

The background of the slide is a photograph of a woman with dark, curly hair, wearing a red top, looking thoughtfully at a slot machine in a casino. The scene is dimly lit with colorful neon lights from the slot machine and other casino fixtures in the background.

Impact of the taxation and regulatory environment on European online betting and gaming markets

October 2025

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Purpose and context of this report

Purpose of this report

The purpose of this report is to provide an objective review of online gambling tax rates and regulatory environments across European jurisdictions and assess the evidence base for how tax and regulatory regimes can affect market dynamics such as prices to consumers, marketing and bonusing decisions made by operators and the percentage of the market captured by unregulated operators.

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

Overview of Approach

Across European jurisdictions there are a number of studies from Regulators, Industry Associations and Consultancies on the impact of regulation and tax on the online betting and gambling market. Much of the literature has focused on specific jurisdictions or factors/ outcomes (e.g. 'black market' size). This report looks to build on this prior literature by presenting balanced, data-led evidence on why and how regulatory and tax changes contribute to online market outcomes by considering (i) a representative range of European jurisdictions selected for their comparability to the UK both in terms of the nature of gambling taxation and regulation, size of gambling market, and trajectory of recent regulatory development (ii) how operators and players respond to regulatory regimes in these jurisdictions and (iii) how this influences the market size, growth, channelisation (the proportion of spend that takes place with licensed operators) and tax revenue within these jurisdictions.

Our work is primarily based on publicly available sources including data from subscription research providers including H2GC and VIXIO, local regulators and governments. In addition, we have used confidential industry member data provided to us by Betting and Gaming Council. Further details on the methodology and sources used can be found in the report Appendix. PwC has not sought to establish the reliability of third party sources or verified the information so provided. Accordingly no representation or warranty of any kind (whether express or implied) is given by PwC to any person as to the accuracy or completeness of this report.

This study has been completed during September and October 2025. While the data presented in this report aims to be the latest at the time of writing we cannot guarantee the completeness of external data at the time of publication.

Key Definitions

Throughout this report, annual data is by calendar year unless stated otherwise, "Gaming" includes online table/ casino games and slots. "Betting" includes online sports. Poker, bingo, lottery, and all retail/ land-based play are not included apart from certain case studies, where this is specifically highlighted.

The report focuses on the "Average Gambling Tax Rate", which is defined as the headline tax rate and any additional levies. It does not consider other allowable adjustments or deductions such as free bets, the applicability of VAT to online gambling, upfront licensing costs, or exemptions (e.g. regional tax breaks). We have not performed an in-depth analysis on the definition of the tax base in any of the countries reviewed nor have we always referred back to the source gambling law, secondary legislation or other regulations on which the source information is based. We express no legal opinion on gambling regulation or tax.

Our work is based on the following sources of information

Sources

Three key sources of information are used consistently across the report

1. **H2 Gambling Capital (H2GC):** used for historical market data by jurisdiction for gross win %, stakes/ turnover, GGR, and channelisation over time (2019-25)
2. **Vixio Gambling Compliance:** used for regulatory and taxation information and supplementary jurisdiction-level market data (e.g. bonusing and marketing spend)
3. **BGC member data:** used for operator – level data on bonusing and marketing spend by jurisdiction

These have been supplemented with reports from relevant regulators and associations, academic papers, broker notes, consumer surveys, macro databases and other press releases across jurisdictions listed below

Cross-jurisdiction:

- United Nations, OECD, World Bank, WorldData, Similarweb, Government Tax Revenue Agencies / Ministries of Finance, Previous PwC consumer surveys and analysis
- Operator annual reports
- Broker notes – Barclays (August 2025)

United Kingdom:

- Deal Me Out – *Black Market Evaluation Report* (Apr 2025)
- EY / Betting & Gaming Council - *The economic contribution of the betting and gaming sector: 2021-22* (Nov 2022); *The economic contribution of the betting and gaming sector: 2023* (Oct 2024)
- Frontier Economics - *The size and economic costs of black-market gambling in Great Britain* (Sept 2024).
- HM Revenue & Customs (HMRC)
- NatCen / GambleAware - *Patterns of Play Technical Report 2: Account Data Stage* (Jun 2022)
- The Behavioural Insights Team – *Assessment of consumer demand for gambling industry transparency* (Sept 2022)
- Regulus Partners - *Reducing online gambling black markets: an analysis of international practices used to combat online gambling black markets* (Sept 2024)
- UK Government (DCMS) - *Gambling Act Review* (May 2023; *High Stakes: Gambling Reform for the Digital Age White Paper* (Apr 2023)
- **UK Gambling Commission (UKGC)** - consumer voice research engagement surveys
- YouGov / Betting & Gaming Council - survey results (May 2025)

Sweden:

- Copenhagen Economics - *The degree of channelization on the Swedish online gambling market* (Apr 2020)
- **Spelinspektionen** - *Public control of the gambling market – Final report* (Sept 2024); *Channelling rate in the Swedish gambling market in 2024* (Sept 2025); *The SGA's situation report – online gambling outside the licensed market* (April 2025)
- Statskontoret (Swedish Agency for Public Management) - background materials cited in the Sweden case study

Denmark:

- **Spillemyndigheden** - *Danes largely gamble on sites with a Danish licence* (Jan 2024); *Report on Illegal Gambling* (Mar 2024); *Report on Illegal Gambling 2024* (March 2025)

France:

- **Autorité nationale des jeux (ANJ)** - *Annual Report 2024, Annual analysis of the gambling market in France 2023*
- **L'Association Française des Jeux en Ligne (AFJEL)** - *Annual Report 2023*
- PwC Strategy& (for ANJ) - *Study on the illegal offer of online gambling accessible in France* (Dec 2023)

Germany:

- **Gemeinsamen Glücksspielbehörde der Länder (GGL)** – *Activity Report 2024*
- University of Leipzig (for DOCV & DSWV) - *An Analysis of the Latest Developments in the Online Gambling Market in the Wake of the Interstate Treaty on Gambling 2021* (Nov 2023)
- Journal of Gambling Studies - *Attitude Towards Deposit Limits and Relationship with Their Account-Based Data Among a Sample of German Online Slots Players* (Apr 2025)

Netherlands:

- **Kansspelautoriteit (KSA)** - *Markers of Risk: How gambling data can be used to assist effective supervision* (2025); *Effects on the online gambling market: New rules for player protections 2024* (August 2025); *Effects on the gambling market: Increase in gambling tax* (August 2025)
- Statistics Netherlands (CBS)
- Atlas Research – *Raise or fold? Increase in gambling tax and the impact on public interests* (September 2024)
- Ipsos – *Online Gambling Barometer 2024* (May 2024)

Spain:

- **Dirección General de Ordenación del Juego (DGOJ)**
- Harm Reduction Journal - *Impact of Spanish gambling regulations on online gambling behaviour and marketing strategies* (2025)

Greece:

- **Hellenic Gambling Commission** - *Annual Report 2024*

Italy

- **La Gazzetta dello Sport:** “A mind-blowing business: illegal gambling in Italy generates 25 billion euros.” (October 2023)

A woman with glasses is smiling and looking at a smartphone. She is wearing a patterned jacket. The background is softly blurred, showing an indoor setting with warm lighting.

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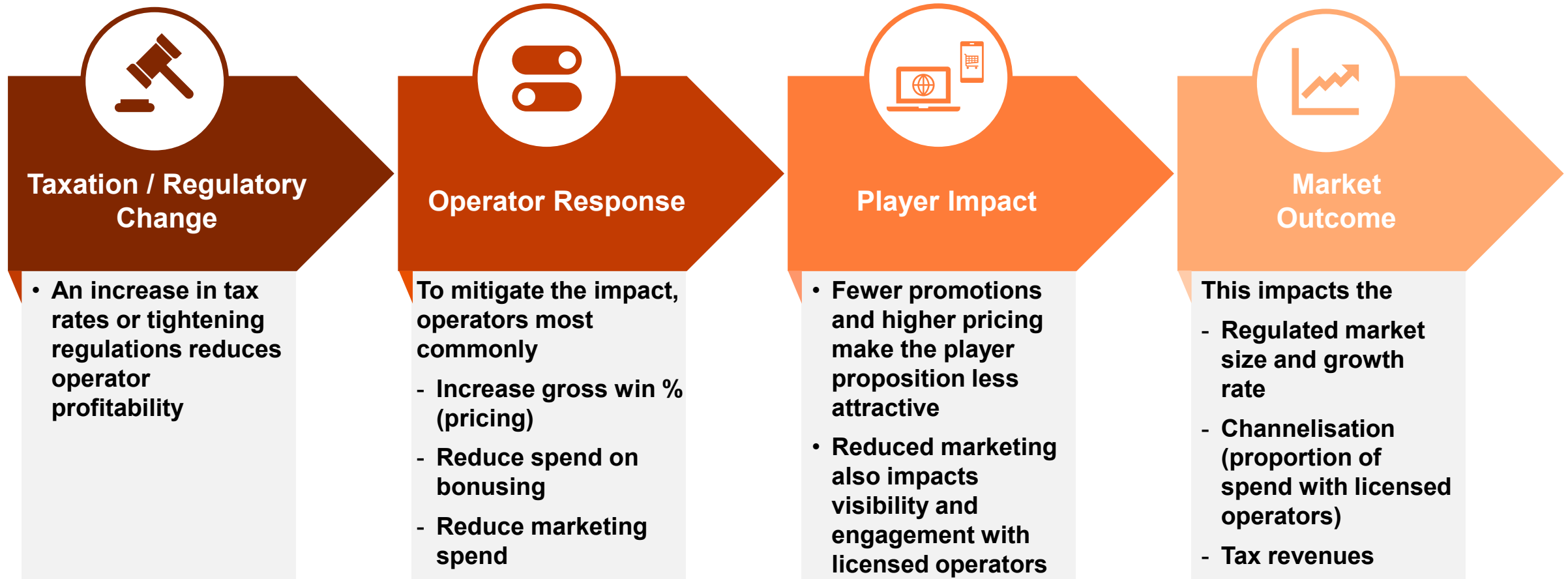
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Executive summary

This report looks to evidence how markets responded to historical tax and regulatory changes by considering operator responses and player impact

Hypothesis of the impact of a tax increase or regulatory tightening tested in this report¹



Notes: 1) Across European jurisdictions there are considerably more occurrences of tax increases and regulatory tightening in the last 5 years compared to tax rate reductions and regulatory liberalisation. Therefore, this report has focused on evidencing the outcome of tax increases and regulatory tightening, however it is expected that the inverse of the hypothesis above would be valid in a liberalising regulatory environment.



Taxation / Regulatory Change

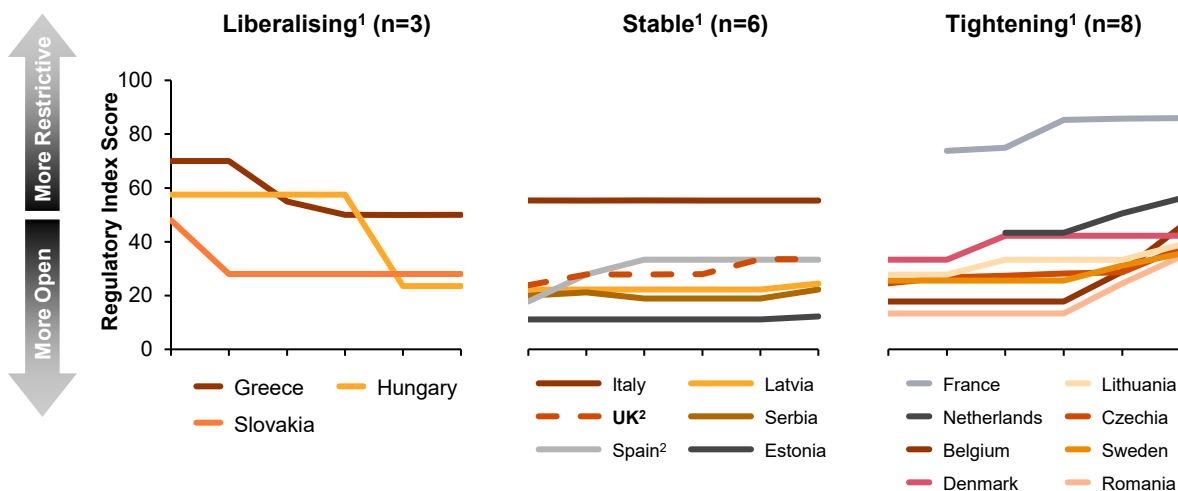
There are a range of regulatory environments across Europe. The UK is in line with the average rate of taxation for most verticals today

UK is in line with European benchmarks in terms of its overall regulatory position...

- We have conducted an assessment of 17 European jurisdictions with comparable tax/regulatory environments to UK (e.g. excl. monopolies and stakes-based tax regimes).
- To fairly assess performance across markets, we have developed a Regulatory Index, which considers average gambling tax rates as well as player, product (including spend limits, player verification and game play restrictions) and advertising restrictions.
- This includes markets that are currently liberalising (n=3), stable (n=6), and tightening (n=8).

Regulatory Index score over time

Score out of 100. 17 jurisdictions. Calendar year 2019-2024

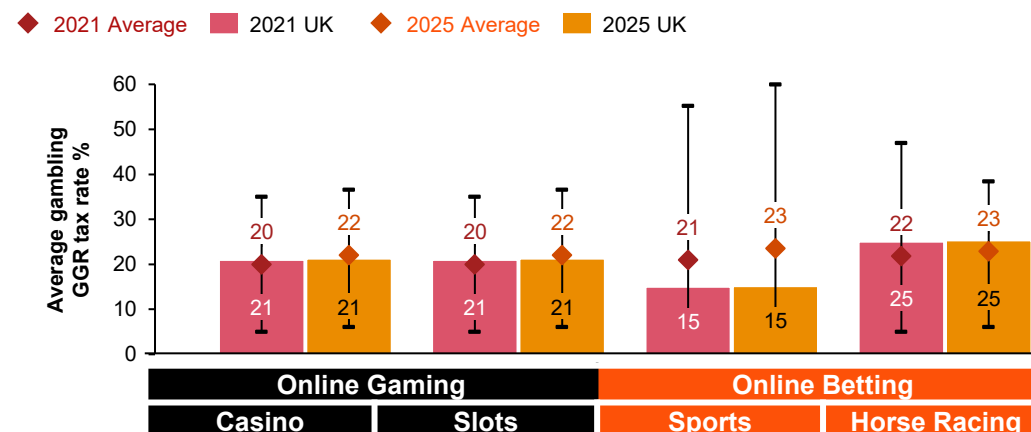


... including average gambling taxation rates across most product verticals

- The UK online market has experienced regulatory tightening and tax increases over the past c.10 years, most notably the increase in Remote Gaming Duty from 15% to 21% of GGR in 2019, enhanced social responsibility around “High Value Customers” in 2020, online slot game product restrictions in 2021, and updated vulnerability check thresholds and slot stake limits in 2025.
- Today, gaming tax rates in UK are broadly in line with the average of European peers across most product verticals.

European online gaming and betting weighted average³ gambling GGR tax rates

Weighted average gambling tax % of GGR, Calendar year 2025, n=17



Notes: 1) Markets that fell by 5 or more points between 2019 and 2024 are included in Liberalising. Markets that changed by less than 5 points are Stable. Markets that increased by more than 5 points are Tightening. 2) UK's index score changed by 9 points and Spain's index score changed by 14 points but are included in Stable given some of the changes occurred before 2020 3) Average gambling tax rate includes the headline tax rate plus any additional levies placed on operators, breakdown of methodology included in the report | Source: H2GC, VIXIO, Local Regulators, Desktop research, PwC Analysis



Operator Response

Operators tend to adjust gross win % (pricing), bonusing, and marketing spend to manage financial performance under different regulatory and tax environments

Operators respond to the regulatory/tax environment by...

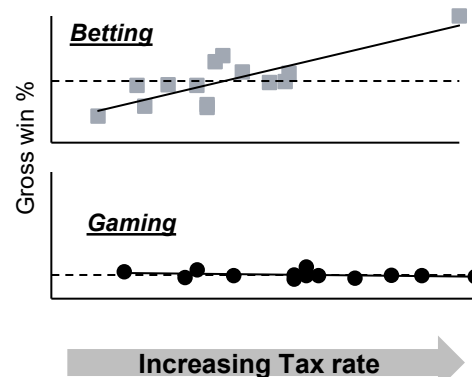
- Operators tend to make investment decisions based on market size/ growth, competitive dynamics, regulatory and tax environment, and wider strategic priorities.
- Pricing (Gross win %), bonusing, and marketing are three of the largest variable costs within an operator's P&L.
- Operators therefore typically adjust pricing and spending (bonuses, marketing) to manage returns and mitigate negative impacts from regulation or tax changes.

1

...adjusting betting Gross win % (pricing)...

- Operator gross win % (pricing) for betting is observed to be higher (result is lower RTP) in jurisdictions with higher tax rates ($R^2 = 0.65$).
- Operators generally have limited control over gaming gross win margins, which are largely determined by game mechanics, particularly for table games ($R^2 = 0.09$)

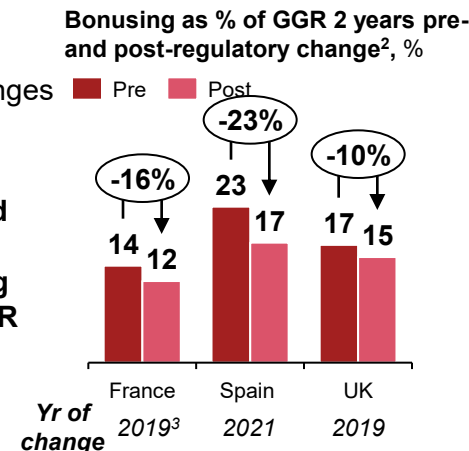
Impact of tax rate on betting and gaming GW% by jurisdiction, calendar year 2024



2

...reducing bonusing...

