atlas research

Pulling out all the stops

Exploring policy options for gambling machines – summary

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Summary

The most recent Dutch laws and regulations governing gambling machines date from the year 2000. Since then, new technical options have been developed to pay, or monitor, limit or stop players' gambling behaviour. In the future, a possible modernisation of Dutch gambling machine policy could take place. The Dutch Ministry of Justice and Security (hereinafter: JenV) wants to explore the impact of different possible policy options on players, providers, and on the objectives of Dutch gambling policy. These policy options concern:

1. **Payment method**, in particular *cashless play*;
2. **Player identification and protection**;
3. **Gambling limits**;

The researchers examined the above possible policy options, adding a fourth possible policy option:

4. **Expanding the range of games on offer**.

The aim of this study is to gain insight into the effects of the policy options on players' playing behaviour and the objectives of Dutch gambling policy. During the course of this study, these objectives have changed. The differences between the old and new policy objectives are explained in Appendix 2. In this study, we tried to use the new policy objectives as much as possible when interpreting the results. These new, more stringent policy objectives concern:

1. Protecting citizens from gambling-related harm;
2. Countering gambling-related crime;
3. Preventing participation in illegal gambling and combating illegal offer.

Variants per policy option

For each of the four possible policy options, several possible variants have been formulated and are discussed in this study. In the current situation, land-based gambling machines have cash payments as the method of payment, and there is a possibility of exemption for payment via a player card (*cashless play*). Possible adjustments to policy include generically allowing rechargeable player cards for gambling machines or introducing fully cashless play.

Not everyone is allowed to play on gambling machines: there is currently a minimum age of 18 years[1] and, in addition, players at gambling arcades and gambling casinos can be checked for registration in the Central Register Exclusion of Games of Chance (hereinafter: Cruks).[2] Alternative options for

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[1] In response to the evaluation of the Remote Gambling Act, the government has announced its intention to raise the minimum age for participation in the highest-risk games of chance (including slot machines) from 18 to 21.

[2] Players can register themselves via DigiD in Cruks for a gambling break of at least six months.

player identification and protection include introducing automatic age verification in the hospitality industry (through an ID card scanner) and introducing full player identification, where identification is mandatory and linked to a player account.

Currently, legal gambling limits are set for land-based gambling machines that specify the maximum amount a player can wager per game. Possible variants for this policy option include indexation of the playing limits (e.g. based on inflation) and the possibility of self-setting the amounts wagered, lost and/or paid out per unit of time.

In the current situation, a fixed number (often one) of games is installed on the gambling machine. Broadening the game offer here involves *introducing server-based gambling*, where the gambling machine is a remotely controlled and adjustable video terminal. This makes it possible to remotely change the machine's offerings.

Set-up locations of gambling machines

Besides the different variants per policy option, it is important to consider the differences in the application of the possible policy to the different set-up locations of land-based gambling machines. There are three (legal) set-up locations for these machines:

1. High-threshold catering establishments (hereinafter: hospitality industry);
2. Gambling arcades;
3. Gambling casinos (Holland Casino).

Gambling machines in the hospitality industry are most restricted in terms of the amounts a player can bet and lose per hour, the games on offer per machine and the number of machines per catering establishment. This is accompanied by age verification, upon entering the venue or if there is any doubt about the player's age. Gambling arcades and gambling casinos both have stricter entry controls than the hospitality industry: players must identify themselves at the entrance and are checked for any Cruks registration. Finally, in the gambling casinos, it is possible to wager and lose higher amounts per hour compared to the catering establishments and gambling arcades.

Research design

To explore the possible consequences of the various policy options, desk research was conducted on Dutch and international policy around gambling machines, interviews were held with various stakeholders, and an online choice experiment was conducted among 570 people. The stakeholders interviewed within the (land-based) gambling sector included experts by experience, scientists, an industry association, various providers and operators, manufacturers, and other parties with insights into player behaviour (including from addiction care). The 570 people who participated in the choice experiment consisted mostly of people who had recent experience with gambling, especially on slot machines. The choice experiment includes the Problem Gambling Severity Index (hereinafter: PGSI), which measures the severity of gambling problems among respondents. In addition, respondents'

reward sensitivity is measured because people with higher reward sensitivity may be at higher risk of addiction problems. By measuring the severity of gambling problems and reward sensitivity, it can be tested whether individuals at higher risk of gambling addiction respond differently to the policy options.

