makrologik

The Development of Problem Gambling in the Swedish Gambling Market

Market Dynamics and Conditions for Effective Prevention

Ola Nevander
March 2026

Foreword by The Swedish Trade Association for Online Gambling (BOS)

The purpose of this report is to facilitate a discussion on how problem gambling can best be addressed, a discussion based more on evidence and less on speculation.

We have commissioned the economist Ola Nevander to examine three questions related to the gambling market and its adverse effects, namely problem gambling.

First, we have requested data on the prevalence of problem gambling in Sweden, to the extent that reliable information Is available. Second, we have asked Nevander to assess whether some of the most common claims in the public debate regarding the causes of problem gambling can be linked to its prevalence. Third, we have asked Nevander to evaluate, at an aggregate level, the most commonly used measures and treatment approaches aimed at addressing problem gambling.

Through this project, we aim to contribute in two ways. First, by providing knowledge about what is already known – or at least ought to be known – about problem gambling, but which is rarely reflected in the public debate. Second, by ensuring that this knowledge can serve as a solid foundation for more forward-looking work aimed at developing policy proposals to minimise problem gambling, both now and in the future.

Finally, we would like to highlight the need for a new Swelogs study by the Swedish Public Health Agency. The most recent survey dates from 2021. This represents a gap of half a decade, and a proper understanding of the prevalence of problem gambling in Sweden requires that the evidence base is updated at regular and not overly distant intervals.

Gustaf Hoffstedt
Secretary General BOS, March 2026

About the report

This report has been authored by Ola Nevander, economist at the analytical firm Makrologik**,** commissioned by the Swedish Trade Association for Online Gambling (BOS). The work was carried out between September 2025 and March 2026. The contact person at BOS was Gustaf Hoffstedt, Secretary General.

The purpose of the report is to analyse the development of problem gambling in the Swedish gambling market. The analysis combines economic theory with interdisciplinary perspectives and epidemiological data. The report is based on a review of official statistics, government inquiries, and Swedish and international research literature. In addition, interviews have been conducted with experts in psychology and economics.

Any interpretations and conclusions presented in the report are those of the author and do not necessarily reflect the views of the commissioning organisation.

Executive Summary

The report analyses the development of problem gambling in Sweden over recent decades, particularly in relation to the substantial changes in the structure of the gambling market. National prevalence studies show that the share of problem gamblers in the population has, over time, remained relatively stable or declined somewhat. The proportion of problem gamblers (PGSI 3+) in the adult population decreased from 2.2 per cent in 2008/2009 to 1.3 per cent in 2021. Furthermore, prevalence is lower in Sweden than in several other Nordic countries.

This development has occurred in parallel with a major expansion of online gambling. Over the 2000s, marketing investments by gambling operators have increased significantly, the supply of digital gambling products has expanded markedly, and technical access to the gambling market has improved through broadband availability and smartphones. However, available population data do not indicate any clear positive relationship between these factors and the prevalence of problem gambling. Despite sharply increased marketing investments, a rapidly expanding product supply, and substantially reduced technical barriers to gambling, problem gambling at the population level has declined.

A potentially important institutional factor in preventing problem gambling is channelisation to the licensed market. When gambling takes place with licensed operators, protective mechanisms such as duty-of-care obligations, self-exclusion, and data-driven monitoring can be applied consistently. This creates opportunities for consumer protection, knowledge generation, and interventions for individuals in need of support and treatment. When gambling instead shifts to unlicensed operators, these opportunities are weakened.

At the same time, the research literature provides some empirical support for measures to prevent and treat problem gambling. Technical tools such as self-exclusion systems, pre-commitment mechanisms, and data-driven risk identification can contribute to risk reduction, particularly in environments with high channelisation. The design of regulatory frameworks and market structures also plays an important role in establishing stable conditions for effective consumer protection. In addition, there is relatively strong evidence for psychological treatment methods, particularly cognitive behavioural therapy (CBT), as well as some evidence for complementary interventions such as motivational interviewing (MI) and brief interventions.

Overall, the analysis suggests that the development of problem gambling is shaped by a complex interaction between vulnerabilities, social trends, market structure, exposure to risk, and institutional conditions. At the same time, there are established tools to prevent risks and reduce problem gambling, although the evidence base remains limited in several areas and further research is needed.

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1. From Sin to Vulnerability: The Historical Reinterpretation of the Problem Gambler

Gambling has existed in organised forms for thousands of years. Archaeological and historical sources show that dice games, betting and lottery-like activities were common already in ancient Mesopotamia, China, and Rome.[1] While the forms of gambling have evolved over time, its underlying mechanics – stake, chance and potential reward – have remained relatively stable. By contrast, the understanding of problem gambling has undergone significant changes.

Accounts of individuals who lost substantial assets through gambling and placed themselves and their family in debt can already be found in antiquity. The Roman historian Tacitus (c. 56–120 AD) describes how the Germanic peoples were particularly drawn to gambling and expresses astonishment at its consequences:

> *Remarkably, they play at dice when sober, as a serious activity, and with such a reckless willingness to win or lose that, once everything else is gone, they stake their liberty and their very persons on a final throw.*[2]

In early societies, gambling was often condemned in moral and religious terms. Within the Christian tradition, gambling for money was portrayed as an expression of greed and a violation of divine order – early church councils prohibited games of chance, which were long regarded as sinful.[3] The problem gambler was thus seen as a fallen individual – someone who, through weakness of character and moral decline, had deviated from the proper path.

With the Reformation, and later through industrialisation and urbanisation, the focus gradually shifted from sin to social function. Excessive gambling came increasingly to be understood as a manifestation of social disorder – behaviour considered to undermine work discipline, family provision and economic stability.[4] The problem gambler was thus recast as a socially deviant individual – someone whose behaviour threatened the economic and social order.

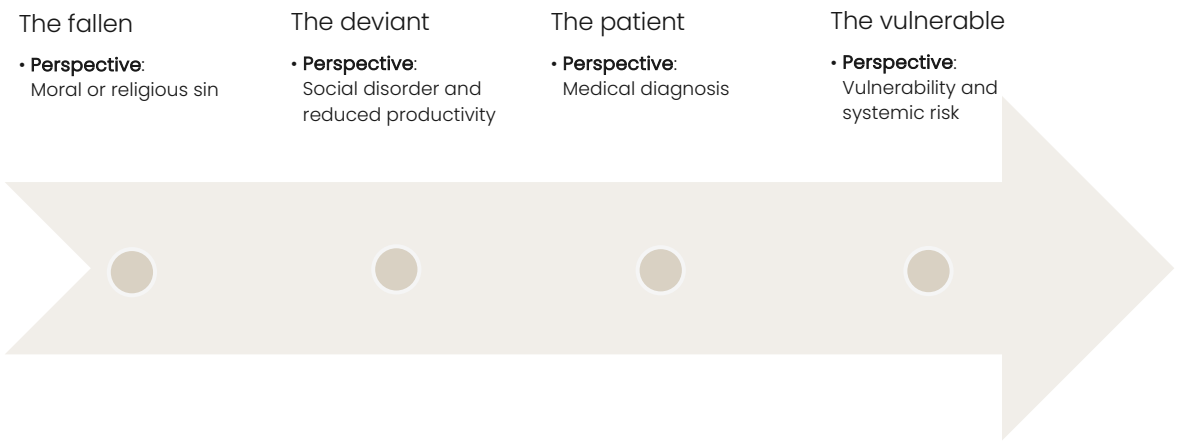
In the latter half of the twentieth century, a medical and psychological interpretation became established, in which problem gambling was defined as an addictive disorder. This was institutionalised, among other ways, through diagnostic criteria in DSM-III (1980) and through the development of treatment models.[5] The problem gambler was now understood as a patient—an individual whose behaviour was explained in terms of addiction, loss of control and need for treatment, rather than sin or social deviance.

Today, a risk- and vulnerability-based perspective has become dominant, in which gambling problems are understood as the result of interactions between individual vulnerability, the gambling environment, and broader social, economic and regulatory conditions. The problem gambler is thus understood as a vulnerable individual – someone whose risk profile develops through the interaction between personal characteristics and the surrounding environment, shaped by exposure to risks and by the dynamics of the gambling market.[6]

[1] Schwartz, 2013.
[2] Quoted in SOU 1992:130, p. 70. Freely translated from Swedish.
[3] Binde 2007.
[4] Reith 2002; Binde 2007.
[5] Ferentzy & Turner, 2012. DSM stands for the *Diagnostic and Statistical Manual of Mental Disorders*, published by the American Psychiatric Association (APA).
[6] Abbott et al. 2018a.

Figure 1. Historical Shifts in the Understanding of the Problem Gambler

Problem gambling has historically been interpreted as a moral failing, social deviance, and a medical diagnosis. Today, a systems perspective dominates, in which risk is understood as arising from the interaction between individual vulnerability and exposure.



The shift from morality to vulnerability and systemic risk has also influenced the modern production of knowledge on problem gambling. In Sweden, this became evident during the 1980s and 1990s, when problem gambling began to be studied within a public health framework, including through national prevalence surveys.