- Operators also adjust bonusing following regulatory and tax changes
- 11/17 BGC member brands across six jurisdictions¹ reduced betting bonusing and 13/19 reduced gaming bonusing as % of GGR the year following a regulatory tightening or tax increase**

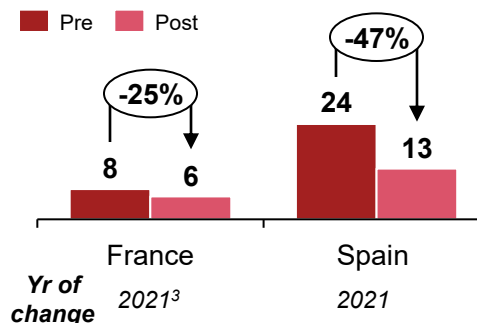


3

...and reducing marketing spend

- Operators also change marketing spend (in some instances as a direct result of regulatory change)
- 15/21 BGC member brands across six jurisdictions¹ reduced marketing as % of NGR the year following a regulatory tightening or tax increase**

Marketing as % of NGR 2 years pre- and post-regulatory change², %



4

Operators also review their overall operations

- In some instances, operators exited a market following tightening in the regulatory environment, for example:
- Number of operators fell more rapidly in France (tight regulatory environment) than Denmark (more liberal environment) post market opening.
 - Number of operator licenses fell in Italy and Romania following regulatory tightening and the number of operators in the UK has fallen from 626 in 2019 to 570 in 2024 as the regulatory environment has tightened.

Lever Ability to adjust

Gross win % (pricing)	●	Betting – some ability to adjust through odds offered
Bonuses	●	Gaming – more limited ability due to game mechanics but some ability to adjust product mix
Marketing	●	High ability to adjust number, structure and value of bonuses
Other Costs	●	High ability to adjust sponsorship over time and advertising
	●	More limited ability to adjust e.g. staff, third party costs

○ Low → ● High

Notes: 1) Analysis based on a sample of BGC member data covering 21 brands across six jurisdictions (Denmark, Germany, Netherlands, Spain, Sweden, and the UK). Bonusing spend data was available for 17 member brands in betting and 19 in gaming; 2) Jurisdictions presented are based on public data availability across total betting and gaming market, including poker and bingo. Trends are consistent with BGC member data in other jurisdictions. 3) France introduced measures to limit poker bonusing in 2019 and issued marketing guidelines in 2021 following Euro 2020 | Source: H2GC, VIXIO, Local regulators, Desktop research, BGC Members, PwC Analysis



Player Impact

Price, bonusing and marketing are key criteria for players when selecting an operator, particularly higher spend players, who account for the majority of spend

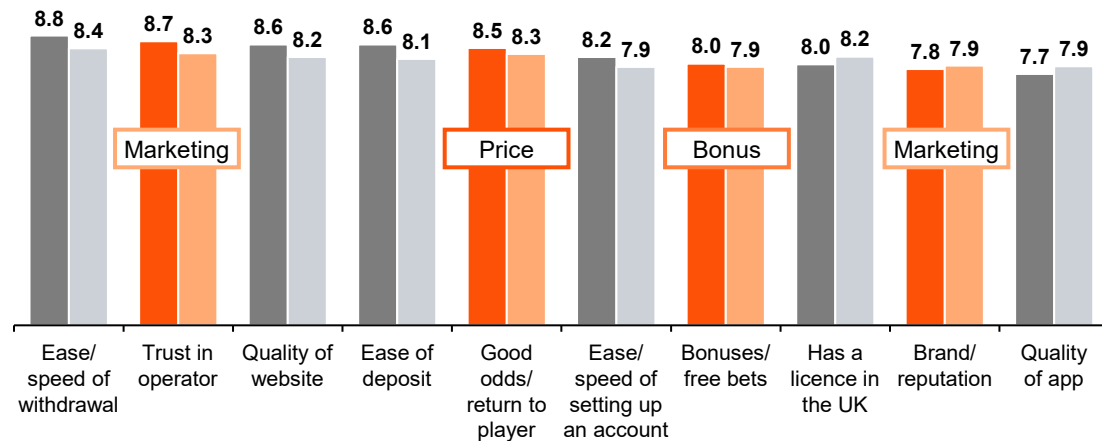
Pricing, bonusing, and marketing are key factors for players when selecting operators, in particular high spend players...

- Players consider price (“odds”, “return to player”), bonusing and marketing (“trust”, “brand”, “reputation”) as key decision-making criteria when selecting an operator.
- UK and international surveys state these are also key factors for players when considering switching to unlicensed operators.
- Players state that other regulatory restrictions (e.g. ID checks, deposit limits) can also contribute towards their decision to use unlicensed operators.

Top 10 key purchase criteria for high spend players selecting an online operator versus low-to-medium spend players, UK 2020, Average rating out of 10, n=2,363

High spend players

Low-to-medium spend players

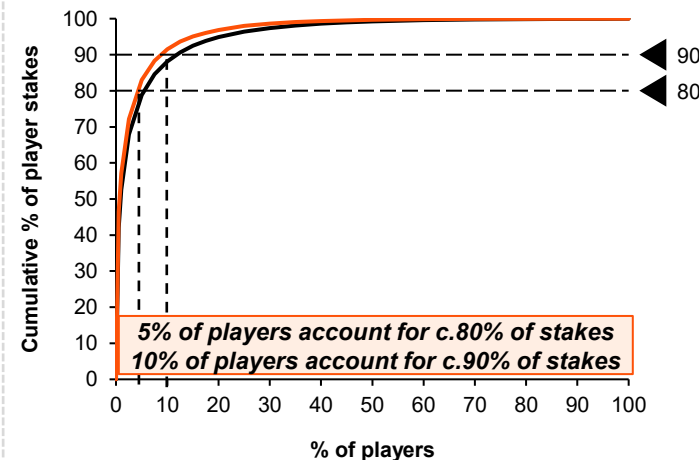


...who represent a disproportionate share of total market spend

- Price, bonusing, and marketing are even more important for higher spend players.
- High spend concentration in online gaming and betting means high spend player behaviour has a disproportionate impact on market performance (5% of players account for c.80% of total stakes).
- As a result, there is typically a difference between volume and value leakage to the offshore market, with high spend players representing a disproportionate share of the unlicensed market spend.

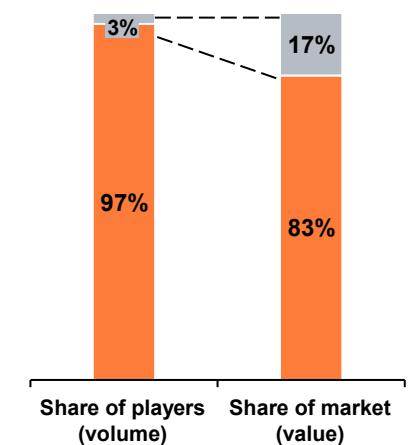
Cumulative % of stakes accounted for by players, UK 2022

— All betting — All gaming



Online betting, casino and poker: # of players and amounts wagered, Sweden, 2023, n = 1,511

— Licensed operator — Unlicensed operator



Notes: 1) Surveys selected based on data comparability | Source: UKGC, Local regulators, Desktop Research, PwC Analysis



Regulatory and tax choices impact the regulated market size and growth rate, level of channelisation, and tax revenues – both in absolute terms and over time following regulatory/ tax changes

GGR Market Size & Growth

- Countries with more restrictive regulatory environments tend to see less spend with onshore licensed operators in terms of GGR per capita ($R^2 = 0.77$ in Western Europe, 0.54 in Central & Eastern Europe (CEE)).
- In Western Europe, regulatory tightening also corresponded with slower market growth. Western European jurisdictions with a tax increase had an average CAGR of 6% vs an average of 17% in jurisdictions which maintained / reduced tax 2019-24. However, in CEE, there was limited correlation between tax increase and GGR growth rate 2019-24

Channelisation¹

- Countries with more restrictive regulatory environments also generally have lower channelisation (% of spend with onshore licensed operators) - ($R^2 = 0.63$ in Western Europe, 0.42 in CEE).
- On average countries with tightening regulation experienced a 2 ppt decline in channelisation vs. markets that were stable (+7 ppts) or liberalising (+15 ppts), with some variation across jurisdictions.

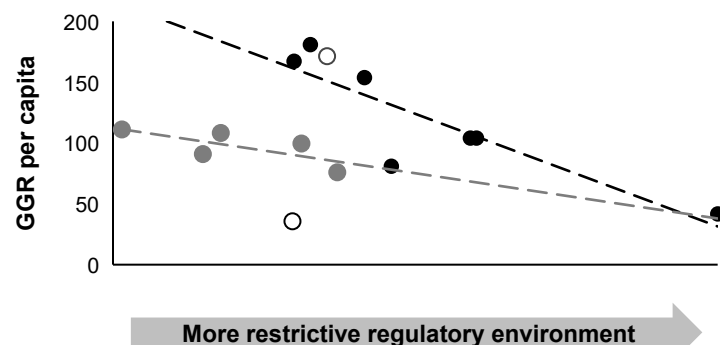
Tax revenue

- Tax revenue per capita² is relatively flat across Western European jurisdictions with a wide range of average gambling tax rates.
- Jurisdictions with <25% online GGR tax rate experienced higher growth in tax take (13% p.a.) compared to jurisdictions with >25% tax (9% p.a.) between 2019-24.
- Western European jurisdictions that increased tax above 20% GGR experienced a range of market responses; UK and Denmark had continued tax take growth but Germany and Netherlands had a decline in tax take and GGR.

Impact of regulatory environment on market size

Calendar year 2024, £ vs regulatory index score

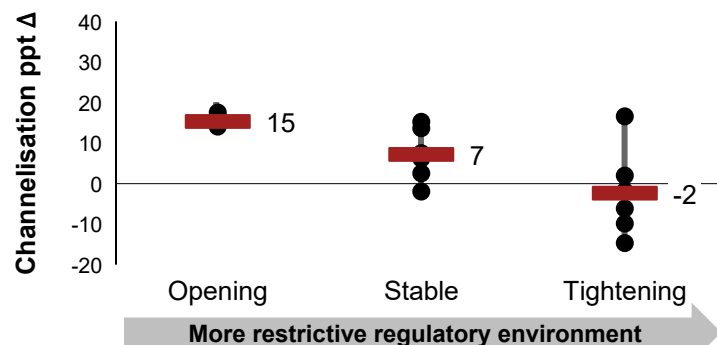
● Western Europe ● CEE ○ Excl. from R^2



Percentage point (ppt) change in online turnover (stakes) channelisation

Calendar year 2019-2024

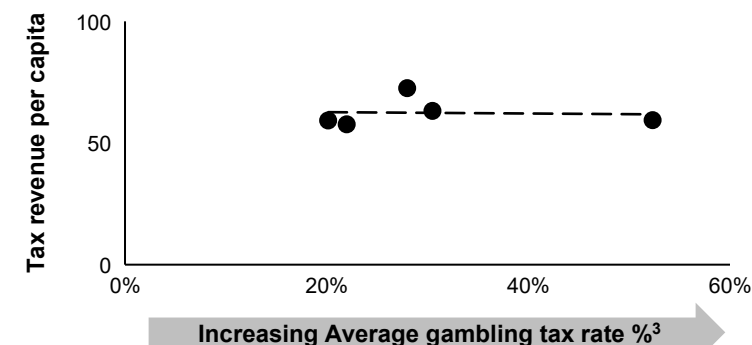
● Jurisdiction x — Average



Impact of tax rate on tax revenue per capita²

Calendar year 2024, £ vs tax rate %

● Western Europe



Notes: 1) Channelisation is the percentage of market spend with operators licensed onshore, out of the total spend across onshore licensed and offshore grey market unlicensed operators, 2) Gaming and betting. Land-based and online, 3) Average gambling tax rate calculation methodology detailed on p15 |Source: H2GC, VIXIO, Local regulators, HMRC, WorldData, Desktop Research, PwC Analysis

2

European Regulatory Landscape

This report primarily assesses evidence from 17 European jurisdictions, selected based on their comparability to the UK online betting and gaming market



European countries

43¹

We have focused analysis on European jurisdictions to ensure comparability vs. the UK



Sufficiently large markets

43 → 27

We have excluded jurisdictions with <£100m Gross Gaming Revenue (GGR) (e.g., Cyprus, Belarus)



Monopoly markets

27 → 22

We have removed jurisdictions with a state monopoly in the period (2019-25) given lack of comparability to UK regulatory regime²

Comparable characteristics

22 → 17

We have focused on jurisdictions which have applied tax on a GGR basis for at least 3 years to focus on comparable regulatory regimes to the UK

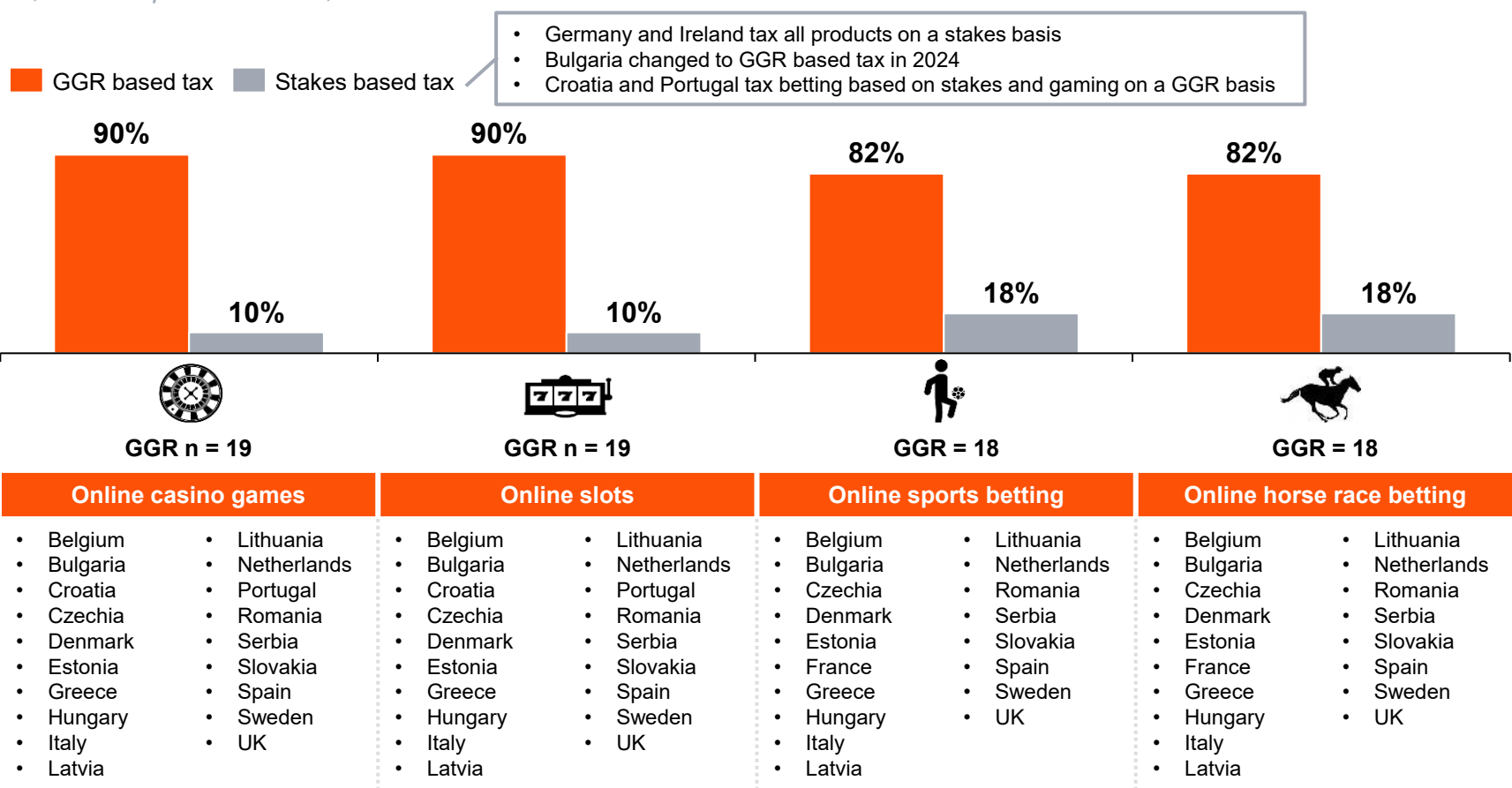
The report also includes some case studies from jurisdictions with stakes-based taxes (e.g. Germany)

Notes: 1) Excludes Central Asian territories (e.g., Georgia) and the Russian Federation; 2) Excludes Switzerland and Slovenia which have monopolies for sports betting, Norway who has a monopoly on all products, and Austria and Poland who have monopolies on gaming. France has a retail monopoly for horseracing but has been included as “comparable” because online betting is licenced | Source: United Nations, World Bank, H2GC, Desktop Research, Strategy& Analysis

Most European jurisdictions tax gambling based on GGR, with some having switched away from stakes-based taxation in recent years

Proportion of selected European jurisdictions with GGR and stakes tax regimes

% , as of September 2025, n=22



Stakes tax bases are less common, particularly for games where the intrinsic margin cannot be altered without changing the game (such as with several casino games). Stake based taxes can make certain lower-margin products unviable and influence pricing, bonusing and marketing behaviour of operators

Therefore, this report primarily focuses on 17¹ jurisdictions which have applied tax on a GGR basis across products for at least 3 years for greater comparability

Notes: 1) Bulgaria not included as changed from stakes to GGR based tax within the last 3 years | Source: VIXIO, H2GC, PwC Analysis

A jurisdiction’s “Average Gambling Tax Rate” is weighted based on product level GGR and considers the headline tax rate and product levies only

Average Gambling Tax Components


There are several components alongside headline tax rate which contribute to the average gambling tax rate levied on GGR

Considered in this report

Not Considered in this report



We have adjusted the Headline rate to consider Levies and weighted the tax rate based on the relative product-level GGR

