictions in relation to casino machines, these amusement arcade and hospitality machines together significantly outnumber the slot machines at Holland Casino, in terms of both players' seats and gross gaming results. In 2018, there were 29,133 players' seats in amusement arcades and 16,233 in hospitality establishments, as compared to 6,490 at Holland Casino. Nearly 90% of all players' seats are located outside Holland Casino, and almost 75% of the population lives within a distance of less than 10 kilometres of one of the approximately 270 amusement arcades in the Netherlands.[254] The combined gross gaming result for slot machines in amusement arcades and hospitality establishments amounted to €763 million in 2018. Together with the casino machines at Holland Casino, the gross gaming result exceeded €1.1 billion in that year.

To date, online casino games and their online counterparts have not been permitted in the Netherlands.[255] In addition, the licences for Holland Casino and the operators of slot machines do not contain any e-commerce provisions. This is due in part to the fact that the Betting and Gaming Act of 1964 does not provide sufficient supervisory powers to ensure the adequate supervision of such risky games of chance through

253 The rules for gaming machines in amusement arcades and hospitality establishments differ slightly from those that apply to gaming machines in casinos on a number of points. For example, the minimum percentage pay-out is lower (at least 60% for arcades/hospitality, as compared to at least 80% for casinos). In practice, however, this requirement is apparently not decisive, instead serving more as a safety net. The percentage pay-out for machines in arcades/hospitality establishments is around 80%, as compared to more than 90% in Holland Casino. The maximum throw-in per game is also lower, and the pay-out is capped at 200 times the bet. *Marktscan landgebonden kansspelen 2018*, par. 6.1-6.4.

254 *Marktscan landgebonden kansspelen 2018*, p. 71.

255 This does not alter the fact that there is an extensive illegal online supply (valued at approximately €165 million in 2019), against which the Gaming Authority is taking enforcement action based on prioritisation criteria.

online distribution channels. Once the Remote Gambling Act has entered into force, the online market will be opened up to an indefinite number of licence holders. Licence applicants are nevertheless required to pass a comprehensive test, and are subject to strict licensing requirements once they have been granted a licence (see Section 5.6).

After opening the market online, casino games (e.g. roulette, blackjack, bingo and poker) will therefore no longer be restricted to a branch of the Holland Casino – consumers will be able to play at home or using mobile devices. The same will apply to playing online 'fruit games', which are currently allowed only on gaming machines in casinos, amusement arcades or hospitality establishments.

### *6.4.2 Players and behaviour*

In 2016, the research firm Intraval conducted a survey in which they asked a large and representative consumer panel of people 16 years of age and older (N = 5,873) about their gambling behaviour.[256] The results revealed that 5.5% of respondents had participated in casino games (excluding poker) or had played them on a vending machine or the internet in the year prior to the survey; 3.2% had played poker on location or on the internet, and 6.2% had played on a gaming machine (excluding blackjack or roulette machines) in a casino, amusement arcade, hospitality establishment or on the internet. In the Dutch population 16 years of age and older, there were more than 750,000 table players, 400,000 poker players and 900,000 gaming-machine players. The players were predominantly male, with an average age of around 30 years.

The average expenditure of participants who had played casino games within the 30 days preceding the survey in 2016 was €32; that of poker players was €23, and that of machine players was €61.[257] The total expenditures in 2016 were €1.1 billion, which is relatively comparable to the gross gaming result of Holland Casino and the slot machines in amusement arcades (€1.4 billion in 2018).

The distribution of expenditures on these games is highly uneven. The majority of players spend much less than the average, while a few spend much more. The average amount per player is therefore not a representative measure of the intensity of play. By assigning weights to individual players in proportion to their own expenditures, we arrive at the effective number of players (see Section 4.2.4). Based on these figures, the Netherlands has about 40,000 effective casino-game players, approximately 10,000 effective poker players and about 30,000 effective gaming-machine players. Dividing the total gross gaming result of Holland Casino amongst the 40,000 effective casino players, this corresponds to an average annual expenditure of approximately €15,000 per effective player (€1,250 per month).

256 A. Kruize, M. Boendermaker, M. Sijtstra, B. Bieleman (2016). *Modernisering Kansspelbeleid. Nulmeting 2016*. Intraval/WODC, Groningen/The Hague.

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### 6.4.3 Risks to public interests

The product characteristics of casino games and gaming machines (e.g. the high turnover rate, fast pay-outs and the versatile range of games on offer make casino games highly addictive, as compared to most other games of chance. This is evidenced by an analysis of the characteristics of the game,[258] as well as by the number of risk and problematic players. With a prevalence of 0.69% at-risk players and 0.57% problematic players amongst the adult population (see Section 4.5.1), these percentages are 4.6% and 4.9%, respectively for casino players, and 4.6% and 3.8%, respectively, for poker players.[259]

Vending machines are similar to casino games in terms of their susceptibility to addiction. Based on the characteristics of the game, they are the riskiest. Comparable to casino games and poker, 4.6% of all vending-machine players could be identified as at-risk players, and 3.8% are problematic players. Although this accounts for only a small minority, the percentages are considerably higher than they are in the population as a whole (e.g. for lottery or bingo players).