2. The Development of Problem Gambling in Sweden Over Time

Early estimates of the prevalence of problem gambling in Sweden

Early estimates of the prevalence of problem gambling in Sweden were uncertain and fragmented. During the 1980s and early 1990s, no national prevalence surveys were conducted. A government inquiry from 1992 noted that research on gambling disorder in Sweden was still in its infancy and that there was a lack of scientific evidence to assess the extent of the problem.[7]

Assessments were instead based primarily on international comparisons and smaller local studies. International studies from the 1980s – mainly from the United States, Canada and Australia – indicated that between 0.25 and 0.4 per cent of the population could be classified as having a gambling disorder. The German organisation Caritas estimated in 1989 that around 0.3 per cent of the population needed counselling and treatment, which, when extrapolated to Swedish conditions, corresponded to approximately 23,000 individuals. At the same time, Swedish estimates and data from Stockholm County pointed to substantially lower figures – around 1,900 individuals nationwide.[8]

Overall, the period was characterised by considerable uncertainty regarding both definitions and assessments of the scale of the problem. Only later were more systematic national prevalence surveys established, enabling more reliable and comparable monitoring over time.

SweGS 1997/1998 – the first national prevalence study

The first national mapping of gambling behaviour and problem gambling in Sweden was conducted in 1997/1998 through the Swedish Gambling Study (SweGS), commissioned by the Swedish National Institute of Public Health.[9] The study used the screening instrument South Oaks Gambling Screen – Revised (SOGS-R) to identify problem gambling. SOGS-R is a questionnaire including items on gambling behaviour and its consequences, for example whether the individual has attempted to win back losses or borrowed money to gamble. The share of the adult population (aged 15–74) reporting that they had gambled for money in the past year was 88 per cent.[10] The prevalence of problem gambling was estimated at 2.0 per cent, while the share with severe problem gambling was estimated at 0.6 per cent.[11]

In comparison with the later and recurring national study, the Swedish Longitudinal Gambling Study (Swelogs) – initiated in 2008/2009 – methodological differences emerge that affect comparability over time. Swelogs applies the Problem Gambling Severity Index (PGSI) instead of SOGS-R and covers age ranges of 16–84 and 16–87, depending on the survey year.[12] PGSI, like SOGS-R, is a standardised questionnaire in which respondents answer questions on, for example, loss of control, financial consequences, and concerns related to gambling.

[7] SOU 1992:130.
[8] Ibid.
[9] Swedish Public Health Agency, 2015.
[10] See Rönnberg et al., 1999, and the Swedish Public Health Agency, 2021. In the main study, the sample size was 7,139 individuals.
[11] Rönnberg et al., 1999. Problem gambling was defined as SOGS-R 3+, while the share with severe problem gambling ("probable pathological gamblers") was defined as SOGS-R 5+.
[12] For the surveys in 2008/2009 and 2015, the sample covered individuals aged 16–84, while for 2018 and 2021 the range was 16–87.

A calibration study based on Swedish data showed that the instruments produce similar results for moderate levels of problem gambling (PGSI 3+ and SOGS-R 3+), but that SOGS-R tends to yield higher estimates for the most severe cases.[13] In this report, the measure PGSI 3+ is used primarily in the subsequent analysis, as it captures both individuals with established gambling problems and those at elevated risk, and yields sufficiently large groups in survey samples to enable statistically robust comparisons across survey waves.

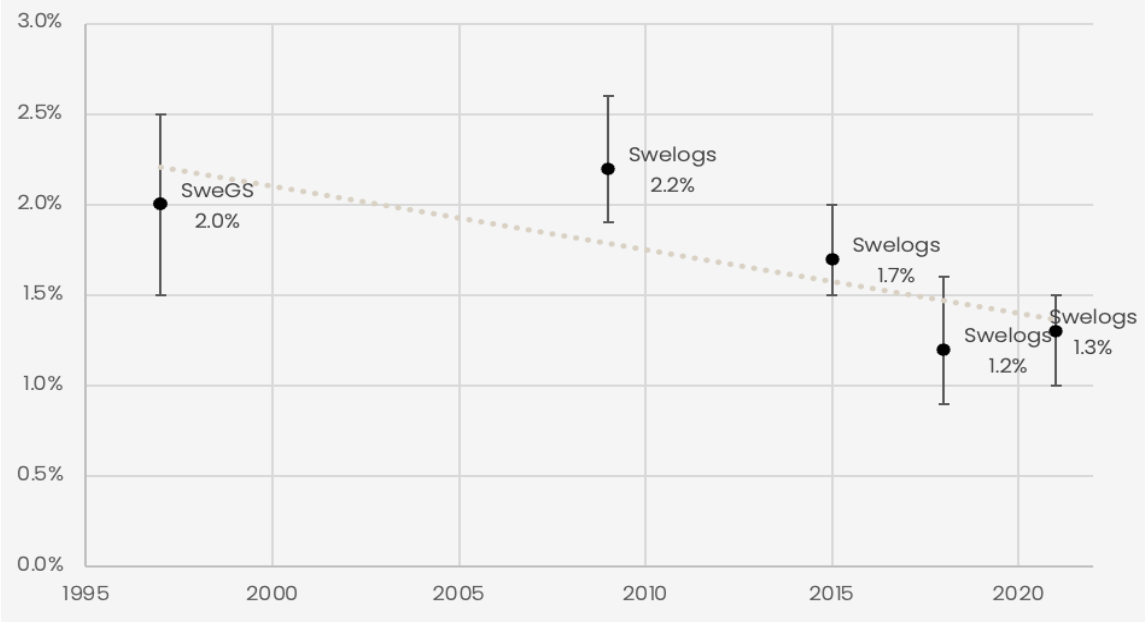
The evidence suggests that overall prevalence in the population was relatively stable between 1997/1998 and 2008/2009, at around 2 per cent, while the share of individuals who gambled at all declined from 88 to 70 per cent. This indicates that gambling problems during the early 2000s may have become concentrated within a somewhat smaller group of active gamblers.

The development of problem gambling in Sweden, 1997–2021

When the first wave of Swelogs was conducted in 2008/2009, the share of problem gamblers was 2.2 per cent, according to the PGSI 3+ measure. During the period 2008/2009–2018, this share declined markedly, from 2.2 to 1.2 per cent. Problem gambling remained at roughly the same level in 2021, with a marginal increase to 1.3 per cent, falling within the survey's statistical margin of error. The overall decline in the share of problem gamblers (PGSI 3+) since 2008/2009 is, however, statistically significant at the 95 per cent level.[14]

Chart 1. Share of Problem Gamblers in the Adult Population, 1997–2021

Problem gambling according to SOGS-R 3+ (1997/1998) and PGSI 3+ (2008/2009–2021), with 95 per cent confidence intervals.[15]



The development of severe problem gambling can be described as relatively stable over time. However, the group with severe problem gambling is small in survey samples, resulting in wide confidence intervals and therefore greater statistical uncertainty. The share of the population with severe problem gambling has ranged between 0.3 and 0.6 per cent in measurements between 1997/1998 and 2021. In SweGS 1997/1998, the share was reported as 0.6 per cent based

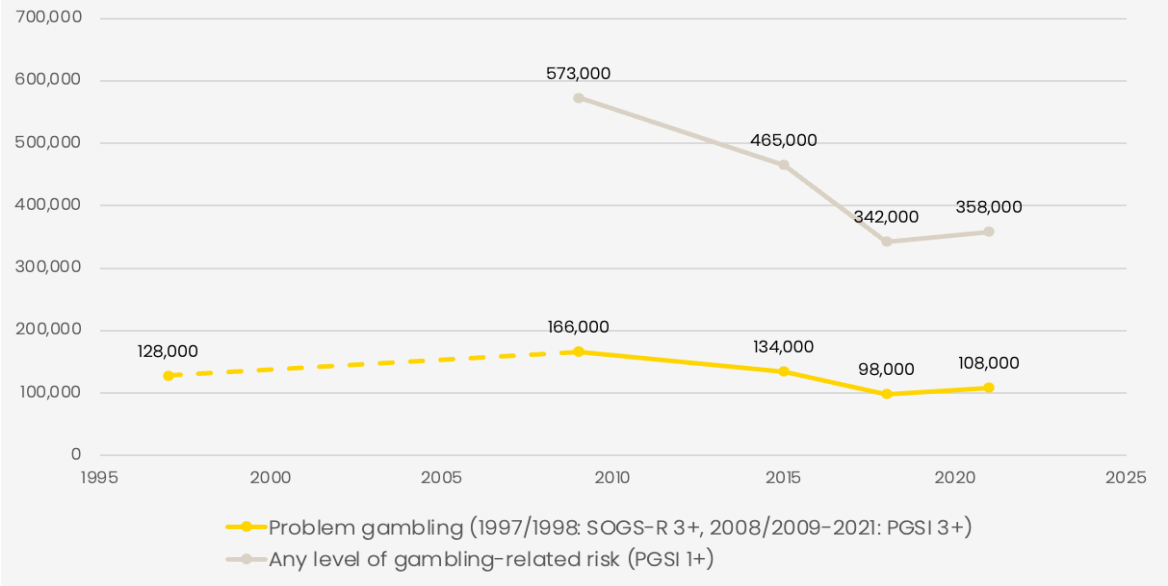
[13] Abbott, Romild & Volberg (2018). Severe problem gambling corresponds to SOGS-R 5+ and PGSI 8+, respectively.
[14] Source: Swelogs, the Swedish Public Health Agency.
[15] Source: Swelogs, the Swedish Public Health Agency; and Rönnberg et al. 1999.

on SOGS-R, while Swelogs 2008/2009 estimated it at 0.3 per cent based on PGSI. Thereafter, the level has varied between 0.4 and 0.6 per cent, with no statistically significant changes between survey waves. Given the change in methodology between the SweGS study in 1997/1998 (based on SOGS-R) and the Swelogs studies (based on PGSI), as well as calibration studies indicating that SOGS-R tends to yield higher shares in the most severe categories, this suggests that the prevalence of severe problem gambling has remained relatively stable over recent decades.