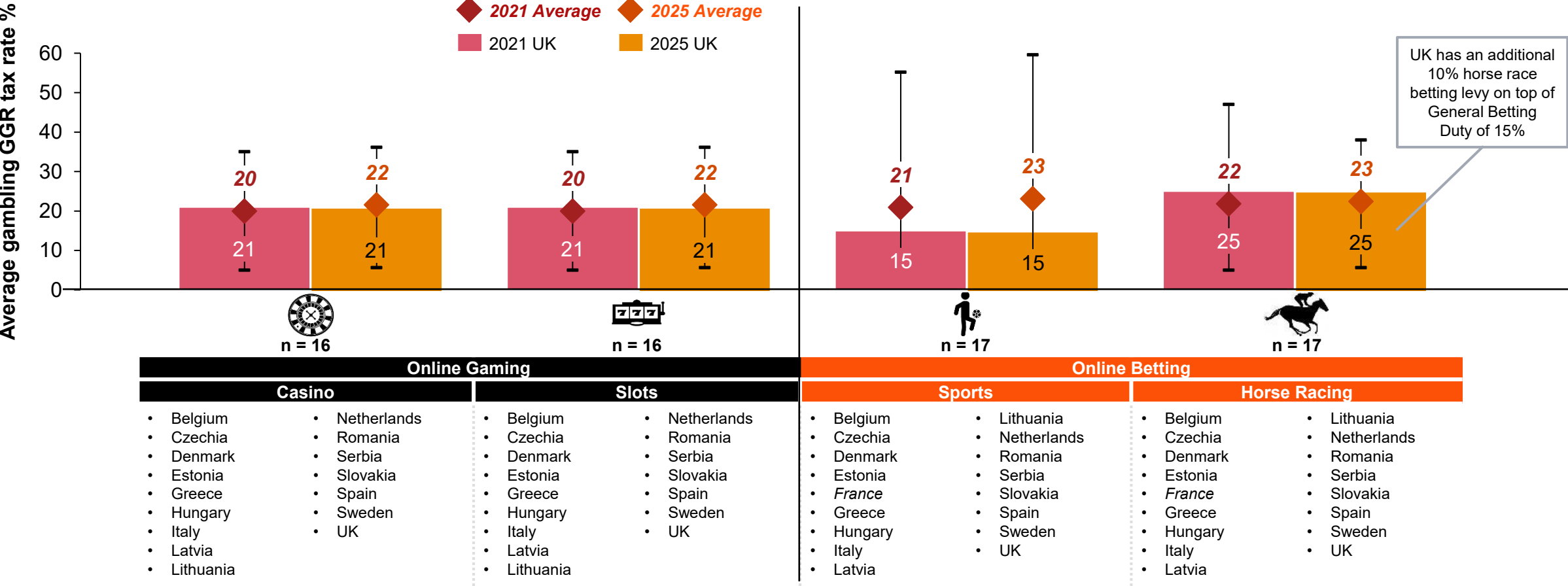
 United Kingdom	ILLUSTRATIVE			
	Betting		Gaming	
	Race	Sports	Tables and casino RNG	Slots
Headline tax rate (%)	15%	15%	21%	21%
Additional levies (%)	10%	-	-	-
Average gambling tax rate (%)	25%	15%	21%	21%
GGR, calendar year 2023 ¹ (£)	£884m	£1,507m	£832m	£3,350m
Weighted “Average Gambling Tax Rate”	18.7%		21%	
	20.2%			

Notes: 1) H2GC data used for product category comparability with other jurisdictions, comparison to UK Gambling Commission shown in Appendix | Source: H2GC VIXIO, PwC Analysis

Over the past 5 years, the average tax rate across the jurisdiction set has marginally increased across products. The UK today is broadly in line with the average

European online gaming and betting average gambling¹ GGR tax rates

Avg. gambling tax % of GGR, 2025, n=17

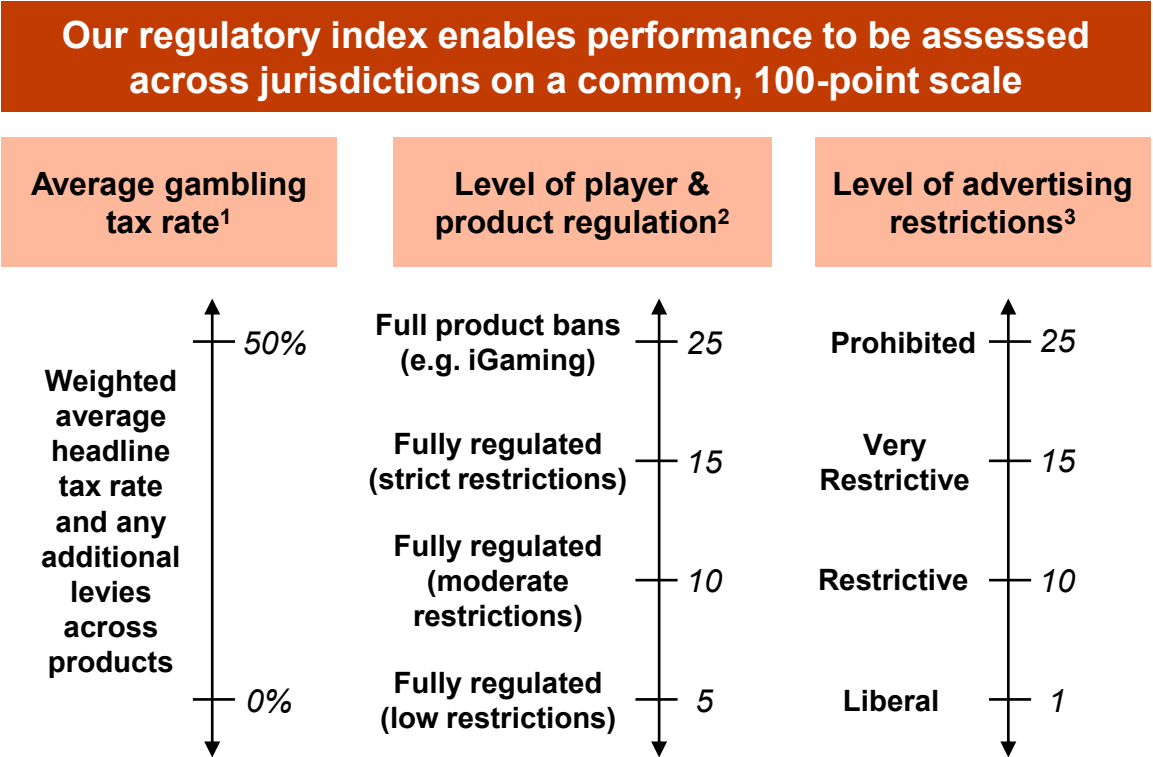
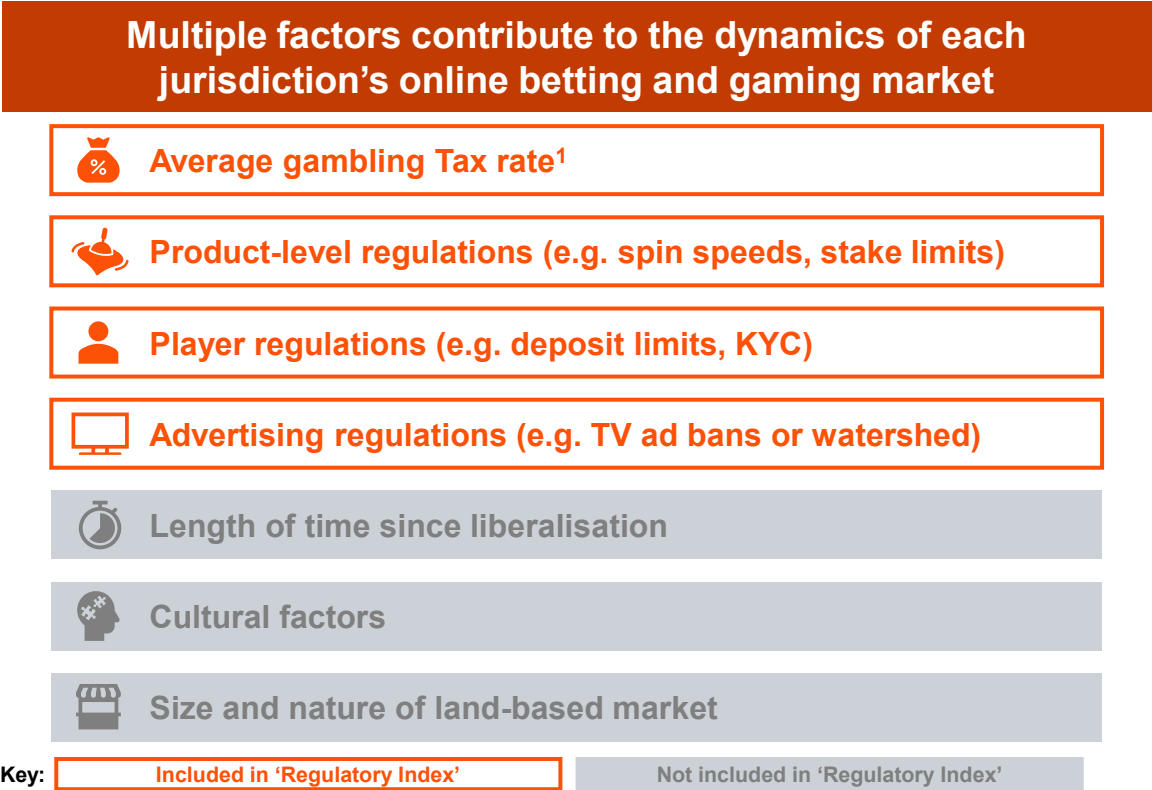


Notes: 1) Average gambling tax rate includes the headline tax rate plus any additional levies placed on operators | Source: PwC Analysis, Desktop Research, Local Regulators and Gambling Authorities, H2GC, VIXIO

We have developed a ‘Regulatory Index’ based on tax rates, player/ product and advertising restrictions to compare performance across jurisdictions and over time

Regulatory Index Methodology

ILLUSTRATIVE

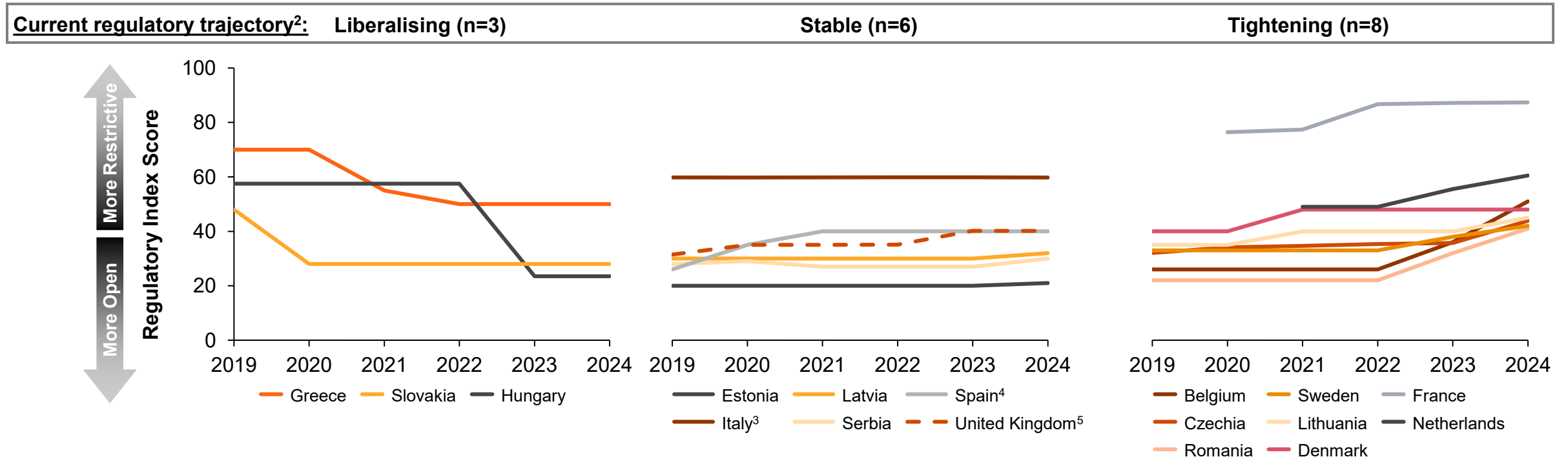


Notes: 1) Average gambling tax rate includes the headline tax rate plus any additional levies placed on operators, 2) Full product bans = certain verticals prohibited and operators blocked. Fully regulated (strict restrictions) = Licensing with heavy limits on product features, stake sizes, bonuses, KYC/affordability checks & deposit/loss limits. Fully regulated (moderate restrictions) = Licensing with some restrictions on product features, stake sizes, bonuses, KYC/affordability checks & deposit/loss limits. Fully regulated (low restrictions) = Licensing with wide product availability, standard KYC/affordability checks and minimal limits on stakes and deposits 3) Liberal = advertising is widely permitted with limited restrictions on content, channels, or promotional offers. Restrictive = Marketing is allowed but subject to conditions such as bonus or channel restrictions, significant compliance requirements. Prohibitive = Advertising and promotional activity is effectively banned.
| Source: H2GC, VIXIO, PwC Analysis

Our sample set includes 3 ‘Liberalising’ jurisdictions, 6 ‘Stable’ jurisdictions, and 8 ‘Tightening’ jurisdictions

Regulatory index score over time, by jurisdiction¹

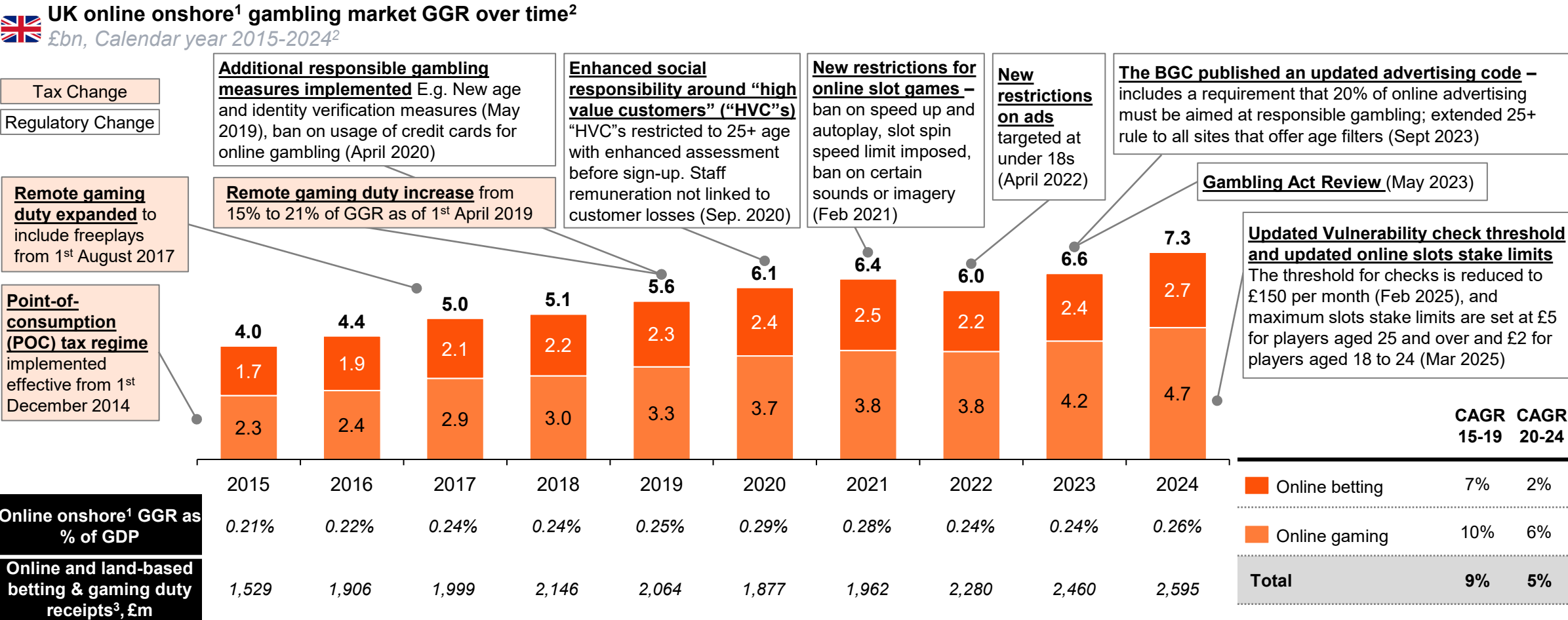
Score out of 100, Calendar year 2019-2024, n=17



- Throughout this report analysis primarily focuses on jurisdictions with relatively stable or tightening regulatory environments
- Jurisdictions which liberalised are considered on a case-by-case basis for comparability where relevant

Notes: 1) Includes jurisdictions with GGR based tax only; 2) Markets that fell by 5 or more points between 2019 and 2024 are included in Liberalising. Markets that fell by 5 or more points between 2019 and 2024 are included in Liberalising. Markets that changed by less than 5 points are Stable. Markets that increased by more than 5 points are Tightening. 3), Italy has a high regulatory index score due to a combination of a high tax rate of 27.5-28.5% across product categories and advertising prohibition implemented under the 2018 'Dignity Decree'. 4) Spain's index score changed by 14 points but is treated as Stable given recent loosening of advertising restrictions; 5) UK is classed as Stable given the timing of Regulatory Index changes (Remote Gaming Duty increased from 15% to 21% of GGR in April 2019) | Source: H2GC, VIXIO, PwC Analysis

The UK online gambling sector has undergone some regulatory tightening and tax increases but is broadly stable relative to comparable European markets



Notes: 1) Onshore refers to GGR attributed to operators with onshore licences in each jurisdiction, 2) H2GC data used for comparability of calendar years, comparison to UK Gambling Commission shown in Appendix 3) Online and Land-based, Excludes Lottery Duty |Sources: UK Gambling Commission (UKGC), HMRC, World Bank, H2GC, PwC Analysis

3

Operator Response

Following a change in taxation/regulatory environment, operators have a finite number of levers to manage profitability, potentially with second order effects

Bonusing, marketing and other costs and operating expenses are the largest costs in an operator's P&L which operators can control

			Illustrative
Example P&L for gambling operators			
Line Item	Units		Illustrative range
Stakes	n.a.		n.a.
GGR	%	of stakes	5-15%
Bonusing	%	of GGR	12-15%
Gambling taxes / levies	%	of GGR	10-30%
NGR¹			75-85% of GGR
Other cost of sales	%	of NGR	10-15%
Gross profit			60-80% of NGR
Marketing expenses	%	of NGR	10-25%
Operating expenses	%	of NGR	15-25%
EBITDA margin			15-30% of NGR

Operators can change Gross Win % (pricing) by adapting their product offering, odds offered, etc

Operators can directly influence bonusing by adjusting the levels, extent and type of bonusing offered to players

Operators have no ability to flex gambling taxes/levies costs

Operators have limited ability to change other cost of sales, such as bank charges, content costs, platform fees and game developer fees (Note: some of these are charged on a revenue share basis)

Operators can change marketing and advertising spend (e.g. sponsorship, paid marketing). Smaller operators typically have higher marketing % than larger operators






Operating expenses is primarily made up of staff and other costs (e.g. technology), which are hard to offset in the short term. This also includes smaller costs such as property costs

Notes: 1) NGR defined as GGR net bonusing | Source: Operator Annual Reports, Local Regulators, H2GC, PwC Analysis & Desktop Research

Following an increase in taxation/ tightening in regulatory environment, operators typically increase gross margin (price) for betting and reduce bonusing and marketing