We make the following comments on the research methods used. First, regarding the desk research one should take into account that the foreign (policy) context is different from that of the Netherlands. In the interviews with stakeholders, different, sometimes diverging, interests that colour the responses have to be dealt with. Finally, the choice experiment asks players to imagine a hypothetical situation and does not directly measure players' behaviour. Despite these caveats about the individual methods, the use of multiple methods combined with the exploratory nature of the study makes the final conclusions of the study robust.

Action perspective for policy

The analysis of Dutch policy around land-based gambling machines shows that there has been a differentiated approach since the Slot Machines Decree 2000. Set-up locations such as catering establishments, gambling arcades and casinos each fall under different rules, based on different risk assessments, controllability and policy considerations. The policy balances (better) protection of players from gambling harm on the one hand, while leaving room for relaxations and commercial interests on the other. These relaxations, such as higher wagering options or an expanded range of games per machine, are not always accompanied by additional protective measures and are applied site-specifically. As a result, policies are fragmented and, in practice, the level of protection varies considerably by location type.

The international comparison shows that similar policy issues also exist in other European countries. Scandinavian countries such as Norway, Denmark and Finland have adopted a stricter and integrated approach. There, measures such as player identification, *cashless play* and personal gambling limits are integrated into broader prevention policies. These measures reinforce each other and enable effective control of risky playing behaviour, although they require strict enforcement and policy consistency.

In contrast, Dutch policy is characterised by a hybrid and pragmatic approach, where policy objectives and policy resources are by no means always aligned. This makes policy complex and can undermine the effectiveness of gambling harm prevention. The international examples make clear that a comprehensive and coherent approach is necessary to reduce problematic gambling behaviour and therefore gambling harm.

The core of the policy issue revolves around finding a viable balance between accessible supply and protection of (vulnerable) players. On the one hand, a low-threshold, legal offer with wider participation but with a higher risk of gambling harm can be chosen. On the other hand, a strictly

regulated system is possible in which players are better protected, but the threshold for participation actually becomes higher, with the risk that a certain group of players will defect to the illegal offer. This choice touches on fundamental values and interests, where not all parties' wishes can be met. For this reason, transparent policy is essential, in which trade-offs are made visible, vulnerable players are given a central position, while the feasibility and economic viability of the policy is taken into account. To this end, this study aims to provide direction and concrete starting points.

General conclusions

The possible consequences of various options for modernising gambling machine policy were tested in this study. A primary conclusion here is that a coherent approach to these options is essential to effectively contribute to addiction prevention and control of the gambling supply. If some policy options are modernised (*cashless play*) but not others (player identification with protective measures), the risk of problematic gambling behaviour may actually increase. In addition, an important conclusion is that designing a new form of gambling machines requires balancing interests. Firstly, machines must be safe for players and non-players, especially people in a vulnerable position, secondly, they must be sufficiently resistant to gambling-related crime (such as money laundering), and lastly, investment in and operation of such machines must be sufficiently profitable. Depending on the perspective from which gambling policy is viewed, these elements can be assigned different weights. From the perspective of preventing gambling harm, the safety of the machines for players will have priority, while providers and operators have a greater interest in (enough) profitable machines.

In terms of perspectives on modernising gambling machine policy, there is a tension between player protection on the one hand and the interests of gambling machine providers on the other. Providers want to preserve the enjoyment of playing and keep their offer attractive, while scientists, experts by experience and addiction specialists are actually pushing for more control and risk reduction. Introducing more modern machines on which players can only play with an account and *cashless play* provide more opportunities in terms of player protection, but there are also concerns that they could be a barrier for people to use the legal offer of gambling machines.