In absolute terms, the pattern of a declining trend in problem gambling is reinforced when using broader measures. Despite substantial population growth in Sweden over the period, the estimated number of individuals with problem gambling (PGSI 3+) has decreased. Between 2008/2009 and 2021, the number of problem gamblers declined by approximately 57,000 individuals, corresponding to a reduction of around 35 per cent. Compared with 1997/1998, the number in 2021 is estimated to be around 20,000 lower, despite the population having increased by nearly one fifth. A broader group with "any level of gambling-related risk" (PGSI 1+) has also declined markedly since 2008/2009, by an estimated 200,000 individuals or more. The decline is therefore not only relative but also absolute, indicating that problem gambling has decreased both as a share of the population and in terms of the number of individuals.[16]

Chart 2. Estimated Number of Individuals with Problem Gambling and at Risk in Sweden, 1997–2021

Point estimates, rounded to the nearest thousand individuals[17]



The share of individuals reporting that they had gambled for money in the past year, according to the national public health survey, declined from 71 per cent in 2004 to 56 per cent in 2022. The

[16] Source: Swelogs, the Swedish Public Health Agency; Rönnberg et al., 1999; Statistics Sweden (SCB); and own calculations.

[17] Source: Swelogs, the Swedish Public Health Agency; Rönnberg et al., 1999; Statistics Sweden (SCB); and own calculations. The calculations refer to the age range 16–87 years, corresponding to the coverage in Swelogs 2018 and 2021. Point estimates are rounded to the nearest thousand. Confidence intervals (95 per cent) for PGSI 3+ were 143,000–196,000 individuals in 2008/2009 and 83,000–125,000 individuals in 2021, indicating that the downward trend is statistically significant at the 95 per cent level. For the broader risk group (PGSI 1+), the corresponding intervals were 535,000–618,000 individuals in 2008/2009 and 317,000–400,000 individuals in 2021, indicating that this decline is also statistically significant at the 95 per cent level. The years shown on the x-axis for SweGS 1997/1998 and the first Swelogs wave (2008/2009) refer to the year in which most of the data collection took place. SweGS was conducted between November 1997 and January 1998 and is therefore reported as 1997, while Swelogs EP1 was conducted between October 2008 and April 2009 and is reported as 2009. In the SweGS survey, no prevalence measure corresponding to the broader risk measure PGSI 1+ used in the Swelogs studies was available. This measure includes not only "problem gambling" (i.e. individuals with gambling problems or at elevated risk) but also individuals with "low risk" of problem gambling, in line with the definitions used by the Swedish Public Health Agency.

decline is particularly pronounced among younger age groups. Between 2009 and 2021, the share of individuals who gambled decreased by around 12 per cent, while the share of problem gamblers (PGSI 3+) declined by approximately 35 per cent over the same period. The decline in problem gambling is therefore substantially larger than the reduction in overall gambling participation, suggesting that the trend cannot be explained solely by fewer individuals gambling.

The risk of problem gambling is strongly associated with individual vulnerability factors, such as mental health conditions including depression or personality disorders, risky alcohol use, and adverse childhood experiences such as parental absence, instability, or emotional insecurity.[18] Changes in such factors over time may influence the prevalence of problem gambling. For example, the share of young people aged 16–29 reporting "risky alcohol consumption" in the national public health survey declined from 37 per cent in 2004 to 22 per cent in 2024.[19]

Among individuals who have gambled online in the past year, the share with problem gambling (PGSI 3+) has declined over time. In Swelogs 2008/2009, the share was 12 per cent, decreasing to 6 per cent in 2015 and approximately 4 per cent in 2018 and 2021. The risk level among online gamblers is thus around one third of the level in 2008/2009. The decline suggests that the development is not driven solely by changes in overall gambling participation in the population, but also by changes in the composition of online gamblers, as well as by market maturity, shifts in the product mix, social trends, and institutional conditions.

Developments following the re-regulation of the gambling market in 2019 do not indicate any clear level shifts in the population. Changes in problem gambling between 2018 and 2021 are small and fall within the surveys' confidence intervals, in line with the Swedish Agency for Public Management's evaluation of the gambling legislation reform.[20]

A historical example of how social trends can co-vary with the development of problem gambling is the poker boom of 2003–2008. The global expansion of online poker accelerated following the 2003 World Series of Poker, when an unknown amateur player who had qualified through a low-stakes online tournament won the main event.[21] The rapidly growing interest in online poker coincided with an increase in problem gambling among young men (aged 18–24) in Sweden during the period 1997/1998–2008/2009. While causal conclusions must be drawn with caution, the period illustrates how changes in the social diffusion and attractiveness of gambling can co-vary with variations in problem gambling within specific groups.

[18] See, for example, Jonsson et al., 2003, the Swedish Public Health Agency, 2015, and Sundqvist & Rosendahl, 2019.

[19] Source: the Swedish Public Health Agency.

[20] The Swedish Agency for Public Management, 2022. A similar pattern is observed in the national public health survey following the re-regulation: the share of individuals aged 16–84 with "risky gambling behaviour", based on a simplified screening measure, declined marginally from 3.7 per cent in 2018 to 3.4 per cent in 2024. Source: The Swedish Public Health Agency.

[21] The player was Chris Moneymaker, which gave rise to the term the "Moneymaker effect", used to describe the sharp increase in interest in online poker during the subsequent period.

3. The Relationship Between Problem Gambling and Gambling Marketing, Supply, and Market Access

The development of problem gambling over time, as reflected in SweGS and Swelogs, raises questions about which structural factors may have contributed to these changes. The subsequent analysis focuses on three central dimensions of developments in the gambling market: gambling marketing, supply, and market access. These factors have often been assumed, in both research and policy discussions, to influence the risk of problem gambling by shaping exposure to risk, the gambling environment, and the practical barriers to gambling. Analysing how these dimensions have evolved in relation to the prevalence of problem gambling allows for an assessment of the extent to which such relationships are supported by empirical evidence in the Swedish context.

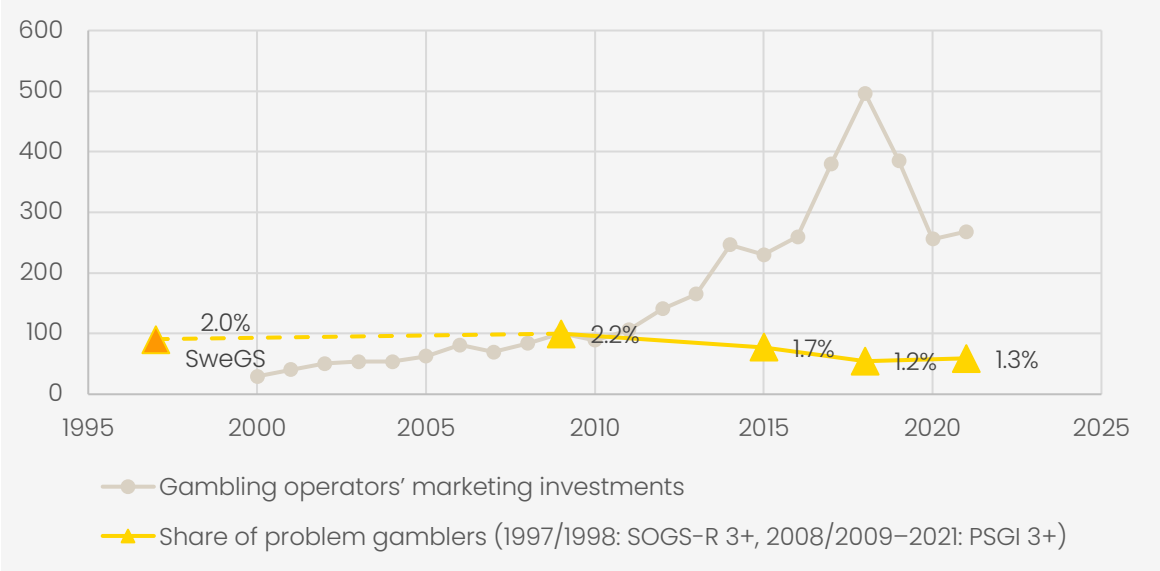
Relationship between gambling marketing and the development of problem gambling

The development of marketing investments in the gambling industry over the 2000s has been characterised by considerable fluctuations. Between 2000 and 2024, investments increased approximately ninefold in real terms.[22] The increase was particularly pronounced during the period 2013–2018, peaking in 2018 – the year preceding the re-regulation of the Swedish market and the introduction of the licensing system. The casino segment accounted for a substantial share of this expansion, more than tripling its marketing investments up to 2018. Following the licensing reform in 2019, investments declined markedly and have since stabilised at a lower level.