Illustrative level of flexibility of operator responses to changes in online gambling taxation¹

○ Low → ● High

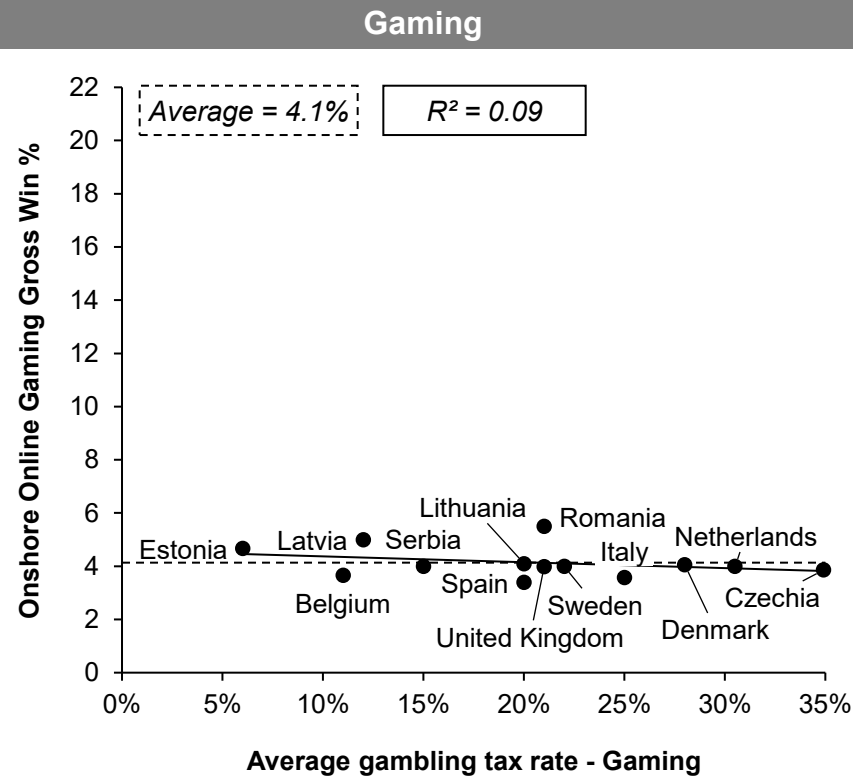
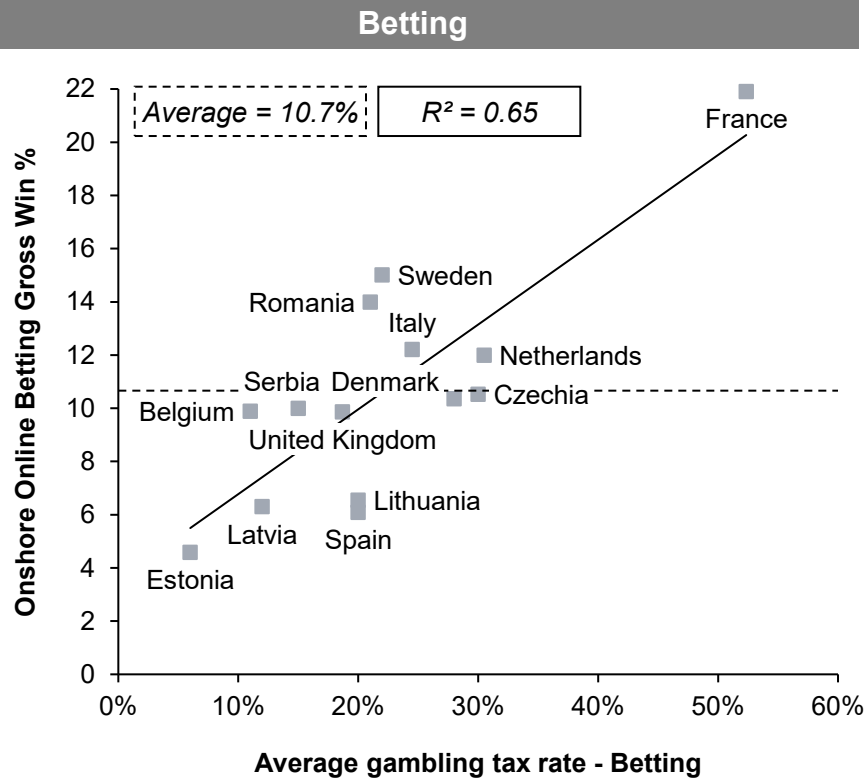
		Level of operator flexibility	Impact on player experience
Gross margin (Price) GGR as % of stakes	<i>Betting</i>	 <ul style="list-style-type: none"> • Betting: Operators can determine betting gross win margin by adjusting odds pricing 	<ul style="list-style-type: none"> • Higher gross win margins (i.e. prices) results in worse odds/ return to player (RTP). This results in smaller and/ or less frequent wins, creating a less enjoyable experience for players. This results in less recycling of winnings and shorter session length
	<i>Gaming</i>	 <ul style="list-style-type: none"> • Gaming: Operators have more limited ability to control gaming margins, which are largely determined by game mechanics, particularly for table games but operators can adjust overall gross margin by adjusting their product mix 	
Bonuses As % of GGR	<i>All products</i>	 <ul style="list-style-type: none"> • Operators have a high degree of control over bonusing and can reduce offers by adjusting the levels and extent of bonusing through offering fewer and smaller bonuses to targeted players, adding playthrough rules, shortening expiry, and/ or shifting from broad sign-up freebies to personalised loyalty offers 	<ul style="list-style-type: none"> • Clear, generous bonuses lower effective cost for players, extend playtime, and encourage players to try new games • Reduced offers or restrictive bonus terms can lead to player disengagement and increase rate of churn
Marketing As % of NGR	<i>All products</i>	 <ul style="list-style-type: none"> • Operators have a high degree of control over marketing spend and are able to reduce both above the line (including sponsorship) and below the line spend over time 	<ul style="list-style-type: none"> • Reduced advertising spend means that promotions and new products from licensed operators are less visible to players, affecting awareness, acquisition of players and reducing engagement
Other costs	<i>All products</i>	 <ul style="list-style-type: none"> • Operators have more limited ability to adjust other costs and operating expenses which typically include content costs, platform and game developer fees, staff costs and property costs 	<ul style="list-style-type: none"> • Impact to player is more limited but depends on the type of reduction

Note: The report has only considered a subset of the most significant operator responses for simplicity

Notes: : 1) Across European jurisdictions there are considerably more occurrences of tax increases and regulatory tightening in the last 5 years compared to tax rate reductions and regulatory liberalisation. Therefore, this report has focused on evidencing the outcome of tax increases and regulatory tightening, however it is expected that the inverse of the hypothesis above would be valid in a liberalising regulatory environment. | Sources: Desktop Research, PwC Analysis

Betting gross win % (pricing) is generally higher in higher tax markets. Due to game mechanics, there is little correlation with gross win % and the tax rate in gaming

Average gambling tax rate vs. online onshore¹ Gross Win %, by jurisdiction³ – Betting and Gaming
Calendar year 2024, n=14 betting, (13 gaming)⁴

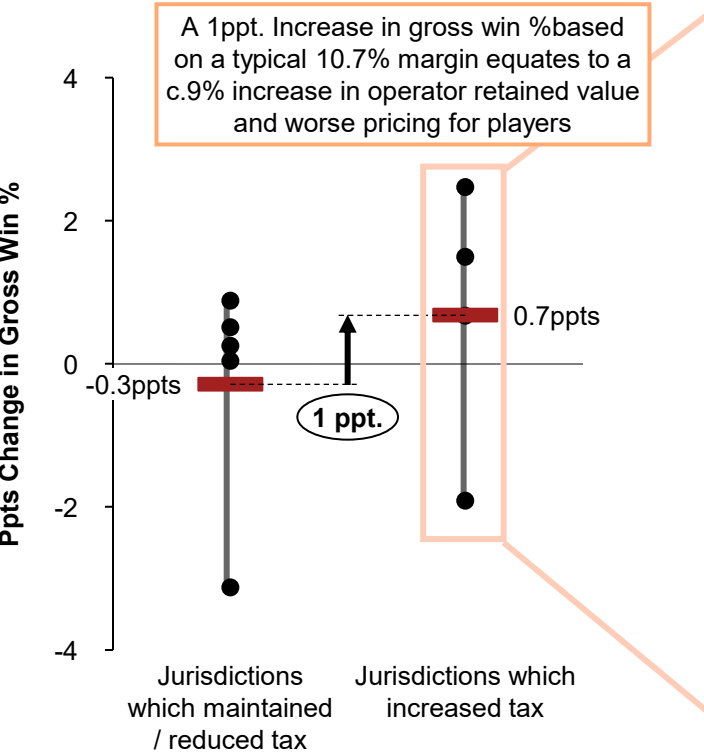


- There are structural differences between gaming and betting, resulting in c.6 ppt higher average gross win % for betting vs. gaming
- Tax rates show a stronger correlation with betting gross win % ($R^2 = 0.65$) compared to gaming ($R^2 = 0.09$)
- *Given jurisdiction-level market dynamics, variance across Gross win % is expected due to other market dynamics such as regulatory stakes limits and competitive intensity*

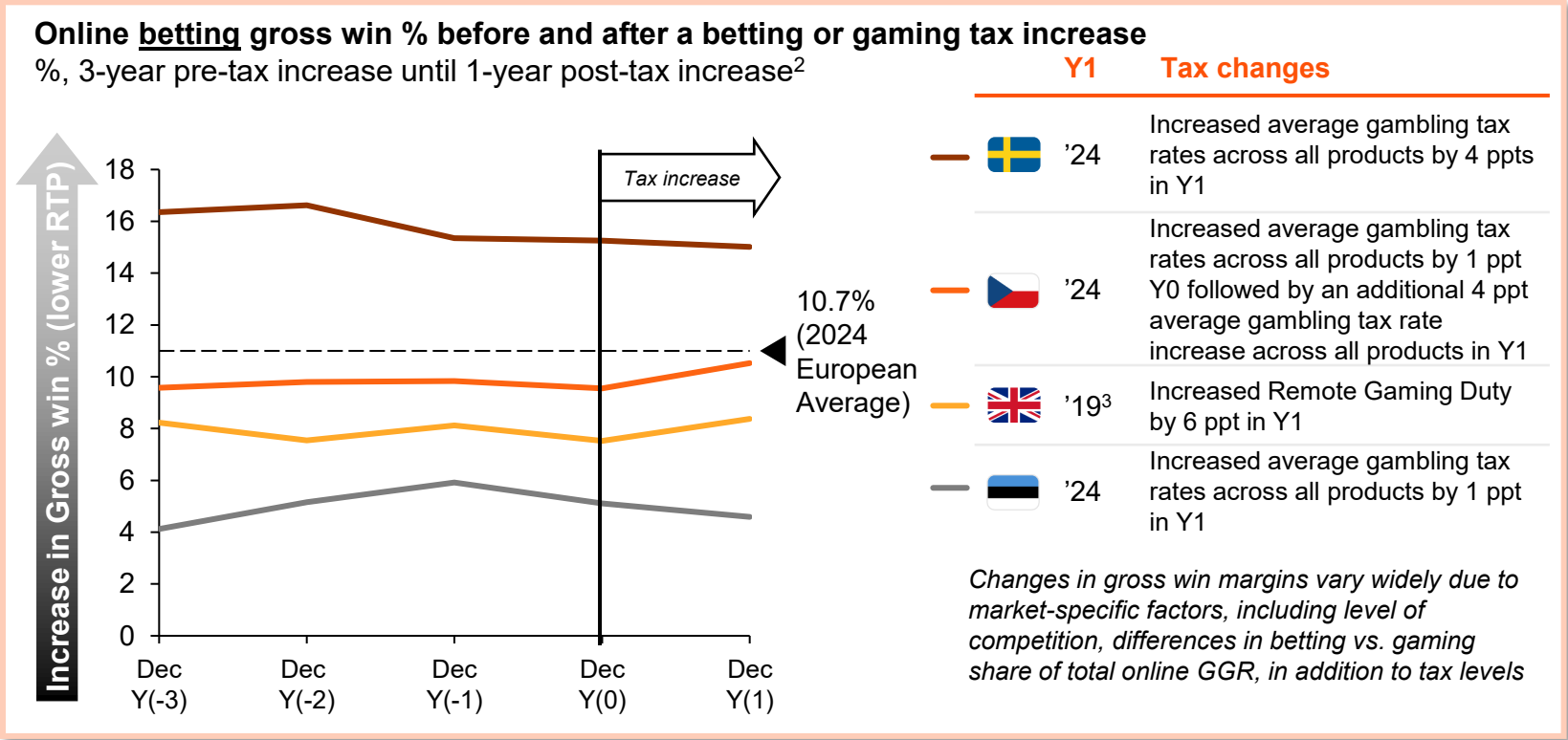
Note: 1) Onshore refers to GGR attributed to operators with onshore licences in each jurisdiction, 2) Excludes countries with stakes-based taxation regime, Hungary, Slovakia and Greece excluded, 4) France excluded in gaming as online casino is prohibited. | Source: H2GC, PwC Analysis

On average, jurisdictions which increased tax experienced a slight increase in gross win %, however there is some variation in market level response

Ppt Change in online betting Gross Win % by gaming or betting tax change
Year end 19'-24', n=8¹ ● Country x — Average



3 out of 4 jurisdictions that increased the tax rate across betting or gaming saw an increase in betting gross win % (lower RTP) in the 1 year following the tax rate change (vs. 3 years prior)



Note: 1) Excludes jurisdictions with stakes-based taxation regime, liberalising jurisdictions (Hungary, Slovakia and Greece), and Netherlands which regulated during the period. Romania, Latvia, Serbia, Belgium and Denmark excluded due to data availability; 2) Y(1) marks end of calendar year in which tax change occurred, e.g for a tax change in 2022 Y(0) represents Dec 2021 and Y(1) represents Dec 2022, details of tax changes for each jurisdiction included in the appendix 3) H2GC data used for comparability across jurisdictions, comparison to UK Gambling Commission shown in Appendix | Source: H2GC, PwC Analysis



In Germany, Gross win % has increased to 10.6% for online gaming (vs. 4.1% in Europe), following the introduction of a 5.3% stakes tax in 2021

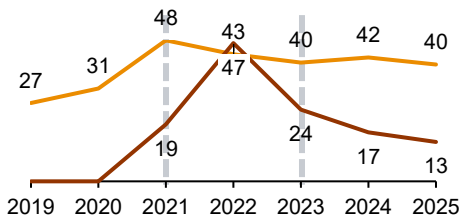
Case Study: Operator Response

Online Gambling Market Overview

— Betting — Total — Tax / Regulatory Change
— Gaming

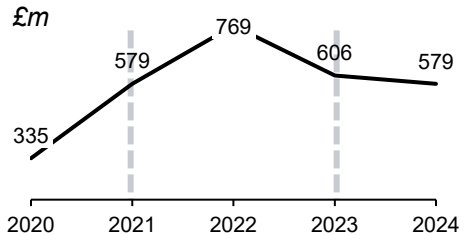
Channelisation

Calendar year, % of turnover, onshore



Tax take

(online and land-based, ex. lotteries)



1. DE regulated online gaming in July 2021 with a 5.3% stakes-based taxation and product restrictions

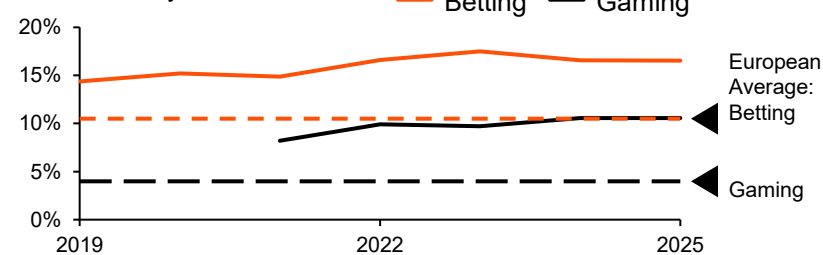
Germany regulated online gaming in July 2021, with a 5.3% turnover-based tax and a number of player/ product restrictions, including

- A maximum stake of €1 per spin on online slots, with no auto-play or jackpots, and limits on table game availability
- Player protection measures including a €1,000 monthly deposit cross-operator cap, mandatory ID checks, self-exclusion systems, and blocking of unlicensed sites

3. DE Gross Win % has risen to 11% as operators have reduced investment (vs. 4.1% EUR average)

DE online betting and gaming Gross Win %

%, Calendar year 2019-2024



2. As a result, online casinos believe they cannot profitably offer RTP above 94.7% (i.e. <5.3% gross win)

March 2025

iGamingCare



“Germany’s higher gambling tax burden has made it impossible for online casinos to offer return-to-player rates above 94.7% without incurring losses. **To be profitable, a platform should put a cap at about 92-93% or lower, which is below the industry average of 95%**”

4. Operators cannot offer certain games and have worked with slot developers to rearchitect slot games

Operator game viability/ response

Game	Roulette	Blackjack
Margin	Single / Double Green 2.7% / 5.3%	0.5%
Viable	X (✓)	X