The difference in the nature of the risk of addiction associated with casino games and that associated with gaming machines operated physically and online is primarily due to the much higher gaming frequency, combined with the broader availability and accessibility, and less social control in online gaming environments. At the same time, however, full insight and control is possible online. In comparison, physical playing locations are relatively accessible, and the pace of play is lower (especially in table games with croupiers).

Although games of chance on location are likely to involve both social control and group pressure, the presence of expert personnel ensures that there is someone who can address players in a timely manner if their playing behaviour is no longer recreational. For remote games of chance, the lack of social control when playing 'in the attic' can encourage inappropriate playing behaviour. Within this context, compulsory playing limits and the permanent possibility of self-exclusion (e.g. the Central Register for Exclusion of Players of Chance, CRUKS) are important tools.

The ability to closely monitor online gaming behaviour at the level of individual players also provides operators with important tools for preventing addiction (from the perspective of the operator, as well as from that of the regulator). At the same time, however, players may be able to stay under the radar if they play with multiple operators, and player data of different operators cannot be linked by the supervisor (e.g. due to privacy legislation).

258 D.E. de Bruin (2017). *Assessment verslavingsgevoeligheid Nederlandse kansspelaanbod*, The Hague/Utrecht: Kansspelautoriteit/CVO – Research & Consultancy.
259 *Marktscan landgebonden kansspelen 2018*, Table 20.

Despite the differences in the *nature* of the addiction risks associated with the physical and online offerings described above, it is not a foregone conclusion that the two distribution channels actually differ in terms of the *level* of addiction risk, once the differences in regulation have been taken into account. As indicated by the extensive subordinate legislation on remote gambling (see Section 5.6), the legislature intended to err on the side of caution and mitigate in advance the impact of the identified risks of online gambling. On balance, therefore, it is quite possible that the addiction profiles of regulated online games of chance will ultimately not differ from those of the currently regulated land-based casino games and gaming machines. This could be a topic of investigation during the planned interim evaluation of the Remote Gambling Act.

In addition to the obvious importance of preventing addiction in casino games and gaming machines, several aspects of these games are important from the perspective of consumer protection, specifically with regard to mitigating information problems relating to the fairness of the games/equipment on offer, the odds of winning and the pay-out rates. The fairness of games is guaranteed by inspections and assessment reports.

The public interest in fighting crime and illegality is relevant to casino games and slot machines as well. Due to their high pay-out rate, the high turnover rate and the cash intensity, casino games are the most suitable of all games of chance for money laundering and related crime.

Compared to the more capital-intensive production of gaming machines and online gambling, a table game in a casino is relatively labour-intensive. Particularly in light of the low stakes and playing speed, the total 'rake' per hour does not outweigh the wages of the croupier. Because there is apparently a demand for games with relatively low wagers (e.g. poker and bingo), there is a limited but persistent supply of illegal poker tournaments and bingo nights for which the labour involved is less expensive than is the case in the branches of Holland Casino.

### *6.4.4 Market organisation and regulation*

As outlined in Section 6.4.1, the organisation of the market for physical and online casino games and slot machines was determined by the Betting and Gaming Act: a monopoly licence for Holland Casino, a hybrid licensing system for gaming machines with a theoretically indefinite number of licence holders and opportunities for municipalities to influence the organisation of the market at the local level. Once the Remote Gambling Act has entered into force, it will also allow an indefinite number of licence holders operating online versions of casino games and machines.

The current market organisation of the aforementioned games stems from the historical policy notion of using restrictive supply to channel demand (see Section

2.5). Based on the most recent Cabinet vision, which allows more room for an appropriate, attractive supply and free entry into the emerging online market, in the future, the public interest may be safeguarded through a market organisation that does not involve any statutory monopoly and state participation for casino games.

As argued in the previous sub-section, in the case of casino games and slot machines (both physical and online), the prevention of addiction and money laundering are the salient public interests that cannot be safeguarded without government intervention. Because of the similar game characteristics and risks, a uniform market organisation for physical and online casino games and gaming machines is logical. Despite differences in emphasis between physical and online risks, it would also make sense to harmonise the regulations of the two market segments to correspond to the contemporary regulation of remote gambling. One option would be to allow betting terminals, in order to channel demand away from the illegal betting terminals described in Sections 4.6.2 and 5.2.