When this development is compared with trends in problem gambling, no straightforward positive relationship emerges. The overall picture – where marketing investments and the share of problem gamblers are indexed with 2009 as the base year – rather indicates a negative correlation over the period. Marketing investments increased sharply during the 2010s, peaking in 2018 at nearly five times the 2009 level (index around 500), before declining but remaining at a substantially higher level than prior to the re-regulation. At the same time, the share of problem gamblers (PGSI 3+) declined from 2.2 per cent in 2008/2009 to 1.3 per cent in 2021. There is thus no indication in population data that the sharp expansion in advertising in the years preceding the re-regulation was accompanied by a corresponding increase in problem gambling.

[22] Source: Kantar Sifo; Statistics Sweden (SCB); and own calculations.

Chart 3. Gambling Operators' Marketing Investments and the Share of Problem Gamblers
Indexed values, where 2009 = index 100[23]



This does not, however, imply that marketing is without importance. As early as the 2008 Swedish Gambling Inquiry (SOU 2008:124), it was noted that robust scientific evidence was lacking to determine the extent to which gambling advertising increases the risk of problem gambling in the population, although it was considered plausible that intensive marketing may influence risk levels.[24] In the 2017 Gambling Licensing Inquiry (SOU 2017:30), conducted ahead of the re-regulation of the market, it was emphasised that advertising in a mature market may largely have substitution effects – players switch operator or gambling product rather than increasing their overall level of gambling.[25] This is consistent with the observation that the overall prevalence of problem gambling in the population has remained stable or declined over time, despite substantial increases in marketing.

The academic literature provides further support for a nuanced interpretation. Longitudinal analyses show that there is substantial turnover within the group of problem gamblers, with many individuals exiting the risk group over time.[26] This runs counter to simple models in which increased overall marketing mechanically and persistently raises the prevalence of problem gambling in the population. Rather, the evidence suggests that any relationships, if present, are likely to be selective, market-reallocating, and concentrated within specific risk groups.

Overall, developments in Sweden during the 2000s indicate that the substantial increase in marketing investments by gambling operators was not accompanied by a corresponding rise in problem gambling at the population level. Nor has the increase in marketing coincided with any increase in the share of individuals who gamble. The available national data therefore provide limited empirical support for a strong, direct and proportional relationship between marketing volumes and the prevalence of problem gambling. This does not preclude local or group-specific effects but indicates that the relationship is more complex than suggested by simple exposure-based models.

[23] Kantar Sifo's data are based on a selection of media, including print, television, out-of-home (OOH) advertising (indoor and outdoor advertising in public spaces), cinema, radio, and certain digital media.
[24] See SOU 2008:124, p. 159.
[25] See SOU 2017:30, Part 1, p. 728.
[26] The Swedish Public Health Agency, 2015; Abbott, Volberg & Romild, 2018.

Relationship between gambling supply and the development of problem gambling

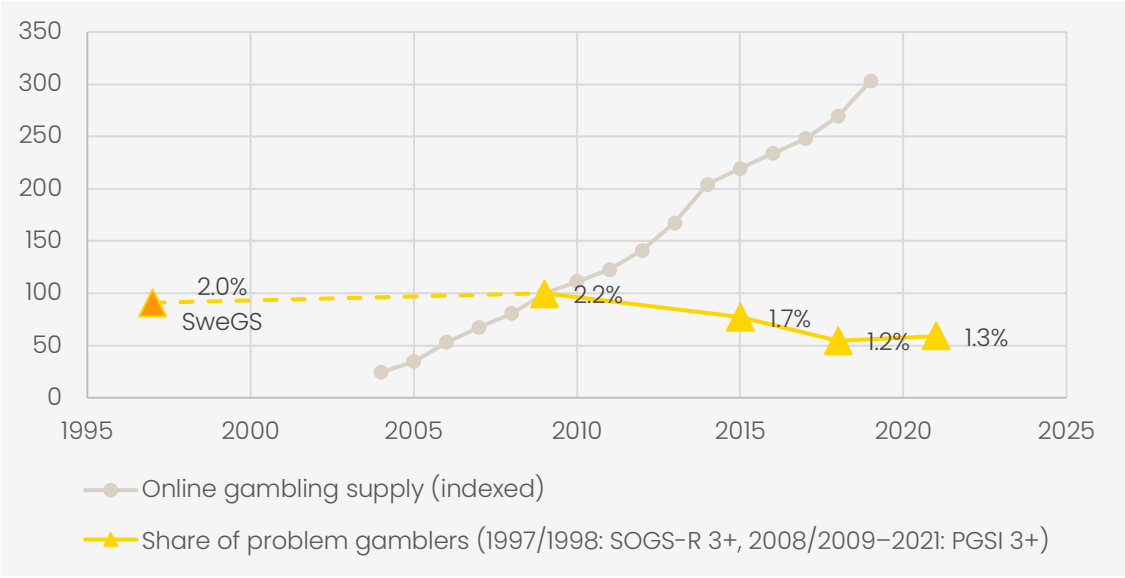
The Swedish online market has undergone a dramatic expansion in product breadth over the 2000s. Using online casino games as an indicator – selected for methodological reasons, as each casino game constitutes a distinct and countable digital product – the growth in product supply can be estimated over time. Based on reported data from the CasinoModule platform, cumulative supply growth between 2004 and 2019 exceeded 1,000 per cent, corresponding to more than a tenfold increase in the number of casino games.[27]

The expansion is also clearly visible at the operator level. Svenska Spel had a total of 16 and 19 online games in 2003 and 2004, respectively, while the number of casino games alone in the online offering exceeded 1,200 in 2020.[28] This corresponds to an overall increase of approximately 7,400 per cent between 2003 and 2020, and an average annual growth rate (CAGR) of around 29 per cent. The breadth of products in the Swedish online market has therefore increased exponentially since the first Swelogs wave in 2008/2009.

When this development is compared with trends in problem gambling, no positive relationship is observed at the population level. The overall picture – where the indexed growth of supply is compared with the share of problem gamblers – shows a clear negative correlation over the period. While the range of products has expanded manyfold, the share of problem gamblers declined from 2.2 per cent in 2008/2009 to 1.3 per cent in 2021. The substantial expansion of game portfolios and the number of gambling products have therefore not been accompanied by any corresponding increase in the prevalence of problem gambling in the population.

Chart 4. Online Gambling Supply and the Share of Problem Gamblers

Indexed values, where 2009 = index 100.[29]



[27] The number of games and new launches on CasinoModule was reported relatively consistently in the annual reports of the owning company – initially Cherry, subsequently Betsson, and later NetEnt – which has enabled the construction of a time series for the supply development. The model is based on annual new introductions and the total game portfolio, with the assumption that older games are not phased out over time. The model is likely to underestimate actual market growth after 2015, when the market became more fragmented and many new studios and game aggregators appeared.

[28] Source: Svenska Spel annual reports (2004 and 2020).

[29] Source: Swelogs, the Swedish Public Health Agency; annual reports from Cherry, Betsson and NetEnt; and own calculations.

At the same time, the prevalence of problem gambling varies across different gambling products. The share of problem gamblers is highest among those who have played casino games/gaming machines or poker, while lotteries, bingo, horse betting, and sports betting show lower levels.[30] In absolute terms, however, lotteries dominate, which – beyond their widespread participation – indicates that individuals at elevated risk often engage in multiple gambling products.[31] The relationship between gambling products and problem gambling can be interpreted in several ways: it may reflect selection, whereby high-risk individuals are more likely to engage in certain types of gambling, as well as exposure effects, where the structural characteristics of games – such as speed and accessibility – influence the development of risk.