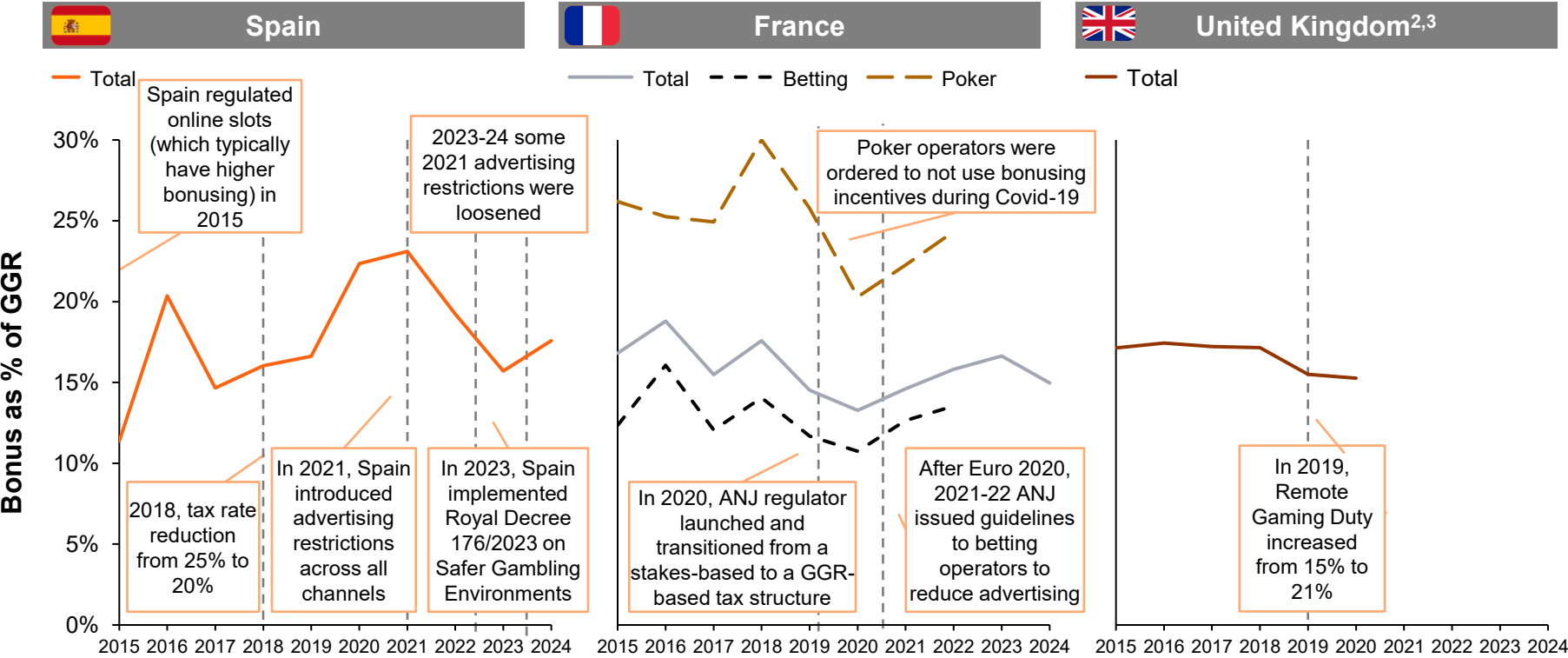
BGC members state that they worked with some suppliers to rearchitect games to increase gross win % but were not able to do this with all suppliers. Therefore product catalogue was significantly reduced

Public and BGC member data shows operators typically reduce bonusing following regulatory tightening, reducing the attractiveness of their products to players

Bonuses as a share of GGR over time for selected jurisdictions¹

%, Calendar year 2015-2024

Sample set presented is due to limited publicly available data



In addition, data from a sample of BGC member operators across six jurisdictions in Western Europe⁴ identified that reduced bonusing often coincided with regulatory tightening

- 11/17 BGC member brands (“brands”) across six jurisdictions reduced betting bonusing and 13/19 reduced gaming bonusing as % of GGR the year following a regulatory tightening or tax increase
- In the UK in 2019 following a 6 ppt increase in gaming tax, bonusing % of GGR fell for 4/5 gaming brands and 3/4 betting brands. In 2023, bonusing % fell across all 5 gaming brands and 3/4 betting brands following the Gambling Act Review
- In Spain, in the year following both the increase and subsequent roll back in advertising restrictions in 2021 and 2023-24, the majority of brands reduced betting and gaming bonusing spend as a % of GGR
- In Sweden, one BGC member reduced investment in the market 2019-24 overall citing “poor ROI following bonusing restrictions and customer loss limits” as a key driver

Bonus levels are also impacted by a range of other factors such as market competitiveness, maturity, specific events, inflation and operator market strategy

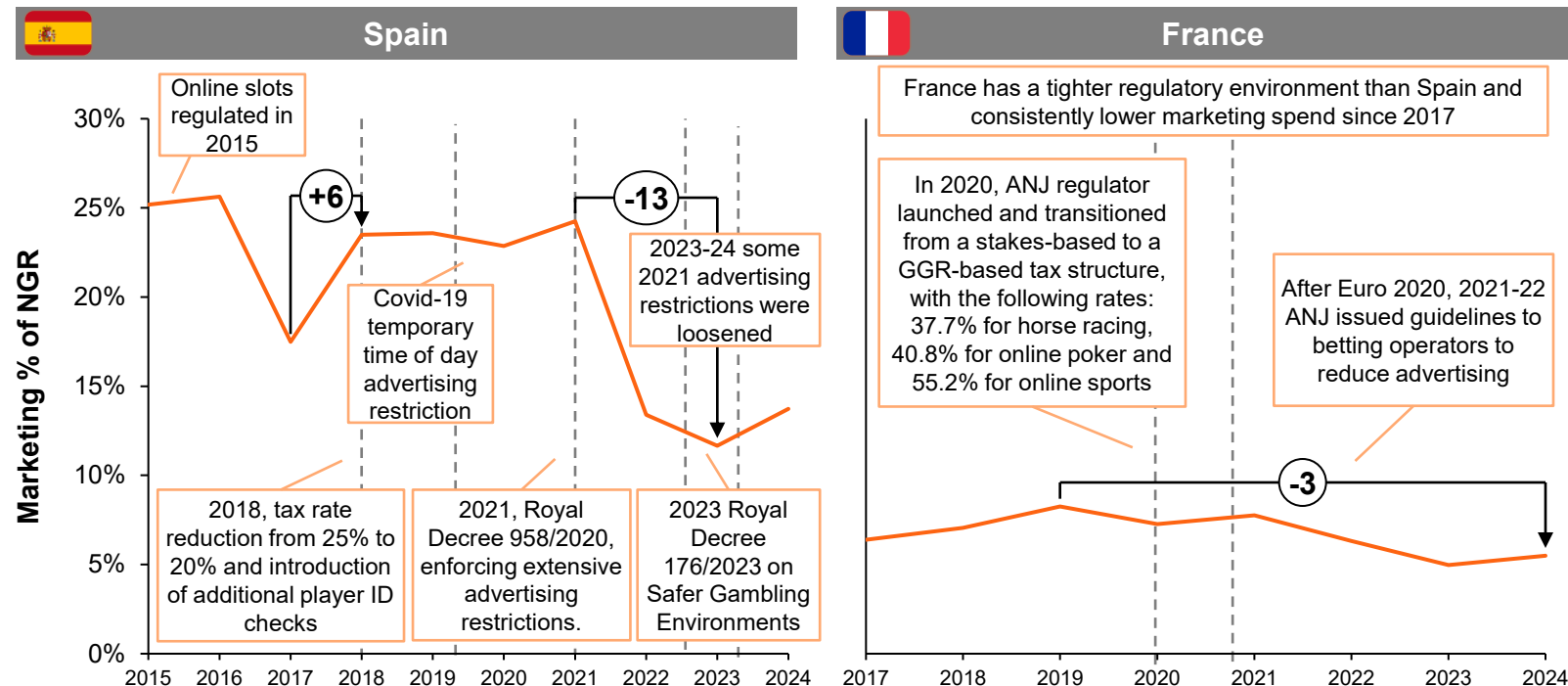
Notes: 1) Jurisdictions presented are based on public data availability across total betting and gaming, including poker and bingo. Trends are consistent with BGC member data in other jurisdictions, 2) Calculated as GGR – NGR; 3) Unavailable data for NGR post-2020; 4) Analysis based on a sample of BGC member data covering 21 brands across six jurisdictions (Denmark, Germany, Netherlands, Spain, Sweden, and the UK). Bonusing spend data was available for 17 member brands in betting and 19 in gaming | Sources: H2GC, VIXIO, Local Regulators, BGC industry members

Similar to bonusing, reduction in marketing spend as a % of GGR often coincides with imposed regulatory tightening, reducing licensed operator visibility in the market

Marketing as a share of online betting and gaming NGR over time for selected jurisdictions¹

%, Calendar year 2015-2024

Sample set presented is due to limited publicly available data



In addition, BGC member data from six Western European jurisdictions² shows that regulatory tightening generally correlated with reduced marketing spend

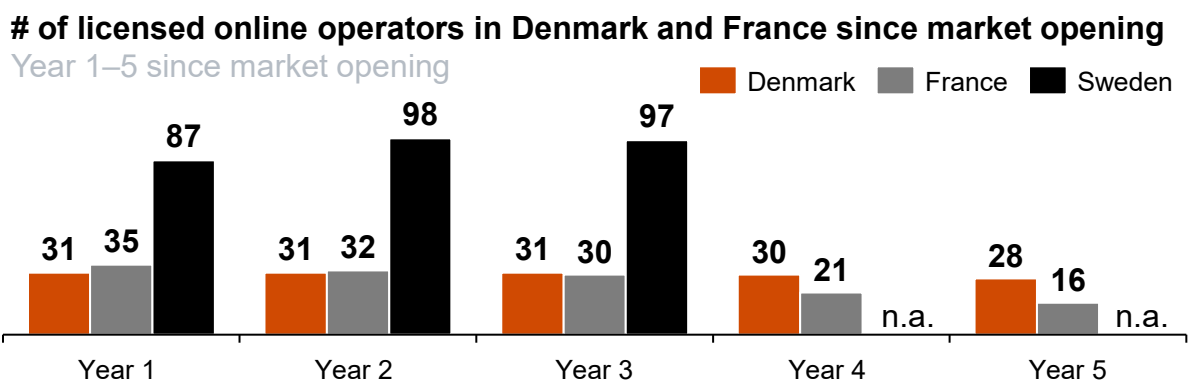
- 15/21 BGC member brands (“brands”) across six jurisdictions reduced marketing as % of NGR the year following a regulatory tightening or tax increase
- Across UK brands, there was a reduction in marketing spend for all 5 brands as % of NGR after a tax increase in 2019 and 4/5 brands following the Gambling Act review in 2023
- In Spain, marketing spend declined in all 5 brands following the introduction of advertising restrictions in 2021 and subsequently increased across 4/5 brands when restrictions were loosened in 2024
- In Denmark, following an 8ppts tax increase in 2021 one BGC member as part of wider market de-prioritisation reduced marketing investment overall 2019-24

Marketing spend is also impacted by a range of other factors, such as market competitiveness, maturity, key sporting events, inflation and operator market strategy (e.g. land-based presence)

Notes: 1) Jurisdictions presented are based on public data availability across total betting and gaming, including poker and bingo. Trends are consistent with BGC member data in other jurisdictions. 2) Analysis based on a sample of BGC member data covering 21 brands across six jurisdictions (Denmark, Germany, Netherlands, Spain, Sweden, and the UK). Bonusing spend data was available for 17 member brands in betting and 19 in gaming; | Sources: H2GC, VIXIO, Local Regulators, BGC industry members

Operators may also exit a market depending on the regulatory environment changes, leading to a reduction in player choice within the regulated market

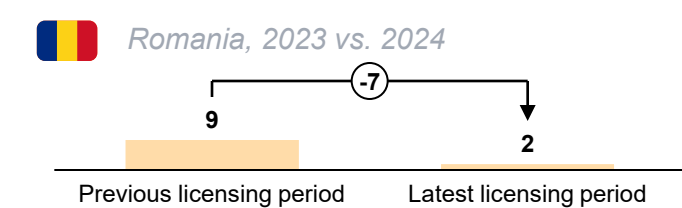
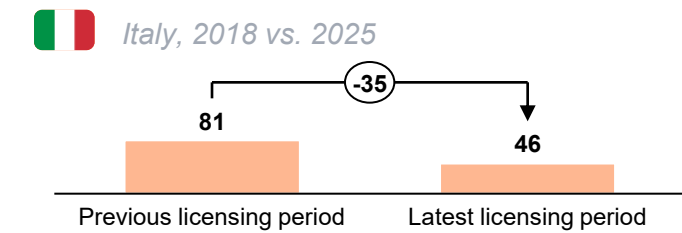
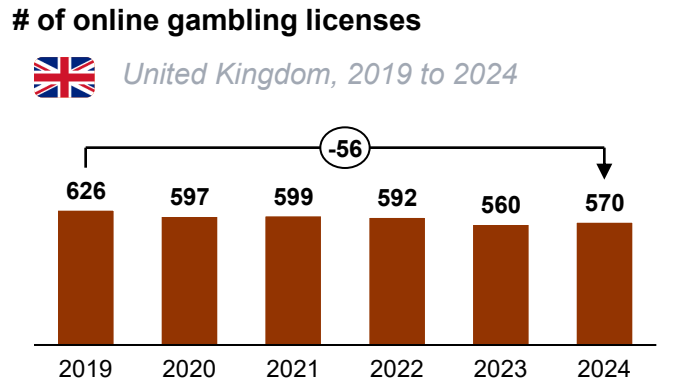
France opened the regulated market with tight regulations, high tax rates and had a higher reduction in licensed operators than Denmark which has less restrictive regulations



Headline ¹ tax rate - year of regulation		Year of regulation
	GGR Based: 20% on betting and gaming	2012
	Stakes Based: 5.7% on sports, 4.6% on horseracing and 1.8% on poker	2010
	GGR Based: 18% on betting and gaming	2019

In the first five years after market opening, the number of licensed operators in France declined by more than half. In Denmark and Sweden, operator numbers remained stable under a comparatively more favourable tax and regulatory regime

In the UK, the market has seen a reduction in license numbers since 2019. Changes in Italy and Romania led to fewer operator licenses in the most recent period



July 2025
iGaming News

“Fewer operators are now responsible for a larger share of total yield, as companies pursue economies of scale and continue reallocating investment towards digital products and platforms”

- In Italy, the regulator increased licensing fees in licensing from €200,000 for the previous period (2018) to €7 million (2025)

- At the start of 2024, Romania imposed a substantial increase in annual authorisation and license taxes across all product verticals


Notes: 1) Headline tax rate year of regulation excludes any additional levies. | Sources: H2GC, VIXIO, Local Regulators, Press Releases, Analyst Reports, PwC Analysis

...recent articles also cite tightening regulations and increases in tax as drivers of operator consolidation, with an increase in M&A observed since 2021

Tightening regulatory environments and increases in taxes are cited as drivers of M&A and operator consolidation...

...with relatively consistent M&A activity in the B2C ecosystem over the past c.10 years

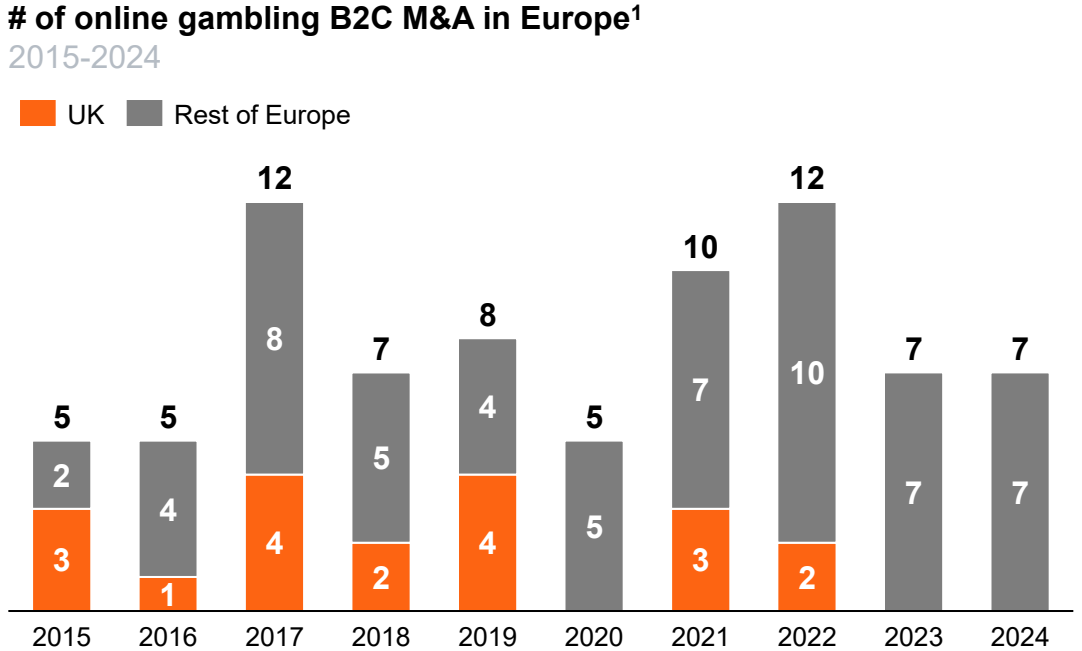
April 2025
Barclays Cirsa note



“Typically, **increases in taxes lead to consolidation** as the long tail of operators falls away and M&A ensues across the rest of the market to drive immediate scale and cost efficiencies.”

ProactiveInvestors | August 2025
Why are more iGaming companies merging?

“**Stricter online gambling regulations** in Europe, the United States and Latin America **also push smaller firms into the arms of larger ones**, since increasing compliance costs make it hard to survive alone. That is why deals have become cross-border; a British company may buy an Italian licence, or a South African operator may partner with a Latin American brand, just to keep up with the pace of change”



M&A activity is also driven by a range of other factors (e.g. economic environment) in addition to the regulatory environment in a jurisdiction

Notes: 1) Deals listed are limited to transactions for operators or suppliers engaged in the provision of real-money online gambling products and/or services and exclude transactions for companies solely engaged in land-based gambling, sporting content, fantasy sports, social casino games or affiliate marketing | Sources: VIXIO, Press Releases, Analyst Reports



4

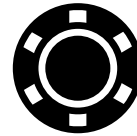
Player impact

We have assessed how regulatory and tax changes and resulting operator responses have influenced player attitudes and behaviour historically across three lenses



Player Experience

Evidencing the key factors that players consider when choosing an operator



Drivers of Unlicensed Operator Usage

Evidencing players' propensity to consider switching to unlicensed operators and drivers of switching

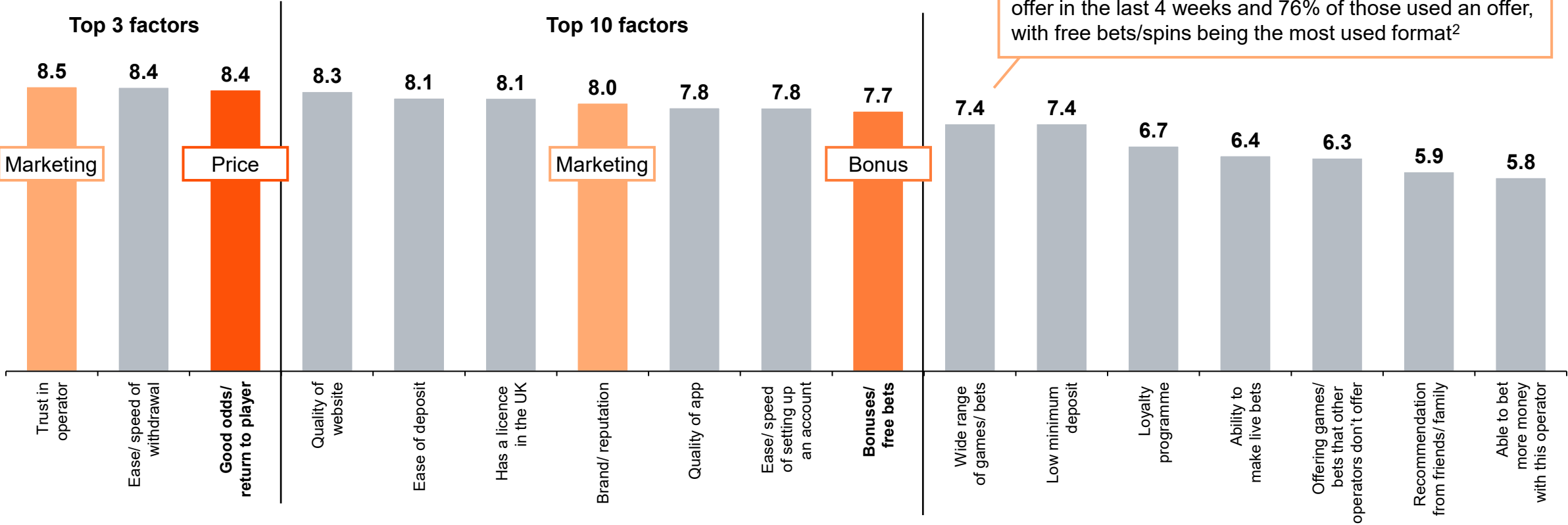


Importance of higher spend players

Understanding differences in decision making for higher spend players, spend concentration, and importance of high spend players on market outcomes

Price, bonusing, and marketing are all within the top 10 factors players consider when selecting an operator...