The choice experiment shows that some more modern policy options could indeed be a barrier for some players, but that machines with a combination of player accounts and adjustable play limits would pose a limited risk of reduced channelling to the legal offer. Should policy options such as player account be introduced in the future, it is important to highlight the benefits (control over playing limits) in addition to the potential barriers people see (less anonymity).

Insights by policy option

For this study, four policy options were explored for the gambling machine policy by means of three methods: desk research of the laws and regulations in the Netherlands and an international comparison with surrounding European countries, interviews with stakeholders and, finally, a choice

experiment among players to investigate gambling preferences. The insights per policy option and method are detailed below.

Payment method

The payment method concerns how a player can pay at the gambling machine to start a game. From the desk research of laws and regulations in the Netherlands and surrounding countries, the following variants emerged as policy options for payment method (and scope for *cashless play*):

1. **Cash payment** (current situation): throw-in consists mainly of cash payment (coins, banknotes or chips). This is similar to the situation in countries such as Spain and Italy. There has been an exemption option for the use of *cashless play* in the Netherlands since 2011.
2. **Player card** (upgradable chip card): this variant resembles the situation in Italy, where upgradable player cards are increasingly used. This differs from the Dutch situation in that this allows the player card by default and therefore does not require an exemption.
3. **Fully cashless gambling**: this resembles the Dutch online gambling and gambling machines in Norway and Finland, where payments are made exclusively via player cards or bank transfers.

Stakeholder interviews revealed that the presence of and paying with cash at a gambling venue increases the risk of money laundering and robberies. At the same time, experts with an understanding of player behaviour pointed out that physically seeing and handling cash, especially during swapping, can contribute to a moment of player awareness. This creates a potential tension between the importance of security for providers on the one hand, and the importance of player protection on the other. Providers are generally reluctant to a mandatory *cashless* system, as they believe it may exclude certain groups of players. Moreover, they consider the introduction of player cards in the hospitality industry or direct contactless payment at the gambling machine to be costly. As an alternative to contactless payments, the use of QR codes linked to iDeal was mentioned, due to the relatively low cost of implementing it.

From the perspective of preventing gambling harm, *cashless play* only offers advantages when there is a personalised player card, which can be linked to a player account, for example. In this way, players' playing behaviour can be monitored and any signs of gambling damage can be spotted early.

Surveyed players generally preferred gambling machines with cash payment. From around 50 years of age, there was an increasing preference for gambling machines with cash payment, while younger players were more likely to prefer *cashless play*.

The policy option player identification and protection concerns the extent to which players are required to identify themselves before playing on a gambling machine and the extent to which protective measures have been implemented to protect players from possible gambling harm.

From the desk research of laws and regulations in the Netherlands and surrounding countries, the following variants emerged as policy options for player identification and protection:

1. **Mandatory identification in gambling halls and gambling casinos (including Cruks check); catering establishments check on their own initiative only for age** (current situation): in this option, catering staff estimate whether a player is older than 18. In case of doubt, an ID card can be requested. This is similar to the practice in Spain.
2. **Current situation + automatic age verification**: this would involve catering establishments using an ID card scanner to verify age. Politically, this would bring the Netherlands closer to Germany, where such scanners are already used. This option is limited to age verification.
3. **Full player identification**: this option not only verifies age and Cruks registration, but also links this verification to a player account through which playing behaviour can be monitored. This option corresponds to Dutch online gambling and to gambling machines in Norway, Denmark and Finland, where identification is mandatory and linked to player accounts.

The proposal to introduce ID card scanners on gambling machines in the hospitality industry (option 2) is received with scepticism from the perspective of preventing gambling harm. The scanners are seen as prone to 'tampering' and would therefore be of limited effectiveness in preventing gambling harm. Instead, manufacturers see them as a low-threshold and practical solution for age verification in the hospitality industry, with minimal impact on the user's gambling experience.

An introduction of full player identification and control of Cruks registration for all three set-up locations led to widely divergent opinions among the stakeholders interviewed. Several experts with an understanding of player behaviour spoke clearly in favour of this measure, as it would allow better monitoring, facilitate early intervention in problematic gambling and strengthen gambling harm prevention. Providers and operators on the other hand were critical: they fear high implementation costs and think that compulsory identification will deter (many) players and possibly drive them towards anonymous, illegal offers.