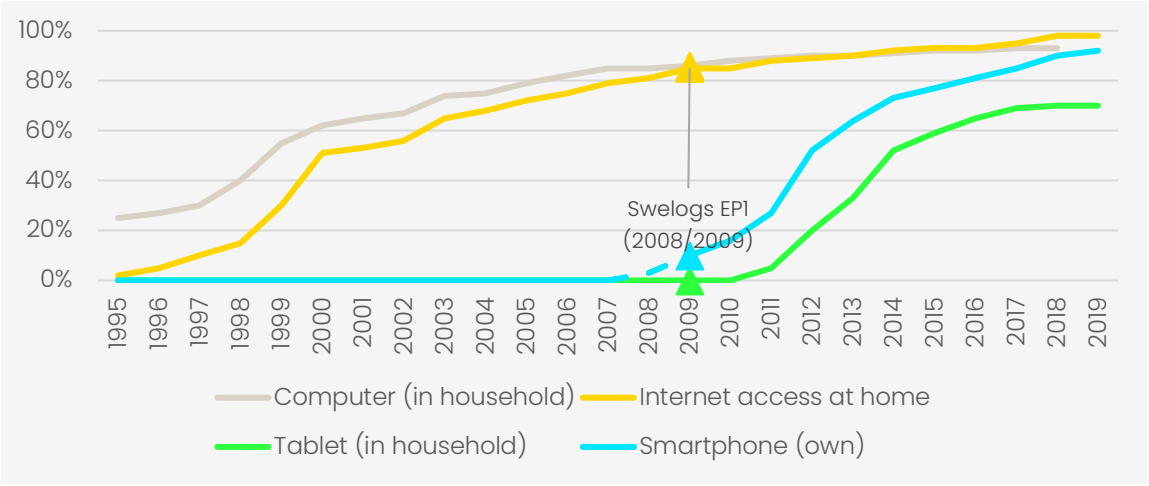
Overall, developments in Sweden indicate that the substantial expansion of gambling supply during the 2000s does not coincide with any increase in problem gambling at the population level. With the emergence of the online channel, high-frequency and more continuous forms of gambling have also become more prominent. However, the prevalence of problem gambling was at a comparable level even before online casinos and other digital high-frequency gambling products became widely established in Sweden. While the composition of supply and substitution between gambling products may influence the distribution of risk within the gambling population, the overall development suggests that factors other than the scale and composition of supply have been more decisive for the level of problem gambling over time.

Relationship between market access and the development of problem gambling

Technical access to the gambling market has increased substantially since the early 2000s. Internet penetration in households rose from 51 per cent of the population in 2000 to 85 per cent in 2010 and 99 per cent in 2020. Over the same period, the share of households with a computer increased gradually, and from around 2010 the diffusion of smartphones and tablets accelerated. Overall, this resulted in a major increase in the technical ability to gamble online.

Chart 5. Technical Availability of the Online Channel, 1995–2020

Share of the population aged 12 and over with access to a computer, internet, tablet, and smartphone.[32]



[30] Source: Swelogs, the Swedish Public Health Agency. The finding that problem gamblers are concentrated in online poker, gaming machines, and casino games is also supported by data from helplines. See SOU 2008:124 and SOU 2017:30.

[31] Own calculations based on Swelogs, the Swedish Public Health Agency, and population data from Statistics Sweden (SCB).

[32] Source: Swedes and the Internet, the Internet Foundation. Smartphone penetration for 2008–2009 is estimated (dashed segment of the line).

In this analysis, access to the gambling market is operationalised through a search cost index, where search costs are defined as the time and effort required to identify and initiate a gambling transaction. As gambling shifted from physical outlets to the online channel, these costs declined markedly for consumers. The index shows that access increased by nearly 60 per cent between 2005 and 2021, with a clear acceleration after 2015 in line with the growing diffusion of smartphones and the maturation of the online market. In parallel, internet penetration has become nearly universal, and market opening hours have effectively shifted to continuous access, 24 hours a day.

Under a simple availability hypothesis, such developments would be expected to lead to substantially higher levels of problem gambling. The 2008 Gambling Inquiry (SOU 2008:124) noted that availability "is generally considered to increase the risk of gambling problems" but also emphasised that the relationship is complex and that there are cases where prevalence has not increased, despite growth in both availability and overall gambling. The evidence base was described as limited, and no robust empirical support for a proportional relationship could be established.[33]

In the 2017 Gambling Licensing Inquiry (SOU 2017:30) – which formed the basis for the re-regulation – it was noted that increased availability in an early market phase may lead to more gambling problems, but that this is often followed by an adjustment process, in which prevalence stabilises or returns towards earlier levels.[34] The focus of policy therefore shifted from restricting volume and supply per se to ensuring high channelisation and strong consumer protection mechanisms within a regulated market.

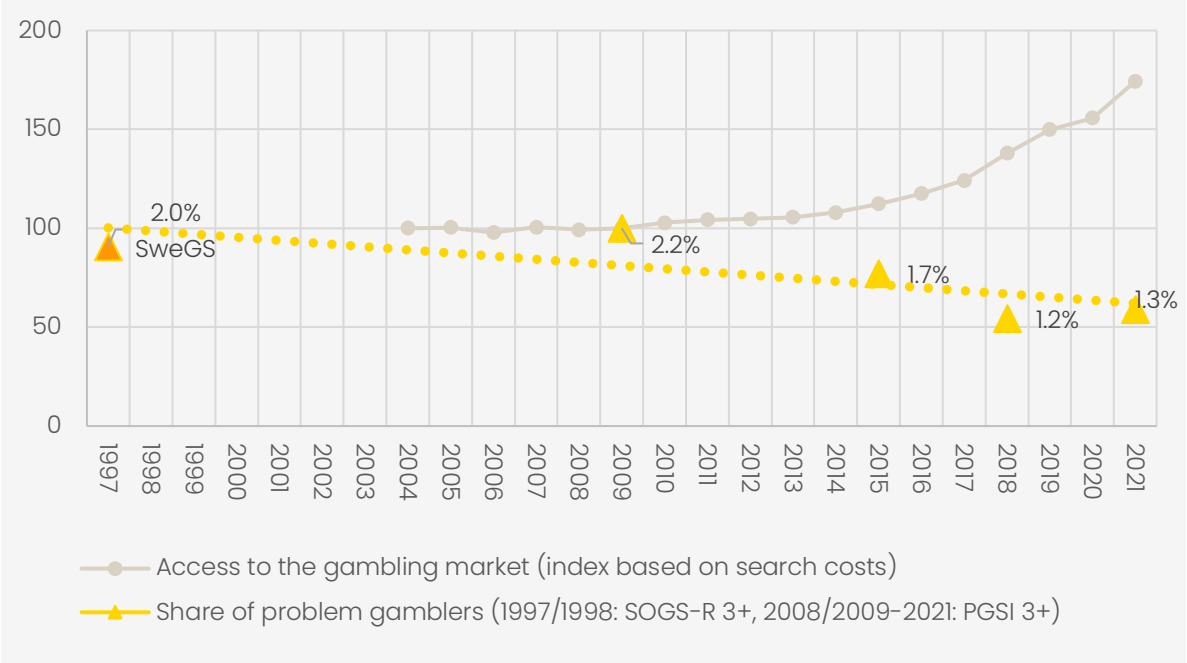
The academic literature presents a similar picture. Studies based on Swedish data show that the share of problem gamblers has been relatively stable or declining during periods when both consumption and technical access have increased, challenging both the "total consumption theory" and a strict "availability theory".[35]

When the search cost index is compared with the prevalence of problem gambling, this complexity becomes apparent. Despite a substantial increase in technical access to the gambling market since 2005, the share of problem gamblers (PGSI 3+) declined from 2.2 per cent in 2008/2009 to 1.3 per cent in 2021. The relationship over the period was therefore negative at the aggregate level.

[33] See SOU 2008:124, p. 159.
[34] See SOU 2017:30, Part 1 p. 597.
[35] Abbott, Romild & Volberg, 2018.

Chart 6. Market Access Based on Search Costs and the Share of Problem Gamblers

Indexed values, where 2009 = index 100.[36]



This does not imply that accessibility to gambling is without significance. Increased technical access may be a necessary condition for problem gambling to accelerate in certain phases, for example during the poker boom in the early 2000s. However, developments in Sweden indicate that access is neither a sufficient explanation nor the most important driver of changes in prevalence. The relationship between technical access and problem gambling appears to be non-linear, context-dependent, and conditioned by factors such as market structure, individual vulnerability, social trends, and institutional conditions. Overall, the evidence suggests that digitalisation has substantially lowered the barriers to entering the gambling market, but that problem gambling has not followed this development.

[36] The accessibility index is calculated as T = 1/S, where T denotes the accessibility index and S the total, share-weighted search cost in the online and offline gambling markets, respectively. Accessibility to the land-based channel is estimated based on the number of outlets operated by Svenska Spel, as reported in annual reports, combined with the estimated average travel time to these outlets plus a standardised waiting time of five minutes per gambling transaction. The average lead time for an online gambling transaction is assumed to be two minutes. Time costs are converted into a monetary opportunity cost using average real hourly wages for each year, based on data from the Swedish National Mediation Office and Statistics Sweden.

4. Fragmentation of the Gambling Market and Its Impact on Problem Gambling

The gambling market is not a uniform structure but consists of parallel segments: a regulated white market, a grey market with operators outside the Swedish licensing system but with some visibility, and a black market operating entirely outside regulation and oversight.[37] This fragmentation may influence both the level and nature of problem gambling, as risk, consumer protection, and regulatory oversight differ substantially across segments.

The institutional structure of the gambling market: white, grey and black markets

Operators holding a Swedish gambling licence are permitted under the Gambling Act (2018:1138) to offer and market gambling to Swedish consumers, subject to strict regulation. They are subject to a requirement of moderation in marketing and a duty of care, which includes obligations to monitor gambling behaviour, identify risks, and take action when signs of problem gambling are detected. Primary supervision of licensed operators is exercised by the Swedish Gambling Authority, while responsibility for oversight of marketing is shared with the Swedish Consumer Agency.