Key purchase criteria (KPC) for selecting an operator (UK online gambling respondents)
2020, Average rating out of 10, n=2,363¹



Notes: 1) Data from PwC Survey December 2020, 2) UK Gambling Commission research
Source: PwC Survey (December 2020), *Exploring consumer journeys using gambling promotional offers and incentives*, UK Gambling Commission (November 2023)

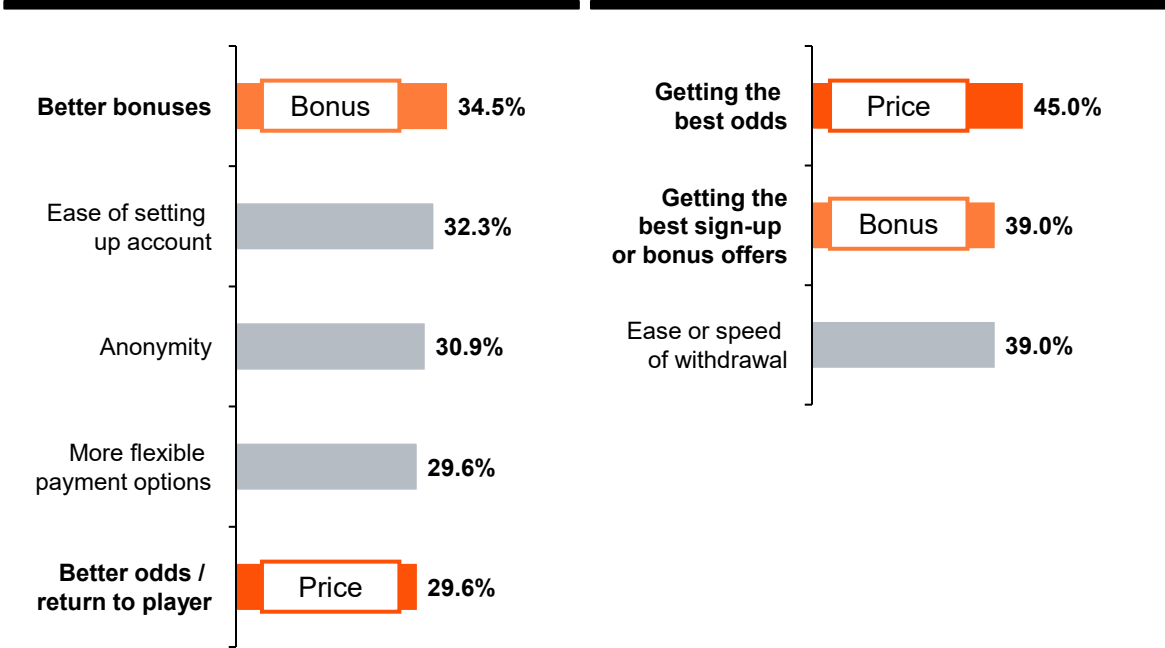
...and across multiple surveys in the UK and Europe, players state that pricing and bonusing are key drivers for switching to unlicensed operators

Multiple surveys in the UK find that price and bonusing are Top 5 reasons why players would switch to unlicensed operators...

Reasons to switch to unlicensed operators (top 5)

UK: Frontier Economics (Sept 2024)¹

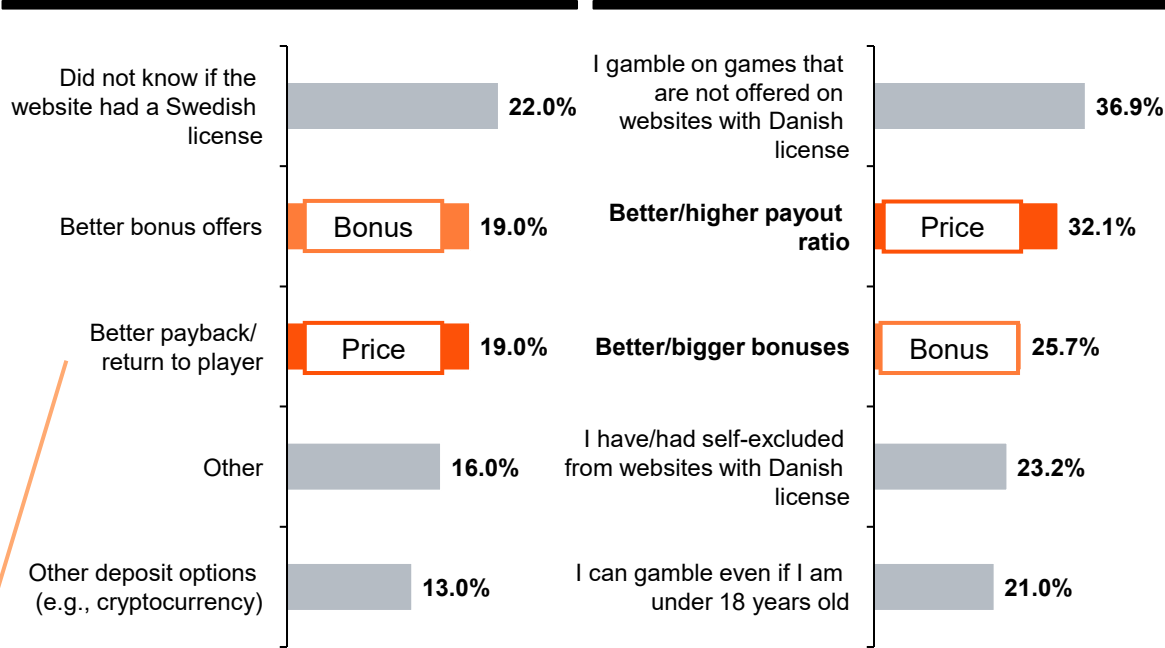
UK: UK Gambling Commission (Sept 2025)²



...this is supported by player surveys conducted by regulators across other European jurisdictions

Sweden: Spelinspektionen (Sept 2024)³

Denmark: Spillemyndigheden (Jan 2024)⁴



“Unlicensed casino providers can hand out bonuses without restrictions and therefore outperform licensed ones in terms of attractiveness of bonus schemes.” (Copenhagen Economics)

Sources: 1) The size and economic costs of black market gambling in Great Britain, Fronter Economics (September 2024), n=223, 2) Illegal online gambling - Phase 1: Exploring consumer pathways into using illegal gambling websites, UKGC (September 2025), 3) Public control of the gambling market - Final report, Spelinspektionen (September 2024), 4) Danes largely gamble on sites with a Danish licence, Spillemyndigheden (January 2024)

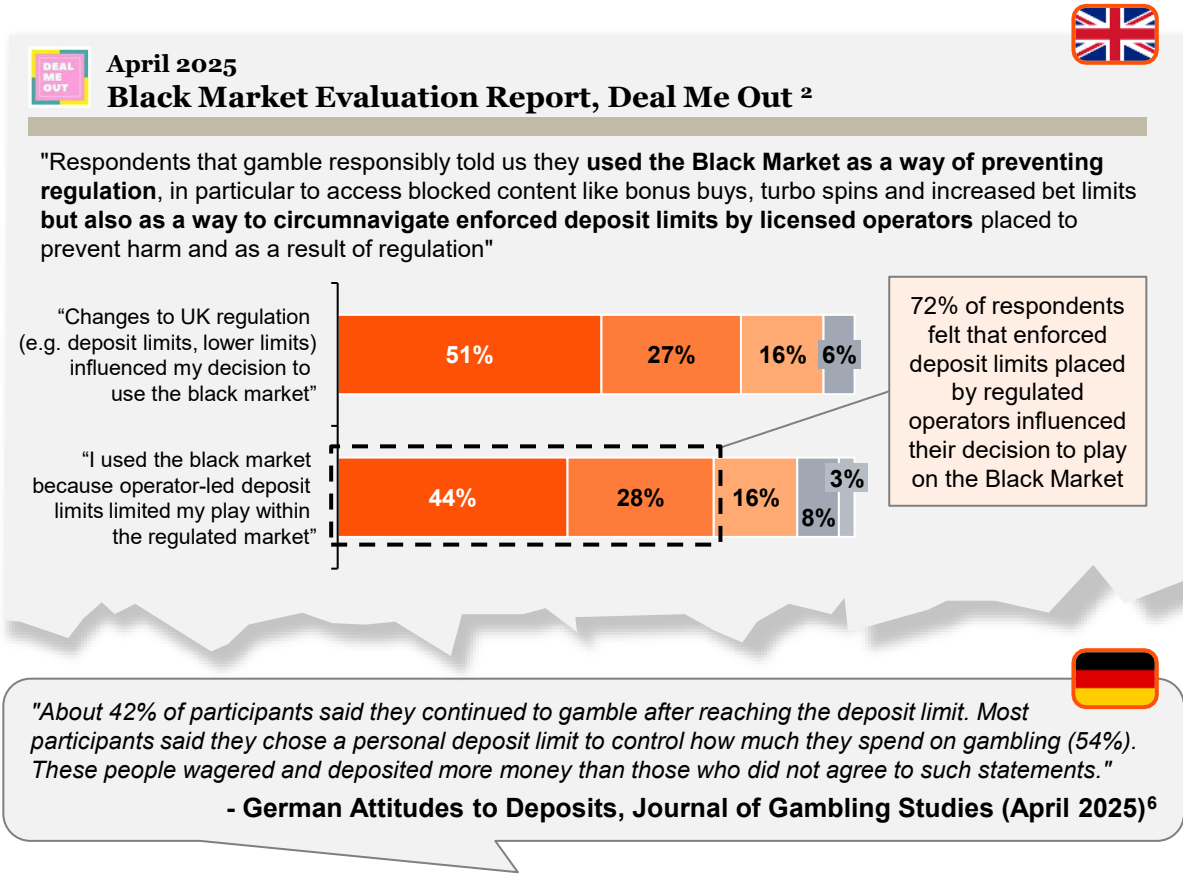
European surveys consistently find that wider regulatory restrictions (e.g. ID checks, deposit limits) also result in players considering switching to unlicensed operators

Avoiding deposit limits and identify checks resulting from regulations are identified in European surveys as key reasons players may switch to unlicensed operators

	UK ¹ <i>Frontier Economics</i>	Denmark ² <i>Spillemyndigheden</i>	Sweden ³ <i>Spelinspektionen</i>	France ⁴ <i>ANJ/Strategy&</i>	Greece ⁵ <i>HGC</i>
Avoid deposit limits	✓	✓	✓	✓	✓
Avoid ID/document checks	✓✓	✓	✓	✓	✓✓
Anonymity	✓	—	—	—	✓✓
Avoid self-exclusion measures	✓	✓✓	—	—	—
Flexible payment options	✓	✓	—	—	—

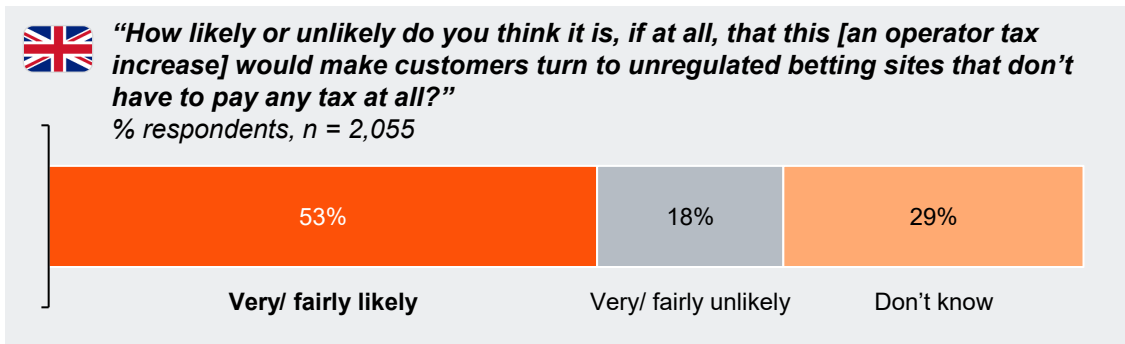
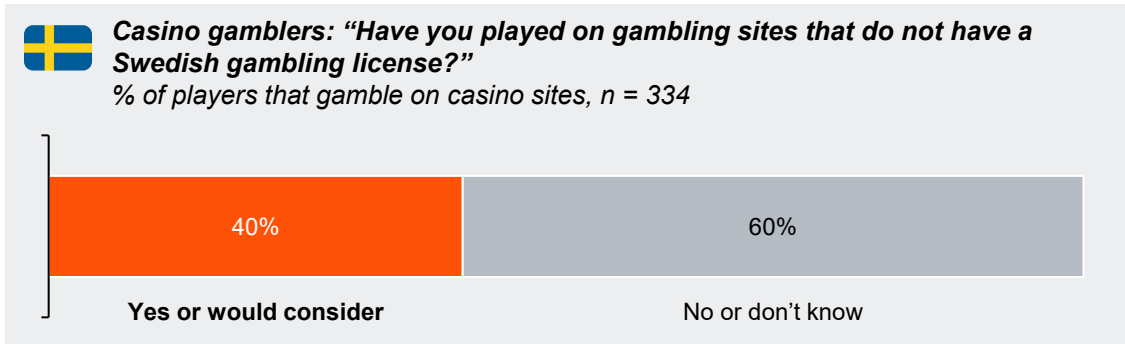
Key: ✓✓ = Top 3 Reasons ✓ = Top 10 Reasons — = Outside Top 10 Reasons / not considered in survey

Abbreviations: HGC= Hellenic Gambling Commission; Sources: 1) *The size and economic costs of black market gambling in Great Britain*, Fronter Economics (September 2024), 2) *Danes largely gamble on sites with a Danish licence*, Spillemyndigheden (January 2024), 3) *Public control of the gambling market - Final report*, Spelinspektionen (September 2024), 4) *Study on the illegal offer of online gambling accessible in France – Report prepared for the ANJ*, PwC Strategy& (December 2023) , 5) *Annual Report 2024*, Hellenic Gambling Commission, 6) *Attitude Towards Deposit Limits and Relationship with Their Account-Based Data Among a Sample of German Online Slots Players*, Journal of Gambling Studies (April 2025)

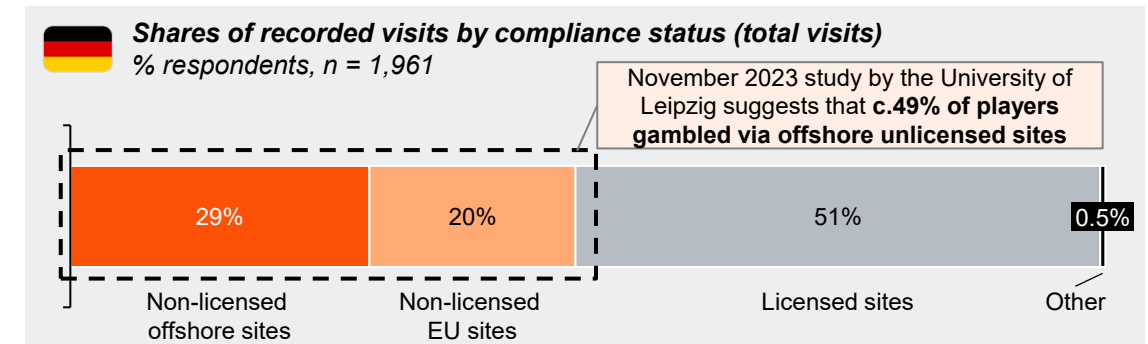


Surveys also indicate that 40-53% of SE and UK players are open to using unlicensed operators, with unlicensed sites making up c.50% of player activity in FR and DE

A significant proportion of players across European jurisdictions indicate that they would be willing to consider using unlicensed gambling sites



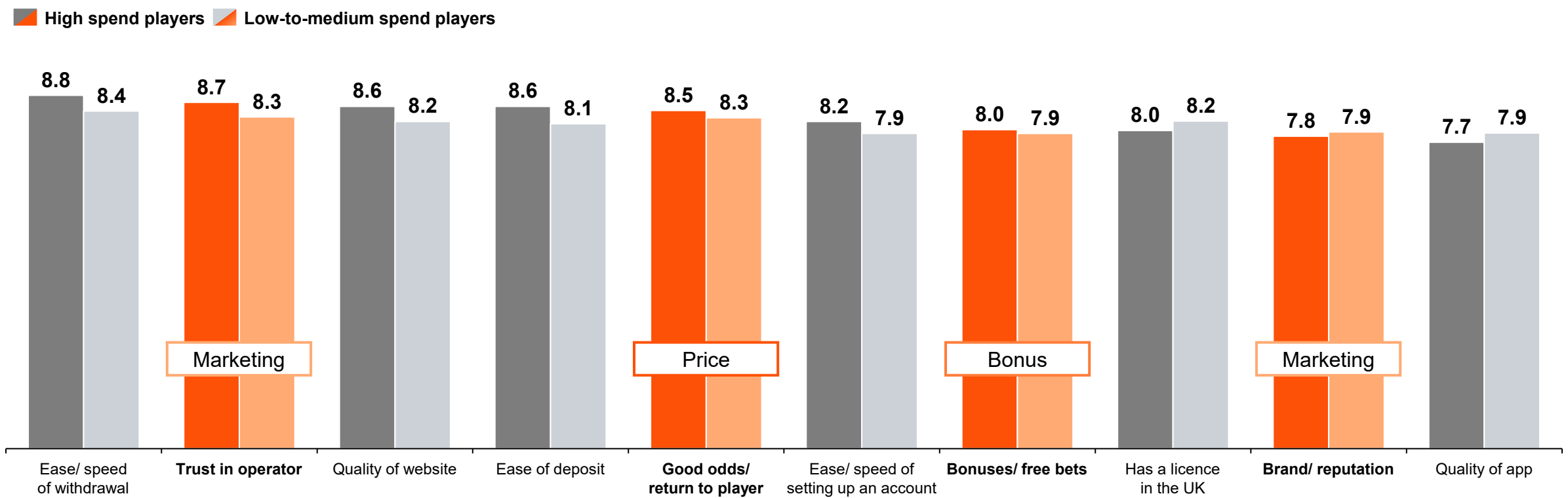
In France and Germany, both markets with tight regulatory environments, around half of players engage with offshore sites



Sources: The degree of channelization on the Swedish online gambling market, Copenhagen Economics (April 2020), YouGov / Betting & Gaming Council Survey Results, YouGov (May 2025), ANJ Annual Report 2024, ARJEL Annual Report 2023, An Analysis of the Latest Developments in the Online Gambling Marketing the Wake of the Interstate Treaty on Gambling 2021, University of Leipzig commissioned by German Online Casino Association and the German Sports Betting Association (DSWV) (November 2023)

Price, bonusing, and marketing are all more important for higher spend players compared to the lower spend players...