The choice experiment shows that the use of player accounts on land-based gambling machines is a barrier for a part of the players. This deterrent effect was greatest among people with a low PGSI score, or players with no or very limited risk factors for problematic gambling behaviour. They perceived a player account more as an unnecessary curtailment. In contrast, a mandatory Cruks check appeared to create hardly any barrier: the preference for machines with only age verification or with a Cruks check was about the same among respondents.

The desk research of laws and regulations in the Netherlands and surrounding countries revealed the following variants as policy options for playing limits:

1. **Statutory (2002) fixed gambling limits** (current situation): the current gambling limits on gambling machines in the Netherlands are quite strict, as in Germany and Spain. There are legally fixed bet and loss limits per machine and location type. These limits are not automatically adjusted for inflation.
2. **Playing limits adjusted for inflation**: currently, there is no inflation adjustment and the limits have been unchanged for 23 years. Under this option, the playing limits would be increased to the current price level.
3. **Self-set limits**: this option allows players to set their own playing limits, for example, based on what they can spend on maximum monthly gambling. This is similar to the approach in Dutch online gambling and with gambling machines in Denmark and Finland.

Among the stakeholders interviewed, there are different views on inflation-corrected maximum bets and hourly losses. Among gambling halls and catering establishments, people have been waiting for an adjustment since the introduction of the euro in 2002, and among gambling casinos this is hardly an issue. From the perspective of preventing gambling damage, there are concerns that higher amounts lead to more gambling damage, which can only be somewhat curbed with self-adjustable gambling limits. An important note here is that from this perspective, experts argue that legally set gambling limits remain necessary, but that self-adjustable gambling limits that can only be adjusted downwards can have a positive effect on preventing gambling harm. The additional investment to achieve this technically is difficult for providers, especially after the increase in gambling tax.

In the choice experiment, this policy option was implemented via two machine features: the hour loss and the possibility to set this as a player himself. Taken together, setting your own play limit is an attractive option for everyone, and a higher hourly loss is a deterrent for some players. Certain groups that are less deterred by the higher hourly loss (people with a higher PGSI score or a higher reward sensitivity) may be more at risk of gambling harm with a higher hourly loss.

Expanding the range of games on offer

From the desk research of laws and regulations in the Netherlands and surrounding countries, the following variants emerged as policy options for expanding the range of games on offer:

1. **Current situation**: a fixed number (usually one) of games installed on the slot machine;
2. **Expanding the range of games on offer**: via server-based gambling in which the slot machine is a remotely adjustable video terminal. This is in line with Dutch online gambling and gambling machines in countries such as the UK and Denmark.

Of the stakeholders interviewed, experience experts and academics argue that the current gambling offerings are already essentially very risky products. Also from the providers of *land-based* games of chance in gambling arcades and gambling casinos, the desire for a expanding the range of games on offer appears limited, especially because of the high investments. Modernisation is simply not urgent for them, as they can get along fine with the existing technical rules. For them, the current situation suffices. Because of this low urgency and to keep the choices as clear as possible for the respondents, this policy option was therefore ultimately not tested in the choice experiment.

Possible impacts on gambling behaviour and the policy objectives

The policy options explored in this study have varying implications for players, providers and the realisation of gambling policy. To answer the research questions, the insights from the various methods used in this study (desk research, interviews with stakeholders and a choice experiment among players) were combined. The four policy options were then examined for their expected impact on the three public interests. This expected qualitative impact is summarised in Table 1.