At the same time, gambling also takes place through irregular channels. These can analytically be divided into a grey and a black market. The grey market consists of established foreign operators that accept Swedish customers but lack a Swedish licence and are therefore not permitted to target the Swedish market, for example through marketing. These operators are not subject to the Swedish duty of care or to supervision by the Swedish Gambling Authority. From 2027 onwards, the targeting criterion in the Gambling Act is expected to be replaced by a participation criterion, which would broaden the scope of application and limit the ability of grey market operators to operate outside the licensing system.[38]

The black market refers to unlicensed and often anonymous operators. In some cases, such activities may also be linked to organised crime or used for financial crimes such as money laundering.[39] The substantial expansion of foreign-based online operators during the 2000s, across both the grey and black markets, contributed to the view that the previous monopoly-based system was insufficient to maintain effective market control, which was a key driver behind the introduction of the licensing system in 2019.[40]

[37] Swedish National Audit Office, 2024.
[38] Ministry of Finance (DS 2025:23).
[39] See SOU 2017:30, pp. 329, 475.
[40] Government Bill 2017/18:220, p. 81. See also the Swedish Agency for Public Management, 2022 and the Swedish National Audit Office, 2024.

Table 1. Differences Between Segments of the Gambling Market

	White market	Grey market	Black market
Operators	Operators with a Swedish gambling licence	Unlicensed in Sweden but established within the EEA or third countries	Unlicensed and often anonymous (may in some cases be linked to organised crime)
Legal activity (under Swedish law)	Yes	Legal grey area (assessment depends on market targeting)	No
Marketing (under Swedish law)	Permitted but strictly regulated (moderation requirement, etc.)	Not permitted (marketing targeting Sweden is prohibited)	Not permitted (marketing targeting Sweden is prohibited)
Duty of care and consumer protection (under Swedish law)	Yes (responsible gambling measures, self-exclusion, deposit limits, etc.)	No under Swedish law (may be subject to regulation in another jurisdiction)	No
Control and supervision	High, via the Swedish Gambling Authority	Limited (no Swedish supervision)	Very limited
Pays gambling tax in Sweden	Yes	No	No
Accessibility for Swedish consumers	Yes	Yes (de facto online)	Yes (de facto online)
Ability to prevent problem gambling	High	Limited	Very limited

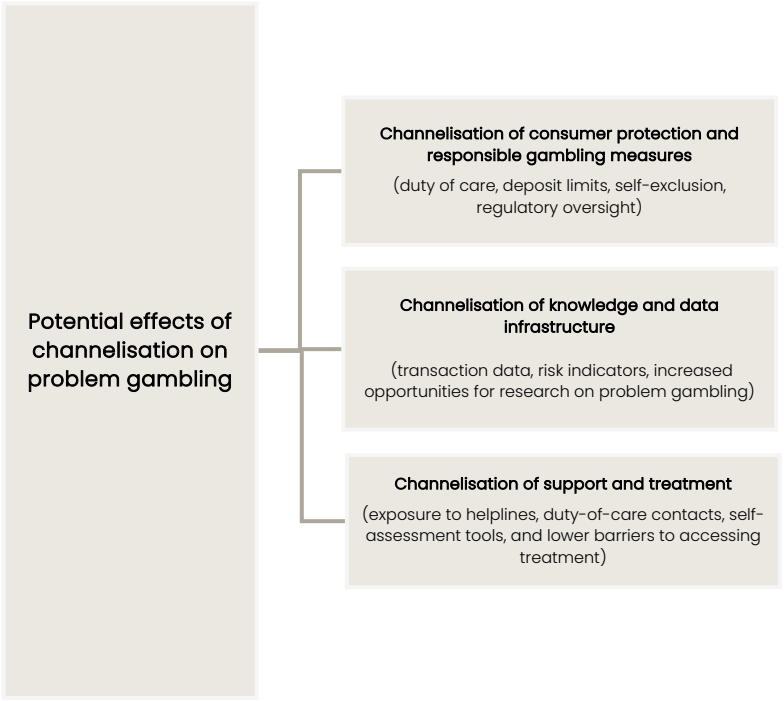
Market substitution, channelisation, and effects on problem gambling

Against the backdrop of institutional differences between segments of the gambling market, Figure 2 illustrates how market substitution and channelisation may influence problem gambling through different functional mechanisms. As gambling is increasingly channelled towards the regulated market, the effectiveness of duty-of-care measures, deposit limits, and self-exclusion is strengthened, thereby shaping the risk environment for consumers. Conversely, substitution from the white market to the grey or black market weakens or eliminates these protective mechanisms.

Channelisation to licensed operators also matters for knowledge generation, as transaction data, risk indicators, and research opportunities are largely produced within the regulated market. In addition, exposure to support and treatment interventions is affected, implying that the degree of channelisation can influence the scope for prevention, early identification, and relapse prevention.

Figure 2. Functional Mechanisms of Channelisation for Risk Reduction

Potential mechanisms through which channelisation to the regulated gambling market may influence problem gambling



The emergence of black and grey markets in economic theory

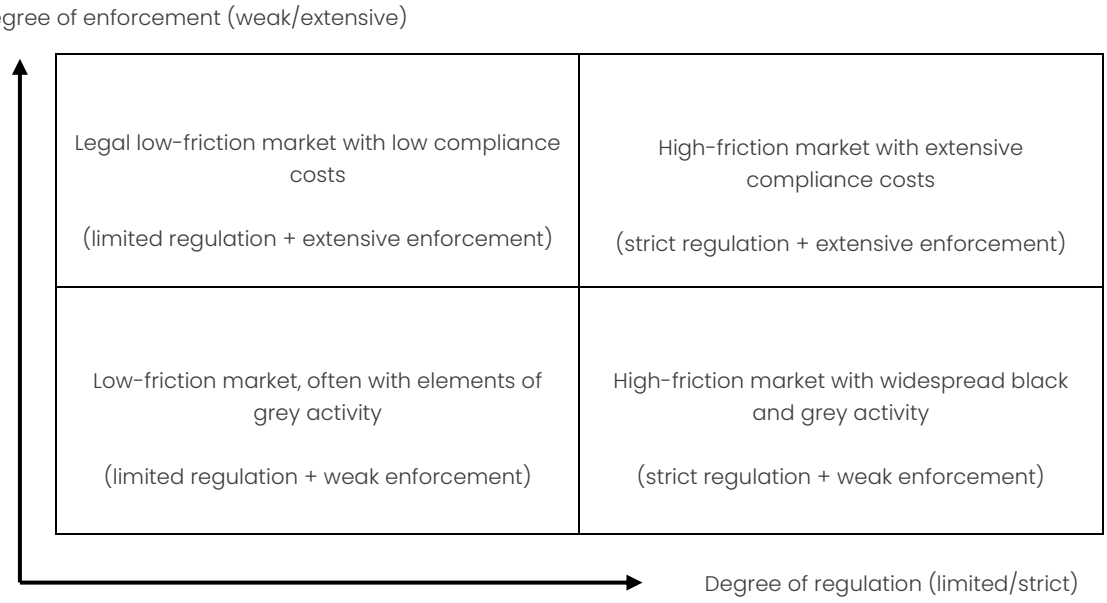
In economic theory, criminal activity is analysed as a form of economic behaviour in which actors weigh expected returns against expected costs. From this perspective, the extent of illegal activity depends on its expected relative return. On the revenue side, this is driven by the ability to offer products or conditions that are not permitted in the regulated market, while on the cost side it is largely determined by the risk of detection and sanctions.[41]

Black and grey markets tend to expand when regulation is strict – thereby increasing compliance costs in the white market – while enforcement is weak or difficult to sustain.[42] In such a setting, a relative excess return emerges for actors operating outside the regulatory framework. Figure 3 illustrates this relationship: the combination of strict regulation and weak enforcement is particularly conducive to the emergence of extensive black and grey markets.

Applied to the gambling market, this implies that irregular operators may have a revenue advantage by offering gambling products without, for example, deposit limits, duty-of-care obligations, or gambling taxes, while their costs remain lower if the risk of detection and sanctions is limited.[43] If relative profitability in these segments increases, the irregular market share tends to expand and channelisation to decline. Conversely, lower relative profitability – through reduced compliance costs in the licensed market or more effective enforcement – leads to contraction and increased channelisation.

[41] Becker, 1968.
[42] Schneider & Enste, 2000.
[43] Swedish National Audit Office, 2024.

Figure 3. Theoretical Market Outcomes Under Different Levels of Regulation and Enforcement
Black markets tend to expand when strict regulation is combined with insufficient enforcement.



The factors most often highlighted as particularly important for consumers' gambling on the unlicensed market are the availability of bonus offers, more attractive odds, and the fact that the self-exclusion service Spelpaus does not apply to gambling with unlicensed operators.[44] Differences in bonus structures and odds-setting between the white market and the grey and black markets constitute, in economic terms, a deviation from the so-called law of one price. If identical or closely substitutable products are offered at different prices – for example through bonus incentives or more favourable odds – this creates incentives for consumers to shift their gambling to the market where the expected return is highest.