Top 10 key purchase criteria (KPC) for high spend players¹ selecting an operator versus low-to-medium spend players (UK online gambling respondents) 2020, Average rating out of 10, n=2,363²

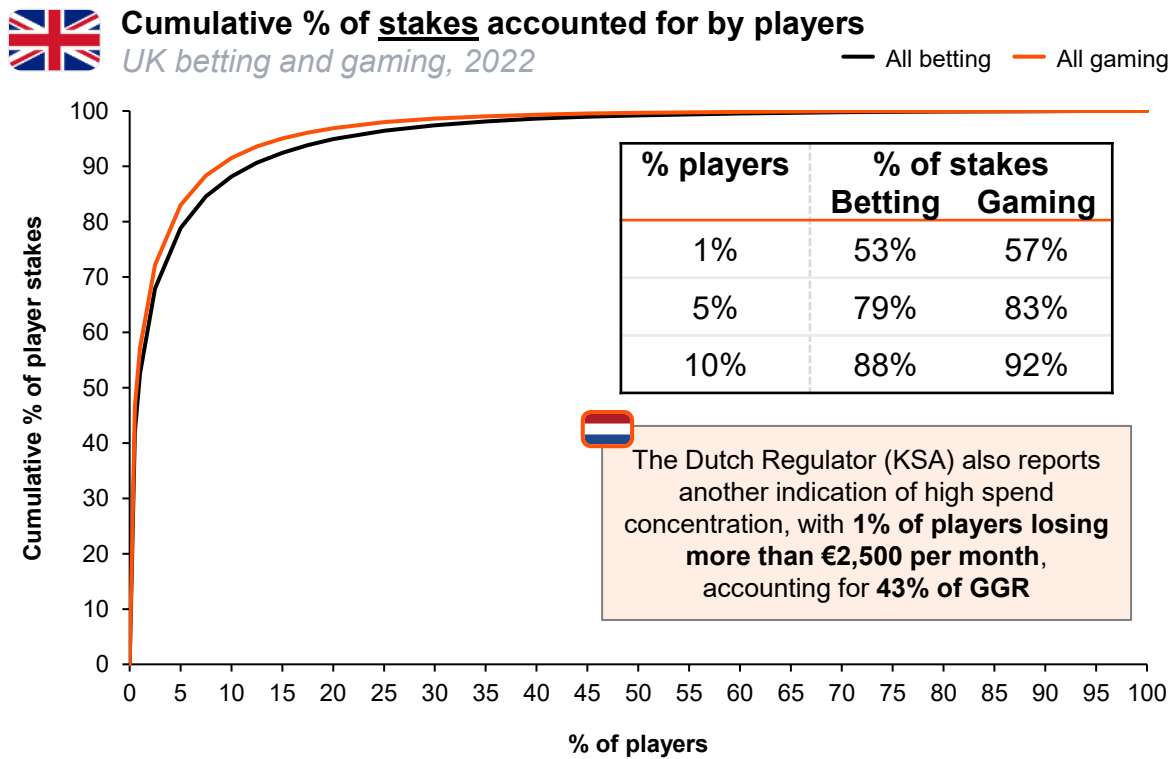


Notes: 1) High spend players are those that estimate to have bet/ played online more than £75 in an average month (in the last 12 months), and low-to-medium spend players are those that estimate to have bet/ played online between £0-75 in an average month (in the last 12 months), 2) Data from PwC Survey December 2020 | Source: PwC Survey (December 2020), *Exploring consumer journeys using gambling promotional offers and incentives*

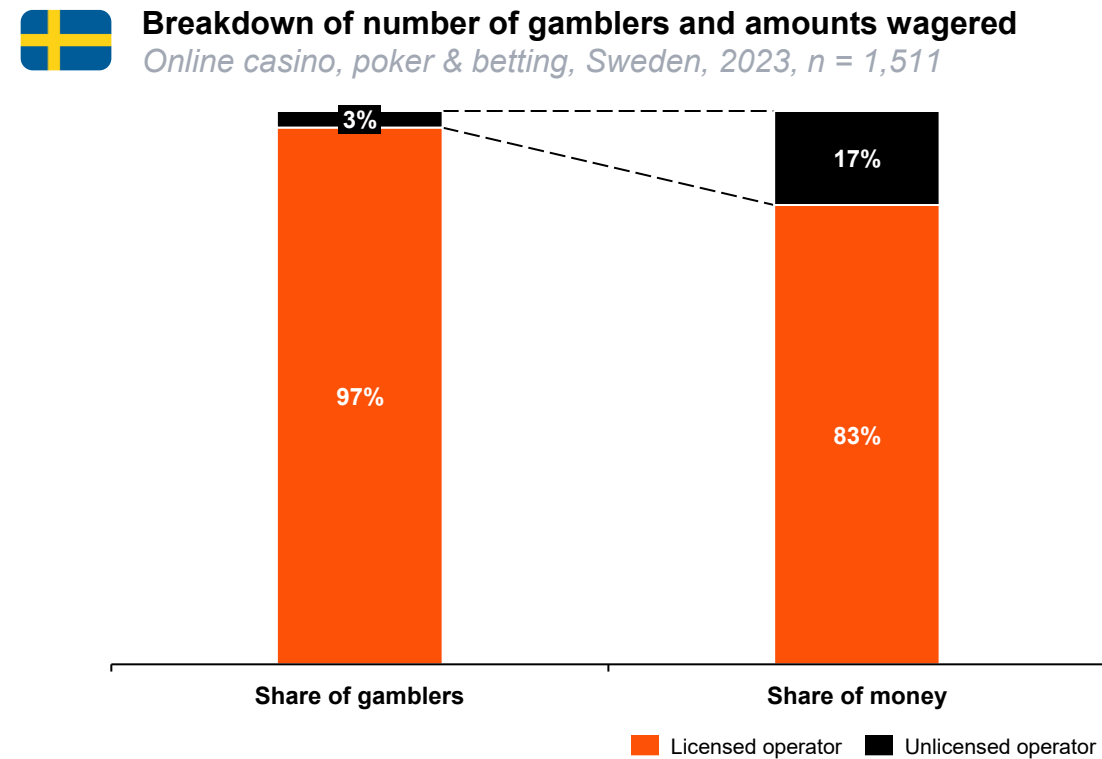
... and high spend concentration in online gaming and betting means high spend player engagement has a disproportionate impact on regulated market performance

High spend players

In the UK, gambling has a high spend concentration - 5% of players account for c.80% of stakes...



... with evidence in Sweden that a small percentage of gamblers contribute more of the spend on the unlicensed market





5

Market Outcomes

We have assessed how regulatory and tax changes have impacted market size and growth, online channelisation and tax revenue

This report looks across 3 key market metrics to evidence market outcomes observed historically across different regulatory environments

A Market Size and Growth

Static view

Evidence to test the correlation between the regulatory environment and **online onshore GGR** across geographic regions

Historical Growth

Evidence to test the historical impact of changing regulatory environment on **GGR Growth**

Deep Dives

Case-study, focusing on the historical growth and size of the GGR market of select jurisdictions



B Online Channelisation

Evidence to test the correlation between the regulatory environment and **channelisation (the proportion of online spend that takes place with licensed onshore operators)** across geographic regions

Evidence to test the historical impact of changing regulatory environment on online **channelisation**



C Tax Revenue

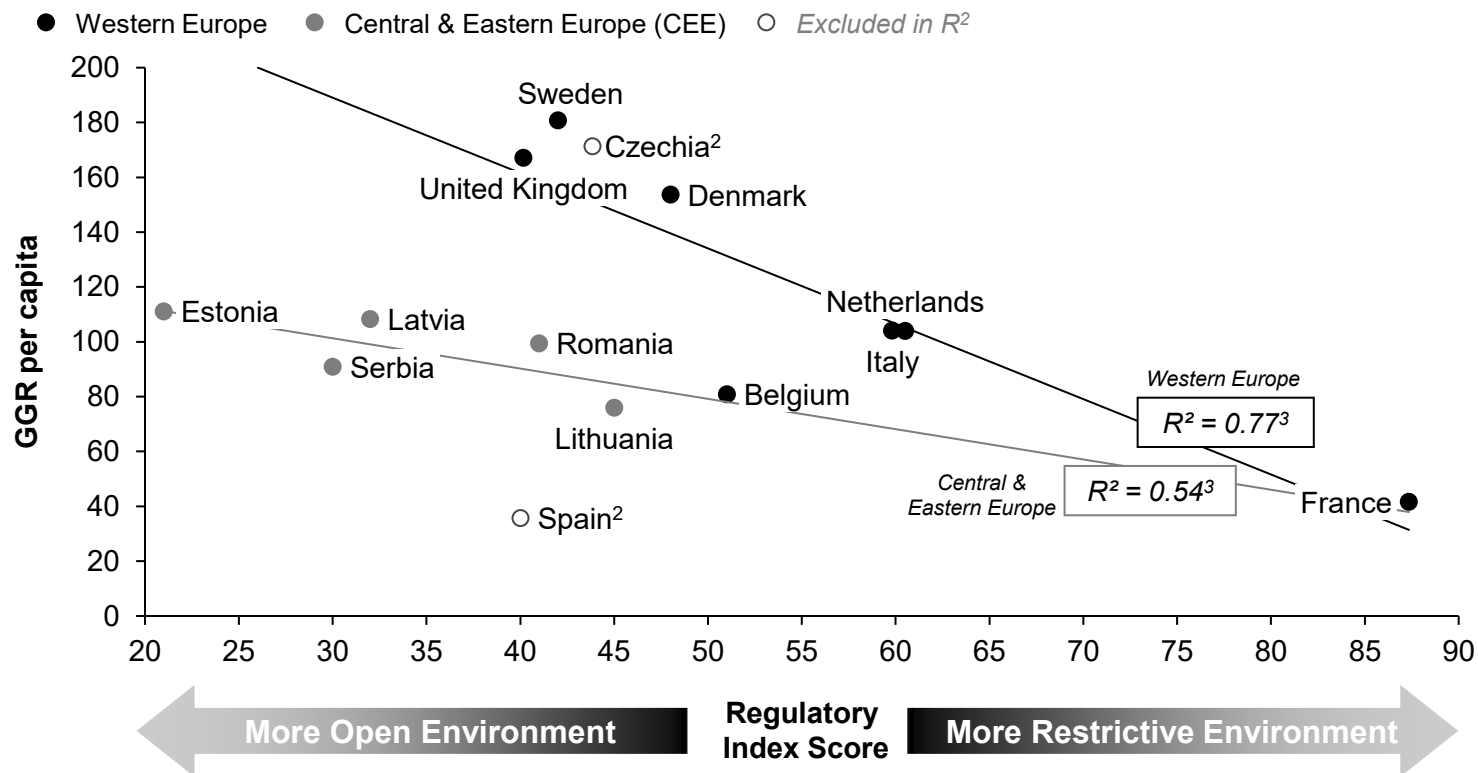
Evidence to test the correlation between the regulatory environment and **betting and gaming tax revenue** across geographic regions

Evidence to test the historical impact of changing regulatory environment on **tax revenue**



Across Europe, markets with more restrictive regulatory environments tend to result in less spend with onshore licensed operators overall...

Impact of regulatory environment on online betting and gaming onshore GGR per capita¹ Calendar year 2024, £



- There is moderate correlation ($R^2=0.5-0.8$) between the regulatory environment and GGR per capita, with lower spend in jurisdictions with more restrictive regulatory regimes
- Product mix (betting, gaming, lottery split), channel mix (online vs. land-based) and general affluence in a jurisdiction also contribute towards total GGR per capita
 - Western Europe generally has higher GGR per capita, reflecting higher average levels of GDP per capita
- *Given time lags for markets to respond to regulatory changes, variance across GGR per capita is expected. Therefore, markets that experienced significant regulatory liberalisation in recent years have not been included in this analysis as they demonstrate different trends in onshore GGR*

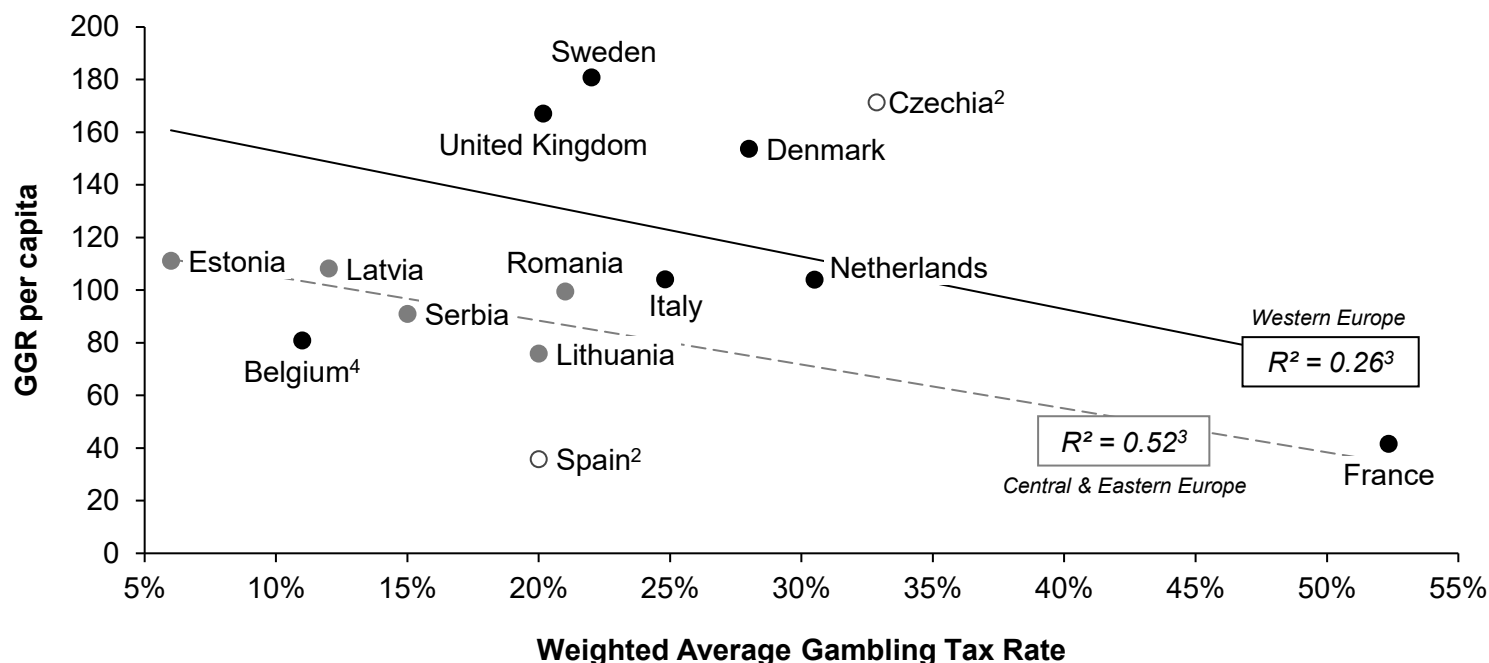
Notes: 1) Adult capita. Excludes jurisdictions with stakes-based taxation regime and liberalising regulation (Hungary, Slovakia and Greece) 2) Higher spend in Czechia is potentially linked to higher GDP per capita vs. other CEE jurisdictions and cultural factors. In Spain the high share of lotteries (47% of total GGR) is comparable to France (43%) and only ~14% of GGR is online, potentially contributing to lower online betting and gaming GGR per capita 3) Czechia and Spain excluded in respective R^2 calculations, if included $R^2 = 0.02$ CEE and 0.26 Western Europe | Source: VIXIO, H2GC, World Data, PwC Analysis

...this trend is also seen when comparing regulated spend with tax rates, however the correlation is less strong in Western Europe