Table 1: expected qualitative impact of the policy options on the three public interests

	Player protection	Countering crime	Preventing illegal play
Payment method			
Compared to current situation			
Player card	+/–	+/–	–
Fully cashless play	+/–	+	+/–
Identity check			
Compared to current situation			
+/– Age verification	+/–	+/–	+/–
Player accounts	+	+	+/–
Game limits			
Compared to current situation			
Inflation adjustment	–	+/–	+/–
Adjustable playing limits	+	+/–	+/–
Range of games on offer			
Compared to current situation			
Expanded range of games	–	+/–	+

Table 1 shows that no single policy option is an improvement over the current situation on all fronts. The transition to cashless gambling combined with player accounts and adjustable limits scores relatively favourably. Policy options such as mandating a player card, inflation correction or expanding the range of games on offer score negatively on at least one of the new policy objectives.

Table 2 breaks down that same qualitative impact to three different perspectives: the player, the gambling harm and the provider. This table shows that adjustable playing limits appear to have a positive impact on both players and gambling harm reduction, with no direct disadvantages for providers. This makes this policy option promising.

Table 2 : expected qualitative impact of the policy options by three different perspectives: players, gambling harms (including those around players) and providers.

	Players	Gambling harm	Providers
Payment method			
Compared to current situation			
Player card	–	+/–	–
Fully cashless play	–	+	–
Identity check			
Compared to current situation			
+/– Age verification	+/–	+/–	–
Player accounts	–	+	–
Game limits			
Compared to current situation			
Inflation adjustment	–	–	+
Adjustable playing limits	+	+	?
Range of games on offer			
Compared to current situation			
Expanded range of games	+	–	?

Answers to the research questions

With the above tables, the research questions of this study can be answered.

Effects on player behaviour (research question 1a)

A hypothetical gambling machine that effectively limits players' spending and frequency of play as much as possible would be a combination of the explored policy options: cash payment (without identification) combined with adjustable, person-specific playing limits and a non-indexed hourly loss. In theory, this seems to be an effective construction to limit gambling losses without losing players directly, but in practice, combining anonymity and person-specific limits proves difficult to realise.

Cashless payment through a player account, player identification and abandoning a capped hourly loss are unpopular among players, especially among the older target group. On the other hand, adjustable playing limits are actually appreciated, especially by younger players with experience in online gambling. For limiting spending, the policy option playing limits is especially crucial.

Consequences for policy objectives (research question 1b)

A hypothetical gambling machine that achieves the objectives of Dutch gambling policy as well as possible follows a slightly different combination of policy options than described above. Switching to fully cashless payments via player accounts virtually eliminates the risk of money laundering and robbery. In addition, both player accounts and adjustable game limits contribute to player identification and protection. Thus, adequate monitoring of (potential) gambling losses can also be realised. There is no policy need to index the maximum bet or hourly loss.

Effects on channelling (research question 1c)

The greatest risks of reduced channelling to the legal offer lie with gambling machine features perceived by players as unattractive. Features that emerged from the choice experiment included cashless payment, mandatory identification and a higher maximum bet. Players who value anonymity are often pre-existing and non-problematic players. Introducing policy options with such gambling machine features may divert these players to illegal offerings. At the same time, the analysis shows that the risk of reduced channelling to the legal offer with these gambling machine features is almost entirely offset by the attractiveness of adjustable playing limits.

Implications for providers and operators (research question 1d)

The technological adaptations required for the explored policy options - such as account systems, *cashless* technology and monitoring tools - require significant investments from providers and operators. The recent increase in the gambling tax in 2025 (and the planned increase in 2026) puts significant pressure on the industry's profitability and ability to invest.

Other consequences (research question 2)

Potential regulatory reform raises institutional questions. The current market organisation with both open systems (catering establishments and gambling arcades), and a closed monopoly system (gambling casinos) would need to be reviewed.

Mitigation of negative consequences (research question 3)

The modernisation of gambling machine policy offers an opportunity to improve protection and supervision. One promising route is that of a *hybrid* gambling machine: this is a machine equipped with the digital technology of online gambling (such as player accounts and playing limits), but is limited with a maximum insertion and hourly loss equal to that of physical machines in the hospitality industry and gambling arcades. Such a gambling machine, modernised with a focus on simplifying outdated laws and regulations, and incorporating *the lessons learned* from the early years of online gambling, offers an opportunity to better protect (potential) players from gambling harm.