Regarding self-exclusion, nearly half of individuals who have self-excluded via Spelpaus.se report that they have also gambled on unlicensed sites.[45] The ability to circumvent the self-exclusion function therefore weakens the preventive effectiveness of the system. In practice, this may result in individuals at risk not receiving the intended break from gambling, increasing the likelihood that problems worsen or that former problem gamblers relapse.

[44] See the Swedish Agency for Public Management, 2022, pp. 89–93.
[45] Håkansson & Komzia, 2023.

5. Evidence on Risk Reduction and Preventive Measures

This concluding chapter provides an overview of established preventive measures and interventions, with a focus on what the current research indicates. The review is not exhaustive but shows that effective tools exist, particularly when combined within a coherent strategy. At the same time, important knowledge gaps remain, including regarding long-term effects, the optimal design and combination of interventions, and their cost-effectiveness from an economic perspective.

The overall evidence base is, however, not unequivocal. The Swedish Public Health Agency notes that several international reviews over the past five years have found limited support for preventive interventions in reducing the negative consequences of gambling. A so-called umbrella review – a review of reviews – found that most evaluated measures showed no effect.[46] Against this background, preventive interventions should be assessed with caution and with a clear distinction between measures supported by empirical evidence and those primarily motivated by normative or theoretical considerations.

Market models and problem gambling in other Nordic countries

The Nordic countries historically shared a monopoly model, in which gambling operations were run by the state to finance public-interest purposes and limit problem gambling. However, with the rapid expansion of online gambling, the countries have chosen different regulatory paths.

Denmark introduced a licensing system in 2012 and Sweden in 2019, opening the market to private operators within a regulated framework. This has been associated with higher channelisation and has enabled key consumer protection tools, such as national self-exclusion registers. Norway has retained a state monopoly, while Finland has recently adopted parliamentary legislation to transition from a monopoly to a licensing system, with implementation planned for 2027. The monopoly model provides control over the regulated supply, but in both Norway and Finland, leakage to foreign-based operators has been substantial.

Sweden currently has a significantly lower prevalence of problem gambling (PGSI 3+) than its Nordic neighbours, although differences in measurement methods, survey years, and age ranges complicate direct comparisons. The share of self-excluded individuals also varies across countries and is highest in Sweden, which partly reflects differences in system design and accessibility rather than solely variations in the prevalence of problem gambling. A joint Nordic prevalence study is currently underway and is expected to provide more comparable data across the countries.[47]

[46] The Swedish Public Health Agency, 2024.
[47] The Swedish Gambling Authority, 2025a.

Table 2. Gambling Market Models and Problem Gambling in Nordic Countries[48]

	Sweden	Denmark	Norway	Finland
Model for online gambling	Licensing system	Licensing system	Monopoly	Monopoly (licensing system from 2027)
Channelisation rate	85 % total 72–82 % for online casino	91,5 % for online gambling	91 % total 75 % for online gambling	48 % total 36 % for online gambling
Share of self-excluded individuals (of the population aged 18+)	Spelpaus 1,6 % (2026)	ROHUS 1,2 % (2024)	Norsk Tipping 0,7 % (2019)	Veikkaus 0,6 % (2021)
Gambling tax (online gambling)	22 % of GGR	28 % of GGR	No GGR tax (state monopoly)	From 2027: 22 % of GGR
Problem gambling (PGSI 3+)	1,3 % (2021)	4,4 % (2021)	4,5 % (2019)	3,8 % (2024)

The role of regulation and market design

The design of regulation and the institutional structure of the market are key determinants in preventing problem gambling at the population level. Unlike individual-level interventions, these measures shape the structural conditions of gambling: price levels, product supply, accessibility, and market and competitive dynamics. Preventive measures therefore need to address risks of problem gambling without undermining the competitiveness of the regulated market, where supervision, knowledge generation, and preventive tools can be effectively applied.

In the Swedish Public Health Agency's 2016 research review, only one study was identified on the effects of gambling taxes on gambling behaviour, relating to a closed system of riverboat casinos in Illinois.[49] The study did not analyse effects on problem gambling, and its relevance for an open, digital, and internationally competitive gambling market is therefore very limited. The evidence base on the direct effects of gambling taxes on problem gambling is thus weak. More broadly, economic research shows that mobile tax bases – such as corporate profits, capital, or digital services – tend to respond strongly to tax levels through geographic relocation, tax planning, or market substitution.[50]

In addition to tax levels, bonus conditions also affect price formation and, consequently, where gambling takes place.[51] In practice, bonuses function as discounts that reduce the effective price of gambling. In Sweden, bonus offers are limited to a single welcome offer per player and licence.[52] The Swedish Agency for Public Management's evaluation of the re-regulation finds that there is a degree of policy tension between bonus regulation and the objective of achieving

[48] Sources for the channelisation rates are the Swedish Gambling Authority, 2025b (Sweden), H2 Gambling Capital via the Danish Gambling Authority, 2025 (Denmark), the Norwegian Gambling and Foundation Authority, 2025 (Norway), and Veikkaus' half-year report for 2025 (Finland). The share of self-excluded individuals has been calculated based on population statistics from the national statistical agencies in each country, as well as data from Spelpaus.se (Sweden), the Danish Gambling Authority, 2025, Kraus et al., 2022 (Norway), and Veikkaus' annual report 2021 (Finland). Data on problem gambling (PGSI 3+) are drawn from Swelogs, the Swedish Public Health Agency (Sweden), the Danish Gambling Authority, 2022 (Denmark and Norway), and THL (Finland).

[49] The Swedish Public Health Agency, 2016.

[50] See, for example, de Mooij and Ederveen, 2008.

[51] See SOU 2017:30, part 1, pp. 736–740. See also Rønde and McDonald, 2025.

[52] Gambling Act (2018:1138), Chapter 4, Section 9.

high channelisation, as unlicensed operators – unlike licensed ones – are able to offer recurring bonuses.[53] The Gambling Licence Inquiry (SOU 2017:30) emphasised that a ban on bonuses would be unsustainable, as it would make licensed gambling operators significantly less competitive compared with illegal operators.[54] No causal studies directly analysing the relationship between bonus regulation and the development of problem gambling have been identified in the research literature.

Internationally, regulatory models have increasingly evolved towards systems based on duty-of-care obligations, whereby operators are required to monitor, identify, and act on risky behaviours. A review of 22 European jurisdictions in 2022 found that 11 countries had, at that time, a statutory duty of care, including requirements for risk monitoring, data-driven interventions, and documentation.[55]

Duty-of-care-based systems raise questions regarding stability, clarity, and legal certainty. In Sweden, criticism has been raised concerning ambiguities around which gambling products are permitted, how the duty of care should be interpreted, and which measures are considered proportionate. The Swedish National Audit Office has pointed to the need for clearer guidance, improved follow-up, and more consistent application in supervision.[56] A lack of clarity may create uncertainty for licensed operators and, in the longer term, affect investment incentives and competitive neutrality.

[53] The Swedish Agency for Public Management, 2022.
[54] See SOU 2017:30, Part 1, p. 738.
[55] Meerkerk, 2022.
[56] The Swedish National Audit Office, 2024.

A STABLE REGULATORY FRAMEWORK WITH FLEXIBILITY AND TECHNICALLY ADVANCED MICRO-LEVEL MEASURES

Interview with David Sundén, PhD in Economics and expert in taxation and regulatory policy

David Sundén has extensive experience in taxation and regulatory policy, including work on the Swedish re-regulation of the gambling market. He starts from the premise that, in economic terms, problem gambling constitutes a form of externality – that is, a cost not fully borne by the individual but partly imposed on others. In a cross-border gambling market, however, the scope for traditional economic policy instruments is limited:

"It is an open digital market. It is not possible to tax away the externalities in the gambling market without undermining the market itself."

Instead, Sundén emphasises a framework based on core protective mechanisms – self-exclusion, deposit limits, and continuous monitoring of gambling behaviour – without detailed regulation. Market dynamics evolve rapidly due to technological change and new business models, and a highly granular regulatory framework therefore risks becoming obsolete. Regulation should, in his view, be robust but flexible.

He is, for example, sceptical of treating different types of gambling as fundamentally distinct risk categories, and uses an analogy with alcohol to illustrate his reasoning:

"We tend to think that spirits are the most harmful because of a historical experience going back to the nineteenth century, when spirits were the cheapest option and widely consumed. But in principle, they are not more harmful than wine. It is still alcohol."

According to Sundén, severe harm outcomes are ultimately linked to behaviour rather than to any specific product category. In this context, he also highlights the rapid progression of gambling-related harm:

"The transition from no problems at all to very serious problems can happen very quickly. It can occur within a month, and this requires the ability to detect early signs of problematic patterns in gambling behaviour."

This, he argues, underscores the importance of early and data-driven risk identification. He also calls for more research on how individuals move into and out of problem gambling, particularly studies of those who have self-excluded through Spelpaus and the factors shaping their subsequent trajectories.