With regard to the organisation of the market, the opening up and expected growth of the online market is also in keeping with the liberalisation of the market in land-based casinos with table games, which will make it theoretically possible for the restriction on the number of establishments to be eliminated, with the granting of establishment licences becoming a municipal matter, as is currently the case with amusement arcades. The withdrawal of the state as a shareholder would also be appropriate (see Section 5.3). As indicated by the market analyses cited in Section 4, this would not lead to the creation of a 'Las Vegas on the Rhine', as there is room for at most around 10 additional casinos similar in size to Holland Casino.[260]

The segmented laws and regulations have *de facto* established the relationship between labour and capital on the supply side (croupiers and buildings versus websites and software or, in the case of gaming machines, hardware). Regulations that are segmented according to such factors of production will eventually lead to rigid or inefficient supply in response to technological developments. In the long run, that supply will become less attractive to changing consumer needs, and it will no longer contribute to channelling, improvements in the safeguarding of public interests or the health of the sector.

In terms of regulation, harmonising the playing field for online and land-based gaming machines would require a comprehensive programme of addiction prevention, monitoring of individual gambling behaviour and the systematic enforcement of the age limit of 18 years. All operators of casino games and gaming machines at physical locations should comply with the same level of duty of care, including connection to CRUKS and the monitoring and addressing of problematic playing behaviour.

260 Tieben, B., Baarsma, B., Poort, J., de Goeij, M., Smits, T., Rosenboom, N. and Hof, B., 2012. Speelruimte: naar een nieuwe marktordening van de land-based kansspelmarkt. SEO-report 2012-55.

This level of duty of care should also apply to hospitality establishments. This would disrupt the anonymity of playing on vending machines – which is a risk factor for addiction and money laundering – and create a level playing field in terms of supervision for the market as a whole with regard to addiction-sensitive casino games and gaming machines.

To this end, it is necessary to modernise the current regulations on gaming machines in such a way that the technology that is already in use in other countries (e.g. machines that can be monitored and controlled remotely) also becomes the standard for Dutch amusement arcades and hospitality establishments where players can spend extended periods.[261] This would also allow for hybrid constructions (e.g. online games at physical operators). This would ensure that justice could be done to both the historical investments that have been made in the existing physical machines and the necessary protection of players. Such a market would allow room only for highly accessible gaming facilities that are able to offer the desired level of addiction prevention and consumer protection.

As discussed in Section 5.4, the compulsory levies for the Addiction Prevention Fund and those ordered by the Money Laundering and Terrorist Financing (Prevention) Act (*Wet ter voorkoming van witwassen en financieren van terrorisme* or Wwft), which Holland Casino currently pays (and which online operators will have to pay once the Remote Gambling Act has entered into force) are well suited to the risks relating to the public interests mentioned above. This will also require an active role for operators in addressing at-risk and problematic players. Such interventions are also in line with the risks associated with other gaming-machine operators.

The interests of addiction prevention and the prevention of money laundering are potentially at odds with the commercial interests of operators, such that proper enforcement will be required. Monitoring the fairness of the supply of games and gaming equipment and the provision of transparent information on the odds of winning and pay-out rates are also in the interest of all casino and gaming-machine operators.

The bill aiming to privatise Holland Casino, combined with a cautious expansion from 14 to 16 establishments and room for new license holders to join was withdrawn in 2019. The organisation of the casino market outlined here, which includes a theoretically indefinite number of operators, goes even further, albeit with additional regulations in order to curb the risks. One option would be to re-draw the blueprint after a few years, once it has been determined that the initial experiences with online gambling have not given rise to additional concerns. The revised blueprint should be in line with the necessary modernisation of the regulations for gaming machines.

261 Pwc, Uitkomsten onderzoek modernisering Speelautomaten besluit, 2015.

As noted in Sections 6.2.4 and 6.3.4, the vision of the organisation and regulation of land-based and online casinos and gaming machines presented above outlines a possible 'blueprint'. Any transition to such a 'final image' is likely to be a complex operation for all sub-markets. For casinos in particular, however, it would require additional attention, given the current state participation and the intrinsic risks of this supply.

## 6.5 Adjacent markets

Whether something is or is not a game of chance may seem obvious. In practice, however, this distinction can be problematic. For an extensive discussion on this subject, we refer to the Gambling Assessment Framework.[262] In the following sub-sections, we discuss three phenomena related to games of chance that exist at the peripheries of the regulatory domain of the *Kansspelautoriteit*: games of skill, games and financial products. The consumer risks associated with these products are similar, and their technological manifestations converge with those of games of chance. Transactions carried out in closed circles (e.g. betting pools on the Tour de France or card games played for money) are not regarded as games of chance by the Betting and Gaming Act, and they therefore fall outside the scope of this market vision.

### 6.5.1 *Chance versus skill*

*Case law*

In games of chance, participants cannot exert any predominant influence on the outcome of the game. Although this may seem obvious for some games of chance (e.g. lotteries, scratch cards, casino games and gaming machines), others (e.g. poker, sports betting) involve some form of skill. One relevant question concerns how the general description of 'predominant influence' should be interpreted. In the following paragraphs, we touch upon three important rulings from case law.

According to some participants, it was possible to play the roulette-like Golden Ten game profitably in the long run. The Supreme Court held that, in these exceptional cases, regardless of whether those participants were right, the operator would not offer the game unless the *general* participant would play at a loss, and that Golden Ten thus qualified as a game of chance.[263]

The Supreme Court also ruled that four specific variants of poker qualified as games of chance, despite the fact that they required a certain degree of skill.[264] Even if it can be demonstrated that a game has been played profitably by a few participants (professionals) over a long period of time, it does not necessarily mean that it is a

262 Beoordelingskader kansspelaanbod, Kansspelautoriteit (2018).
263 ECLI:NL:HR:1991:AD1447.
264 ECLI:NL:HR:1998:ZD0952.

game of skill. Only if the majority of participants (i.e. participants in general) can exercise a predominant influence on the designation of the winners can it be concluded that a game of skill is involved.[265]

As a result of this case law, which is now decades old, the demarcation between probability and skill is not always the greatest complication with regard to the supervision of games of chance. One question concerns whether the public interests outlined in the Betting and Gaming Act actually play a role for games in which the element of probability element outweighs the element of skill. Chocolate surprise eggs are an example of a game that is not associated with any compulsion to play. There might nevertheless be other examples (possibly online) in which this is less clear, and this grey area is in a state of flux (see also Section 6.5.2 below).

*Arcades and fairground machines*

There are two special cases for gaming machines: arcades and fairground machines. In the case of arcades, the player has an influence on the course of the game through skill and players cannot win anything except extended playing time or free games. If prizes can be won by any means other than skill, it is automatically a slot machine.

A fairground machine does not pay out money, but other forms of prizes (e.g. vouchers or goods in kind). These prizes may represent a value up to 40 times the wager. No operating licence is required for fairground machines. Municipalities determine where fairground machines may be set up. The exceptional position of fairground machines dates back to the time when fairgrounds were temporary (as in the case of the classic travelling fairground) or were established only in places where people stayed temporarily (e.g. amusement parks or holiday parks). The risk of contracting gambling addiction was considered small in such settings.

In addition to fairgrounds, fairground vending machines are often set up in 'amusement arcades': amusement centres in which games can be played for a fee. In addition to true games of skill (pinball), there are also modern fairground machines which, in addition to skill, also require a considerable element of luck (e.g. claw cranes or bulldozer machines). Such games can pose a risk of gambling addiction for minors. Due to their exceptional position (as mentioned above), it is not possible to supervise amusement arcades properly. The *Kansspelautoriteit* has therefore previously recommended eliminating the exceptional position of fairground machines.[266] This conclusion was confirmed in a recent investigation by the *Kansspelautoriteit* into amusement arcades with fairground machines.[267] The branch organisation Family Entertainment Centers Nederland (FEC Nederland)

265 ECLI:NL:HR:1965:AB5541 (Saturne).
266 *Parliamentary Papers II*, 2018/2019, 24557, 150.
267 Arcadehallen met kermisautomaten, onderzoeksrapport Kansspelautoriteit (2020).

has called on its members to eliminate all slot machines with games of chance from their arcades in due course. In the meantime, minors are not allowed to play vending machines with games of chance, and such machines will no longer be purchased.

### 6.5.2 *Games: Virtual prizes and addiction*

The aforementioned convergence of physical probability and skill with regard to gaming machines occurs pre-eminently online. Various digital games contain elements of both skill and gambling, and many games of chance also have a number of addictive features. In addition, there is a consumer risk that such games will also be extremely popular amongst minors and young adults, thus potentially bringing these vulnerable target groups into unwanted contact with gambling. The variety of games containing or surrounded by elements of gambling is large, and it is changing rapidly. Digital games that touch on gambling include *social casino games*, *fantasy sports, eSports* and *digital card games*.[268]

In the following paragraphs, we briefly discuss the supply and player populations of each of these forms, as well as the associated risks and a blueprint for the possible regulation of games containing elements of gambling. Games mentioned by name are for illustrative purposes only, without implying any legal (or other) opinion on individual games.

#### *Operators and supply*

*Social casino games* are online casino games that provide access to games of longer duration. If there is no prize to be won, *social casino games* should therefore not be considered games of chance. In some cases, however, there might be a paid-in deposit, possibly in combination with a free game offering fewer options (the *freemium* model) or that can be played free for only a short period as a welcome bonus. In addition to websites that are set up for this purpose, social casino games can be played on mobile apps or on social media (e.g. Facebook). Given that the game format of social casino games is often identical to that of real online casino games, some of the largest social casino games have been in the hands of online casinos until recently. Many casinos also offer their online options as *social casino games*. The turnover from social casino games in the Netherlands was estimated at approximately €27 million in 2017. The Superdata Research report cited above estimates the number of Dutch social casino players at approximately 4.1 million.