According to Sundén, the main lessons from other countries are largely cautionary. He points to Belgium as an example of a regulatory model in which tax structures with direct price effects and strict restrictions risk distorting the market and driving consumers towards unregulated operators:

"The main lesson for Sweden is rather what to avoid. There is no country that stands out as clearly superior."

Overall, he considers that the Swedish regulatory framework is broadly functioning: tax revenues have been maintained, and problem gambling has not increased. At the same time, there is scope for improvement, particularly through better empirical knowledge, clearer analysis of channelisation, and more effective methods for early risk identification and prevention within a flexible regulatory framework.

The role of technical safeguards and digital tools

Technological developments have enabled a range of digital tools to prevent or mitigate problem gambling. Their effects vary across measures, and differences in design and implementation can be decisive. Technical safeguards appear to be most effective when combined with high market channelisation and limited opportunities for circumvention.

Pre-commitment tools, whereby players set limits on deposits, losses, or playing time in advance, have shown some effect in reducing financial risk-taking, particularly among high-intensity gamblers.[57] The effect is likely to be greatest when limits are easy to use, difficult to increase impulsively, and when default options are available.[58] At the same time, voluntary uptake is often low, and informational interventions do not appear to increase usage to any significant extent.[59] The technical effectiveness of these tools therefore appears to depend on their implementation and on the extent to which their use is mandatory.

Self-exclusion systems have some empirical support, at least in terms of reach. The Swedish self-exclusion service Spelpaus had approximately 136,000 registered individuals in March 2026, corresponding to 1.6 per cent of the adult population.[60] Similar levels relative to the population have been observed in Denmark.[61] At the same time, around half of self-excluded individuals in Sweden report that they have continued to gamble despite the exclusion, typically through operators outside the licensing system.[62] Its effectiveness is therefore contingent on high channelisation and is constrained by significant opportunities for circumvention.

Warning **pop-up messages** have been shown to influence gambling behaviour in the short term, particularly when the content is personalised. However, their longer-term effects remain unclear.[63]

The evidence for **mandatory breaks** – sometimes referred to as cooling-off periods, during which players are temporarily blocked from gambling on a platform – is relatively weak. Studies suggest that players often return to previous gambling patterns after the break.[64]

AI-based systems for risk identification and real-time monitoring represent a growing area, enabling the analysis of transaction data for early intervention. Self-reported problem gambling has been shown in studies to be predicted with relatively high accuracy using AI algorithms, based on operators' transaction and behavioural data.[65] The technology is promising, but robust long-term evaluations are still lacking.

[57] Brevers et al. 2016, Auer et al. 2020.
[58] Riley, Oakes & Lawn, 2024.
[59] Auer et al. 2020.
[60] Based on figures from Spelpaus as of early March 2026 and population data from Statistics Sweden (SCB) for 2025.
[61] See table 2.
[62] Håkansson & Komzia, 2023.
[63] Bjorseth et al., 2021.
[64] Hopfgartner et al., 2023.
[65] Auer & Griffiths, 2022.

THE MECHANISMS OF PROBLEM GAMBLING, VULNERABILITY, AND THE NEED FOR STRUCTURAL PREVENTION

Interview with Jakob Jonsson, PhD in Psychology and expert in problem gambling

Jakob Jonsson is a licensed psychologist with extensive clinical experience in the treatment of gambling disorder. He has also conducted research on the dynamics of problem gambling and has been involved in the development of preventive interventions and duty-of-care models in Sweden.

Jonsson identifies three main pathways into problem gambling. One group is "rewarded into" gambling through early wins and strong experiences, which over time are followed by losses, habituation, and a chasing-losses logic. Another group uses gambling as an escape from negative emotions or life events. A third group is characterised by innate impulsivity and difficulties with self-regulation. All three groups may fall into cognitive distortions, whereby individuals overestimate their chances of winning. These processes can interact and reinforce one another over time. A central dynamic is that gambling is used to repair the problems it itself contributes to creating.

"One becomes trapped in a closed loop. It becomes isolating and shameful, and one turns to the same behaviour to try to solve problems – which in fact makes them worse."

With regard to risk profiles, Jonsson estimates that roughly half of those who develop severe problems have pre-existing vulnerabilities – such as depression, trauma, or ADHD – while the other half develop mental health issues as a result of gambling.

"It affects individuals who already have underlying problems and then exacerbates those issues. But it also creates problems in individuals who did not previously have them."

There are evidence-based treatments for gambling disorder, most notably cognitive behavioural therapy (CBT), with relatively strong research support. Despite this, Jonsson notes that only around 10–20 per cent of those with severe problems seek formal treatment. Preventive efforts therefore become crucial. He calls for a greater role for centralised systems that provide a comprehensive view of an individual's gambling behaviour and enable early risk identification. He also emphasises the need to reduce the perceived anonymity of online gambling, where even brief feedback from operators may act as a wake-up call.

"Many people feel completely anonymous – as if no one can see what they are doing."

Jonsson also highlights the importance of the gambling environment, noting that gambling formats characterised by immediate feedback and continuous exposure may amplify risk development. He further points to the interaction between the licensed and unlicensed markets. Based on his clinical experience, individuals with severe problem gambling often move between licensed and unlicensed operators. Gambling almost always begins within the licensed market, and only when control starts to deteriorate do individuals also turn to unlicensed operators. When a person self-excludes via Spelpaus, gambling with licensed operators ceases, but unlicensed operators continue to provide access and may also target this group through marketing.

"Unlicensed operators appear to fulfil a problematic role in relation to relapse, which further exacerbates the situation."

Overall, Jonsson suggests that effective prevention requires both individual-level interventions and a gambling environment in which risk identification, technical safeguards, and follow-up mechanisms interact. When negative trajectories are interrupted early, the need for more intensive interventions at a later stage is reduced.

"Here, Swedish licensed gambling operators could do much more," Jonsson concludes.

The role of psychological interventions and treatment

Psychological treatment of problem gambling is an area where the evidence base is relatively well established. However, effects vary across interventions, and long-term outcomes, cost-effectiveness, help-seeking behaviour, and large-scale implementation remain significant challenges.

There is good evidence for **cognitive behavioural therapy (CBT)** in the treatment of gambling disorder. CBT is a structured, goal-oriented form of therapy that focuses on identifying and modifying dysfunctional patterns of thought and behaviour. Meta-analyses show that CBT can reduce the extent of gambling, gambling frequency, and symptoms of addiction compared with control groups.[66] The effects are clinically relevant, and a substantial proportion of individuals show clear improvements. Structured, therapist-led treatment generally appears more effective than purely digital self-help, although digital formats increase accessibility.[67] CBT thus emerges as a first-line treatment, with the form and intensity of treatment having some influence on outcomes.

Motivational interviewing (MI) is a counselling approach that has shown positive short-term effects, with reductions in gambling expenditure and gambling frequency lasting up to one year after the intervention.[68] The long-term effects are less clear, but MI appears to work well in combination with other interventions and is often used as a complement in the treatment of problem gambling. The National Board of Health and Welfare recommends that MI be used in combination with CBT for individuals with gambling problems who have needs for motivational support.[69]

Brief interventions are short, structured counselling or feedback-based measures – often delivered as a single session – that may aim to provide advice, reduce risk, or influence motivation. This type of intervention has been shown to reduce gambling expenditure and gambling behaviour in the short term, particularly in cases of less severe problems.[70] It can be cost-effective and reach broad populations but does not replace the need for more intensive treatment in cases of more severe problems.

A study of Norwegian gamblers shows that **duty-of-care contacts** from operators, delivered via telephone or letter to players with substantial losses, reduced their gambling over a one-year period, with telephone contact having a stronger effect than written communication.[71] In 2024, the Swedish Public Health Agency described the evidence base for this type of intervention as limited, as it was based on only a single study.[72] A study of customers of Svenska Spel in the same year found, however, that duty-of-care contacts were associated with increased use of pre-commitment tools and self-exclusion.[73]

Helplines and access to **digital counselling** constitute important low-threshold interventions and can contribute to early identification and referral to treatment. However, the evidence for direct treatment effects is more limited than for structured therapy. The Swedish helpline, where

[66] Eriksen et al., 2021; Pfund et al., 2023.
[67] Eriksen et al., 2021.
[68] Yakovenko et al., 2015
[69] The National Board of Health and Welfare, 2018.
[70] Petry et al., 2008; Quilty et al., 2019.
[71] Jonsson et al., 2020.
[72] The Swedish Public Health Agency, 2024.
[73] Håkansson et al., 2024.

social services and relatives can also report a need for support, handled approximately 3,000 gambling-related contacts in 2024 and administered around 22,000 self-assessments.[74]

Screening for problem gambling in primary care may potentially enable early identification. However, there is currently a lack of robust empirical evidence that broad screening reduces gambling-related harm at the population level, and outcomes depend on follow-up and treatment capacity within the healthcare system. Individuals with problem gambling often have complex care needs due to comorbidity, and it has therefore been suggested that screening need not be universal but can instead be targeted at patients presenting with correlated symptoms such as stress, sleep problems, or anxiety/depression.[75]

[74] Source: The Swedish Gambling Helpline Annual Report 2024.
[75] Forsström & Samuelsson, 2018.

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