*Fantasy sports* are tournaments of compound wagers, similar to the football pools that are often played in private. Participants assemble their own sports teams after paying a deposit, and they obtain points for the match results (or individual performances in matches, including goals, assists and rescues) of the athletes that they have selected. Fantasy sports pay out both seasonal and daily cash prizes,

268 Superdata Research (2017), *Gambling and Digital Games in the Netherlands.*

with the prize for a given participant depending on the position in relation to other participants in the points ranking. Fantasy sports involve a certain level of skill (e.g. the application of data-mining methods to the available results in order to arrive at match predictions).[269]

In the United States, fantasy sports are classified as games of skill in many states. In addition to specialised operators, sports broadcasters and sports federations are active in this market. In European jurisdictions, however, including the Netherlands, the gambling element is decisive. Once the Remote Gambling Act has entered into effect, remote betting on fantasy sports will therefore be permitted, subject to a licence obligation, and under the condition that the sports matches are organised with due observance of the safeguards against the manipulation of sports matches (i.e. match-fixing).

The category of *eSports* covers competitions in games of strategy, such as the *real-time strategy (RTS) games* (e.g. Starcraft II) and *multiplayer online battle arena (MOBA)* games (e.g. Defense of the Ancients [DotA] and League of Legends). Another popular genre consists of *shooter games* like *first-person shooter (FPS)* games (e.g. Counter-Strike and Call of Duty) and *battle royal (BR)* games (e.g. Fortnite). Other games (e.g. the football matches in FIFA) are also classified as eSports. These eSports games are broadcast worldwide and watched by millions of fans.

Three different elements of gambling elements can arise around eSports, even without facilitation or provision by the publishers. First, it is possible to bet on eSports games. Because no eSports federations are yet affiliated with worldwide sports federations (e.g. Sport Accord), the guarantees for the integrity of the course of competitions are not yet adequate. For this reason, eSports-betting is currently not permitted in the Netherlands (see also Section 5.2.1).

Second, many eSports games offer the option of obtaining virtual items, like cosmetic features (skins) or the currency used within the game. These virtual items can often be exchanged or traded within the game, although they can also be used to gamble illegally outside the game (e.g. 'skin betting') on third-party websites (e.g. eSports games).

Virtual items can often be obtained without payment during the course of the game. In addition, players can purchase these virtual goods – not only by purchasing them within the game (the *direct-buy* option), but also by obtaining assignments (*battle passes*) and through non-influenced opportunities (*loot boxes*). Such loot boxes constitute the third element of gambling related to eSports.

269 Urbaczewski, A. and Elmore, R., 2018. Big Data, Efficient Markets, and the End of Daily Fantasy Sports As We Know It?. *Big data*, 6(4), pp.239-247.

*Digital card games* are sometimes also practiced as eSports, but with the necessary digital cards collected in advance. The purchase of the cards often takes the form of bundles of a number of cards at the same time, where it is not clear in advance which cards are in the bundle. The content of *card packs* in digital card games depends on non-influenced opportunities. There is a difference between *tradeable card games (TCG)* – either digital or non-digital – and *collectible card games (CCG)* – either digital or non-digital. In the former category (e.g. Magic the Gathering), the cards that have been obtained can be exchanged with other players. In the latter category of games (e.g. Hearthstone), this is not possible.

Whether loot boxes or card packs qualify as games of chance varies from case to case. The most important factor in this regard concerns whether the virtual prizes are tradable, and thus whether they represent any economic value.[270] The Procurator General and the Supreme Court have previously ruled on virtual objects in the Runescape decision of 2012.[271] As demonstrated by this conclusion of the Procurator General, the internal, virtual *game economy* can be regarded as a real economy and that a monetary value can be assigned to virtual items based on trade outside the context of a game. In another case, the administrative court followed suit in the first instance. This ruling held that the significant value of digital items that could be won from a given loot box was established based on supply and demand within the market existing inside the game in which they were offered. In this case, therefore, a prize was at issue.[272]

### *Players and behaviour*

*Gaming* is a popular activity, especially amongst young people and young adults.[273] In some cases, gaming can lead to psychological and/or social problems. It is estimated that between 3% and 5% of all adolescents between 12 and 16 years of age exhibit risky gaming behaviour, and less than 1% are said to have a gaming addiction.[274] Approximately half of all young people who play games shift from *social gaming* to paid gambling (online) at some point. They might not recognise this as a transition themselves, partly because they do not stop playing social games after start playing games of chance. They might also claim to be capable of keeping their gaming and games of chance well separated.[275] It is likely to be more of an overlapping interest than a causal connection.

270 Leidraad Beoordeling Kansspelen, Kansspelautoriteit (2018).
271 ECLI:NL:PHR:2012:BQ9251 and ECLI:NL:HR:2012:BQ9251 (Runescape).
272 ECLI:NL:ISDHA:2020:10428, recital 7.7. This judgment was appealed by the relevant gaming provider at the time of publication of this vision document.
273 https://www.gameninfo.nl/publiek/cijfers
274 D.E. de Bruin (2018), *Gamers en gokkers: literatuurverkenning van de risico's en schadelijke van gamen in relatie tot gokken:* The Hague/ Utrecht. CVO – Research & Consultancy / Kansspelautoriteit.
275 A. Kruize, I. Schoonbeek & J. van der Molen (2018), *Wisselwerking social games en kansspelen.* Intraval / Kansspelautoriteit.

Most of the young people who were interviewed reported seeing similarities and differences between social games and games of chance. They referred to the similarities: both are games, both can be played alone and in groups, both are social activities and both contain aspects of gambling. With regard to aspects of gambling, the respondents often referred to loot boxes, the content of which only makes the game more attractive in some cases while, in others, it increases the likelihood of winning the game.

According to the young people who were interviewed, the main difference between social games and games of chance is that participants in games of chance are much more focused on winning money. A second difference is that games of chance can be played only if money is wagered, whereas betting money is optional in social games. The reasons that these young people had for playing social games were therefore different from their reasons for participating in game of chances. In a game of chance, the possibility of winning money is often an important reason, while social games are played mainly for fun, relaxation, the social aspect and/or the desire to improve.

*Risks to public interests*

Virtually all of the young people who were interviewed reported believing that both social game*s* and games of chance involve risks. In both cases, the risks consist of addictive effects and spending large (or excessive) amounts of money. The addictive effect of social games rests in the desire to improve, the virtual rewards associated with attaining a certain level, the will to win and the attractiveness of the game. Some of the young people also referred to group pressure (social games are often played in teams). The most addictive aspect of gambling is, as always, the hope of winning something of high value (e.g. a large amount of money). For both social games and games of chance, about half of the young people indicated that they receive little or no information about the risks of playing. When they do receive information, parents are the most important source.

For the previously described fantasy sports, the element of gambling may dominate the previously described skill component, thus raising a risk of addiction. This is due primarily to the combination with an 'illusion of control' (as described in Section 4.4.2) and the daily frequency with which such games can be played.[276]

The risk of addiction associated with loot boxes in video games and digital card games can be measured according to the characteristics of the manner in which they are operated.[277] It should be noted that the tool used for this purpose was designed

276 Nower, L., Caler, K.R., Pickering, D. and Blaszczynski, A., 2018. Daily fantasy sports players: Gambling, addiction, and mental health problems. *Journal of gambling studies,* 34(3), pp.727-737.

277 D.E. de Bruin (2017). A*ssessment verslavingsgevoeligheid Nederlandse kansspelaanbod,* The Hague/Utrecht: Kansspelautoriteit/CVO – Research & Consultancy.

for traditional games of chance. Caution is therefore advised when interpreting the addiction risks measured in this manner. As suggested by recent research, however, there is a link between video games with loot boxes (regardless of game-specific characteristics) and problematic gambling.278

The *Kansspelautoriteit* has identified the risk of addiction associated with loot boxes for 10 popular video games.[279] The higher-scoring loot boxes have integrated elements that correspond to fruit machines. These loot boxes often have higher jackpots in which the virtual goods are transferable, players can continue to open loot boxes indefinitely, multiple visual and sound effects have been added and a 'near miss' effect is used. According to the measurement tool used, loot boxes with higher scores carry a risk of addiction that is comparable to that of blackjack and roulette, while those with lower scores are comparable to small-scale bingo.

As established in the literature, exposure to gambling at an early age increases the risk of gambling addiction later in life.[280] The literature nevertheless does not provide any clear conclusions with regard to the existence and potential extent of a causal link between loot boxes in gaming and problematic gambling. Large-scale longitudinal and experimental research is therefore needed in order to demonstrate a causal relationship between gaming at an early age and the development of a gambling disorder later in life.

*Regulation of games with elements of gambling*

As previously noted, digital games are highly diverse, and the gambling elements surrounding such games are even more diverse. Moreover, the regulation and supervision of video games is limited and fragmented. The age indications for games are based largely on violence and nudity, even though the occurrence of gambling (even in simulated form) can also constitute cause for classifying games as '16+' or '18+'. Although gambling addiction resembles gambling disorder in terms of the time spent, gambling disorder is more limited in terms of the extent of personal financial distress. Until recently, the issue of games had not received the same attention from policymakers as gambling. To date, no thorough analysis has been conducted with regard to the public interests that are likely to be involved in games, and such an analysis would exceed the scope of this document.281 It is nevertheless clear that this phenomenon exists across domains, and it cannot be solved by any individual supervisor. Games are too diverse to be regulated solely through the Betting and Gaming Act. The *Kansspelautoriteit* supervises games of chance, and not games of skill.

278 Zendle, D., Cairns, P., Barnett, H. and McCall, C., 2020. Paying for loot boxes is linked to problem gambling, regardless of specific features like cash-out and pay-to-win. *Computers in Human Behavior,* 102, pp.181-191.

279 Kansspelautoriteit (2018), *Onderzoek naar loot boxes: een buit of last?*

280 De Bruin, D. E., Meijerman, C. J. M., Leenders, F. R. J., & Braam, R. V. (2006). *Verslingerd aan meer dan een spel.* The Hague: Boom Juridische Uitgevers.

281 Gaming en publieke belangen, WODC/Trimbos-instituut.

For this reason, European gambling authorities (including the *Kansspelautoriteit*) have jointly declared their commitment to the development of a coordinated approach to the risks of both gaming and gambling.[282] The proposal for cooperation covers the European gambling authorities, as well as the national regulators involved with consumer protection, healthcare, education, media and financial markets. It has been proposed to initiate and continue a dialogue on the risks of convergence between gambling and other forms of digital entertainment, such as those described in this sub-section.

Given the wide diversity of appearances and the rapid pace of technological developments, it would make sense for the future regulation of games containing gambling elements to focus on preventing and curbing the underlying risks. For consumers, the distinction between games of skill and games of chance should always be clear. The basic principle with regard to minors, young adults and other vulnerable groups is that they should never be exposed to gambling through games that contain potentially addictive gambling elements (e.g. loot boxes).[283]

In its guide to online consumer protection (*Leidraad 'Bescherming online consument'*), the ACM explains that it interprets and applies the legislation on unfair commercial practices to online influencing techniques used by businesses.[284] Fair advertising and the provision of information to consumers is also an obvious choice for a controlled supply of games with elements of gambling. Possible examples include stating that the game includes the option of in-game purchases, along with the possible content of loot boxes and whether it affects game performance, as well as the odds of opportunities to acquire coveted items. In addition, access to items that can be won through loot boxes should also be possible through other means (e.g. through *direct buy* within the game). This would reduce the pressure to continue buying loot boxes, thereby also reducing the risk of addiction.

The Remote Gambling Act further stipulates that free practice games with no winnings must follow the same distribution of odds as the otherwise identical casino games, which are subject to the gaming-licence obligation. This will ensure that people cannot be lured from free games with unrealistic profit expectations into real games of chance.

### *6.5.3 Financial Products*

As discussed in Section 4.2, games of chance can be regarded as financial transactions that are conditional on uncertain events. The same also applies to many financial products. In this case as well, the return is uncertain, and individual investors have no influence on the financial reward. The Financial Supervision Act (*Wet op het*

282 Gaming Regulators European Forum (GREF, 2019), *Declaration of gambling regulators on their concerns related to the blurring of lines between gambling and gaming.*
283 https://kansspelautoriteit.nl/organisatie/organisatie/blogs-rene-jansen/loot-boxes/
284 Leidraad Bescherming online consument, Autoriteit Consument en Markt (2020).

*financieel toezicht*, Wft) contains a list of financial products, and the Dutch Authority for the Financial Markets (*Autoriteit Financiële Markten*, AFM) is charged with their supervision. In principle, the financial products described in the Wft are primarily financial tools. The reverse applies as well: in principle, the games described in the Betting and Gaming Act are primarily games of chance.

In the following paragraphs, we discuss three categories of financial products that bear strong similarities to games of chance. The products are presented in increasing order of seriousness, starting with two legitimate products, proceeding to two risky forms of investment and, finally, three dubious or even downright fraudulent constructions. We conclude with a vision of how the supervision of specific structures (e.g. pyramid schemes) could be shaped in the future. The '*gamification*' of financial products and their potentially addictive effects is a recent trend that is supervised by the AFM, and it falls outside the scope of this document.[285]

*Legitimate products: Life insurance and premium loans*

The well-known financial product *life insurance* is explicitly excluded as a game of chance.[286] This also applies to lesser-known *premium loans*, in which a money lender pays the annual interest due in the form of a lottery amongst lenders.[287] Consumers are unlikely to buy these products for fun, and they should therefore be excluded as games of chance.

*Risky products: Binary options and contracts for difference*

As noted in Section 4.2.1, some forms of betting (e.g. spread betting) have leverage effects that can result in losses that exceed the deposit. Similar risks exist for such financial products as *contracts for difference* and binary options. Restrictions on the sale of contracts for difference and a generic ban on the sale of binary options to non-professional investors have recently been introduced in the Netherlands through Europe. Given that regular consumers do not have access to such complex products, the question of whether contracts for difference or binary options also include games of chance need not be answered in practice.

The *Kansspelautoriteit* has identified binary options on specially adapted gaming machines. The short turnaround times and high fluctuations in the yield of binary options apparently appeal to the preferences of players of high-frequency games of chance (e.g. gaming machines). Binary options are not permitted under the gaming-machine regulations. The *Kansspelautoriteit* is responsible for detecting and enforcing the regulations against this illegal manifestation of gaming machines.

285 https://www.afm.nl/nl-nl/nieuws/2018/juni/blog-ruben-gamification
286 Betting and Gaming Act, Article 2, paragraph 2.
287 Betting and Gaming Act, Article 2, paragraph 3.

*Fraudulent products: Pyramid schemes, multi-level marketing and Ponzi schemes*

In addition to the classic games of chance described earlier in this section (e.g. lotteries, betting, gaming machines and casino games for which a licence can be applied for), the Betting and Gaming Act also contains a provision concerning 'pyramid schemes':

> *A pyramid scheme shall be understood as a matter on which participants surrender an asset or enter into a commitment in order to obtain an advantage dependent in whole or in part on the surrender of an asset or the entry into a commitment by subsequent participants.*[288]

Despite the absence of any element of chance, the legislation is intended to prohibit such scams by including them in the Betting and Gaming Act and by not providing any licence for them. The *Kansspelautoriteit* is currently responsible for detecting and enforcing the regulations against illegal games of chance.[289] Given that such pyramid schemes are almost always fraudulent, they have also been included in the Unfair Commercial Practices Act (*Wet oneerlijke handelspraktijken, OHP*):

> *Setting up, managing or recommending a pyramid system in which the consumer, in return for payment, has a chance of obtaining compensation arising from the introduction of new consumers into the system rather than from the sale or consumption of goods.*[290]

The Authority for Consumers and Markets (ACM) and the Dutch Authority for the Financial Markets (AFM) supervise unfair trading practices, with the AFM being the competent authority for financial services and activities and the ACM being the competent authority for the supervision of all other products and services.

A related phenomenon within the commercial sector is *multi-level marketing*: the sale of a product or service, where sellers earn income both by selling products (which they can buy inexpensively) and by recruiting new sellers. New sellers surrender part of the amount of their sales to the individuals who recruited them. This creates a pyramid business model. In some cases, multi-level marketing can be regarded as an unfair commercial practice or as a pyramid game under the Betting and Gaming Act. There are no decisions by ACM, AFM or the *Kansspelautoriteit* that have set precedents in this respect.

There is a thin dividing line between pyramid schemes and other forms of fraud. The notorious 'Ponzi scheme' is a well-known example.[291] In Ponzi schemes, people are invited to invest in a product that is presented as yielding a high return. The

288 Betting and Gaming Act, Article 1a, paragraph 2.
289 https://kansspelautoriteit.nl/onderwerpen/a-z/piramidespel/
290 Civil Code 6, section 193g, sub-section n.
291 Named after the American Charles Ponzi, who was convicted for these activities in 1920.

promises of high returns can initially be honoured to first-time investors by using the investments of newcomers for this purpose. Once the growth of new investors stops, or if too many investors reclaim their deposits, the fraud becomes visible. The difference between Ponzi schemes and pyramid schemes is that, in Ponzi schemes, the investors themselves do not have to bring in new participants. Given that the offering of financial products falls under the supervision of the AFM, Ponzi schemes are often offered through forms of investment that do not fall under any financial supervision.

*Vision on the enforcement of regulations against pyramid schemes*

Despite the fact that the three dubious or potentially fraudulent products mentioned in this sub-section are closely related to each other and share the same public interest of consumer protection (and, possibly, fighting crime and preserving confidence in the financial markets), the enforcement of regulations against them in the Netherlands is distributed across three supervisory agencies, each with its own expertise.

In order to achieve greater uniformity in the regulation and enforcement of infringements, it would be reasonable to eliminate pyramid schemes (which do not involve any element of chance) from gambling legislation. Instead, the current generic ban on such fraudulent schemes could be accommodated in another piece of legislation, for which a competent investigative and enforcement body would obtain jurisdiction.

It is important for pyramid schemes as such to remain prohibited and for such schemes to continue to be defined as economic crimes, with criminal consequences for offenders. Conversely, transferring pyramid schemes to the regulations concerning unfair commercial practices would impose a disproportionate burden of proof for criminal enforcement, given the necessity of establishing criminal offences (e.g. forgery or embezzlement) in each individual case.

*Afzendgegevens*

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