Impact of tax rate on online betting and gaming onshore GGR per capita¹

Calendar year 2024, £

● Western Europe ● Central & Eastern Europe (CEE) ○ Excluded in R^2



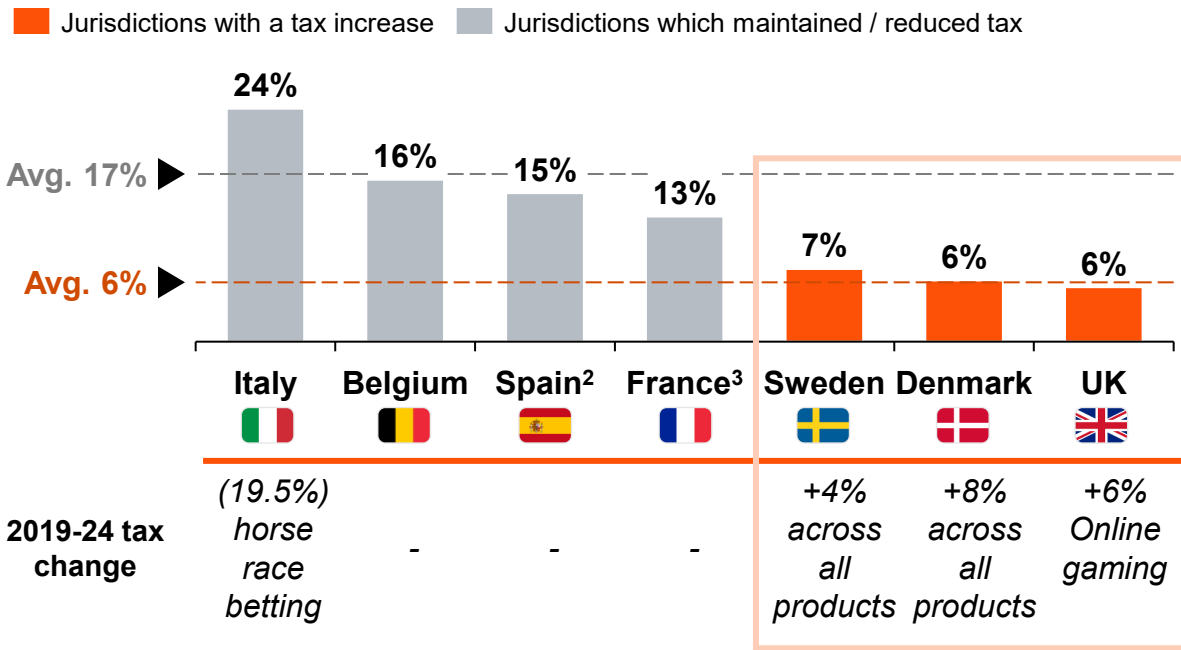
- There is a weaker correlation in Western Europe ($R^2=0.26$) between the tax rate alone and GGR per capita when compared to the correlation between GGR per capita and regulatory index score ($R^2=0.77$).
- However, the level of correlation in CEE is similar ($R^2=0.52$ vs 0.54).
- *Given time lags for markets to respond to regulatory changes, variance across GGR per capita is expected. Therefore, markets that experienced significant regulatory liberalisation in recent years have not been included in this analysis as they demonstrate different trends in onshore GGR*

Notes: 1) Adult capita. Excludes jurisdictions with stakes-based taxation regime and liberalising regulation (Hungary, Slovakia and Greece), 2) Higher spend in Czechia is potentially linked to higher GDP per capita vs. other CEE jurisdictions and cultural factors. In Spain the high share of lotteries (47% of total GGR) is comparable to France (43%) and only ~14% of GGR being online, potentially contributing to lower online betting and gaming GGR per capita, 3) Czechia and Spain excluded in respective R^2 calculations, if included $R^2 = 0.33$ CEE and 0.10 Western Europe with the CEE trendline changing to a correlation of increasing tax increasing GGR per capita, 4) Belgium has a limited number of licences permitted for each product category. Excluding Belgium, and Spain, Western Europe $R^2 = 0.77$ | Source: H2GC, Desktop Research, PwC Analysis

GGR grew across Western Europe 2019-2024, however jurisdictions that experienced a tax increase grew more slowly vs. those where the tax rate was stable/ declined

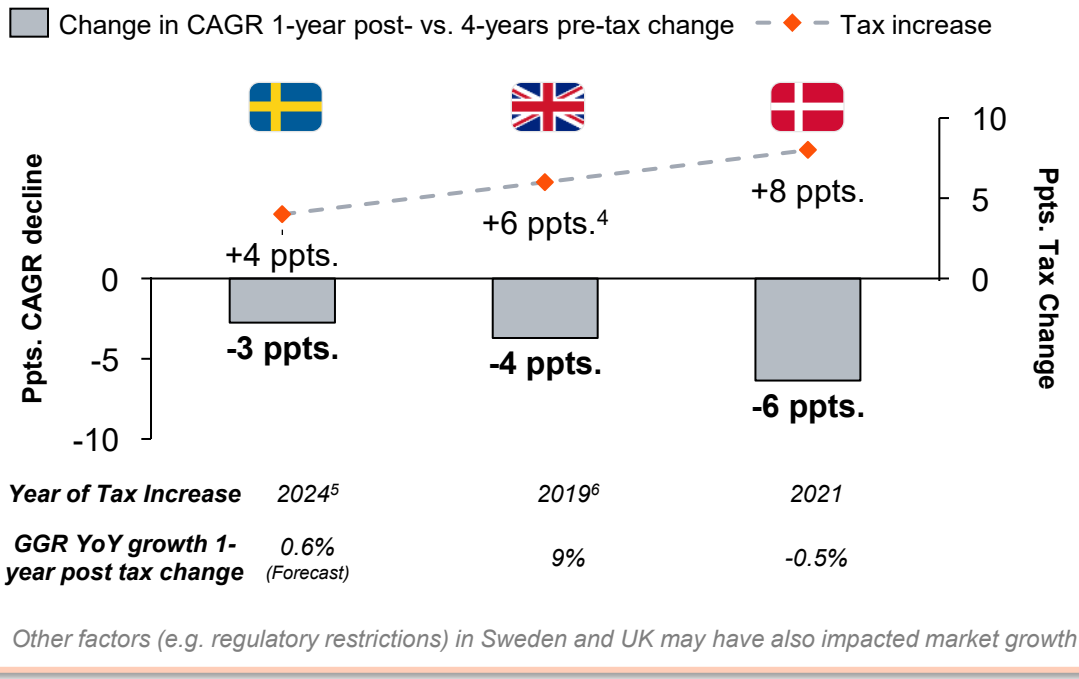
Western European jurisdictions which experienced an increase in tax grew slower vs. jurisdictions that did not experience an increase

Online onshore GGR growth – Western Europe
2019-2024 Compound Average Growth Rate (CAGR) %



Onshore growth declined the year after a tax increase was introduced in Sweden, UK, and Denmark

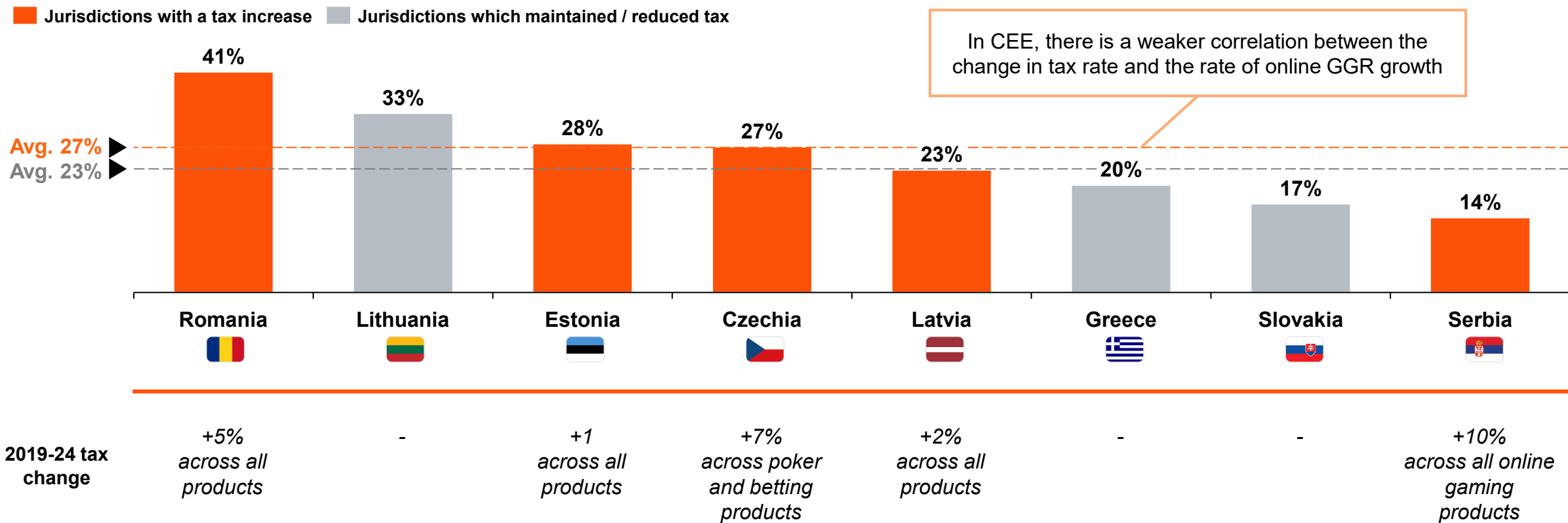
Weighted average gambling tax rate increase vs. change in onshore¹
GGR growth rate %, 1-yr post-tax⁴ vs. 4-yr pre-tax



Notes: 1) Onshore refers to GGR attributed to operators with onshore licences in each jurisdiction; 2) Spain’s headline tax rate on gambling is 20% GGR, although from 2018 it is reduced to 10% GGR if the operator is based in either Ceuta or Melilla; 3) France from 2020 to 2024 as changed tax basis from stakes to GGR from 2020; 4) Online Gaming only; 5) Effective from 1 July 2024, 2025 forecast data 6) Effective from 1 April 2019 | Source: H2GC, PwC Analysis
PwC - European regulation & taxation market study

GGR also grew across Central & Eastern European jurisdictions, however there is a weaker correlation between change in tax rate and rate of market growth

Online onshore¹ GGR growth – Central & Eastern Europe
2019-2024 Compound Average Growth Rate (CAGR) %



Other factors including regulatory restrictions may have also impacted market growth across CEE jurisdictions

Notes: 1) Onshore refers to GGR attributed to operators with onshore licences in each jurisdiction | Source: H2GC, PwC Analysis



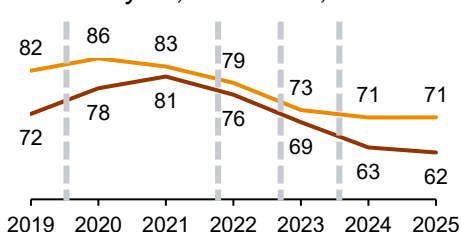
Following tax and regulatory changes in Sweden, online GGR grew slower onshore, with increases in offshore betting and gaming GGR growth

Online Gambling Market Overview

— Betting — Total — Tax / Regulatory Change
— Gaming

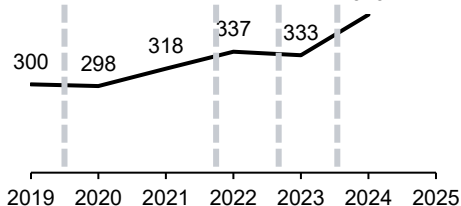
Channelisation

Calendar year, % turnover, onshore



Tax take

(online and land-based, ex. lotteries)¹, £m

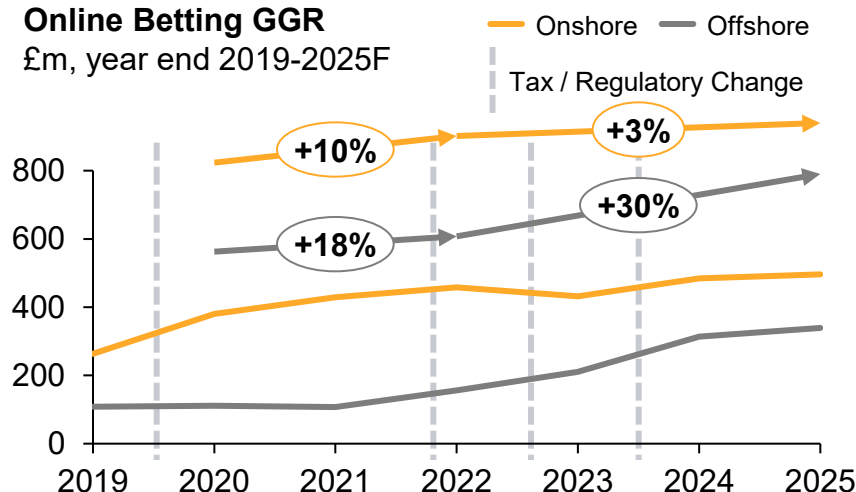


Sweden first regulated its online market in Jan 2019. It subsequently introduced several gaming limits in July 2020 and Sept 2022, B2B licensing in July 2023 and in July 2024 Sweden increased betting and gaming taxes from 18% to 22% GGR

- High growth rates in 2020 driven by initial regulation and Covid-19
- In years which saw tightening regulations or increases in tax rate, tax increase onshore GGR growth slowed and offshore GGR saw an increase in GGR
- Sweden's regulatory changes focused primarily on gaming, with slower onshore GGR growth than betting alongside 36% offshore growth observed end of 2020-22

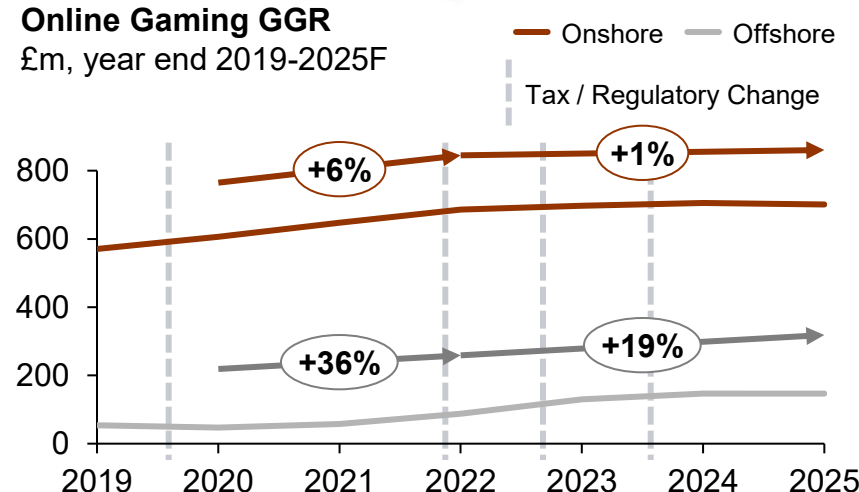
Online Betting GGR

£m, year end 2019-2025F



Online Gaming GGR

£m, year end 2019-2025F



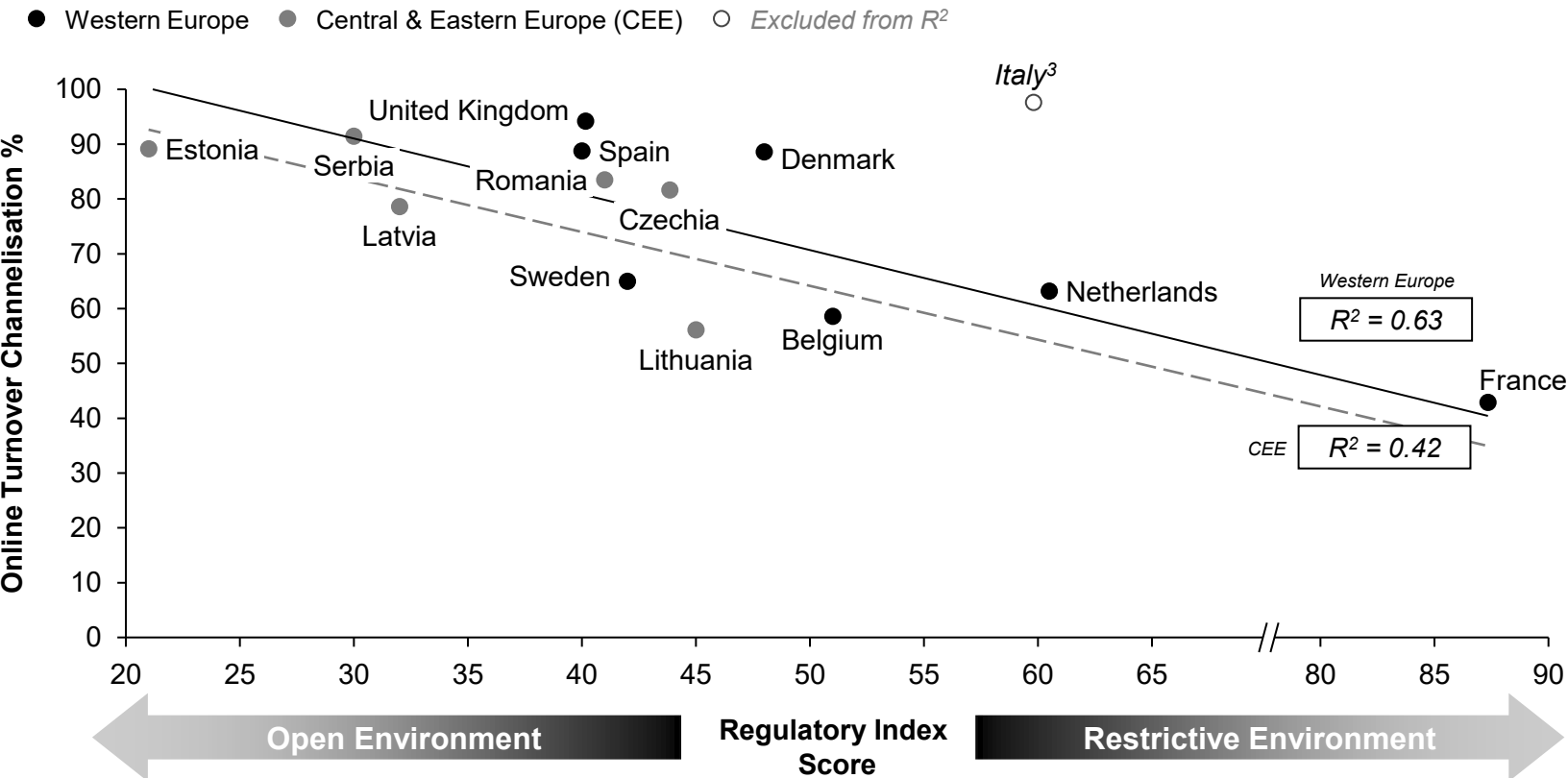
March 2025 Swedish Gambling Authority Report

"The most prominent push factors are gambling companies imposing limits on unprofitable customers and self-exclusion...factors that attract or draw Swedish players to the unlicensed market include **marketing (e.g. bonus offers and VIP programmes)** and **differences between the offerings** available on the licensed market and the unlicensed market"...In a 2024 survey "19 per cent of those who had gambled unlicensed stated that they had done so because of **better chances of winning**"

Notes: 1) Tax revenue includes online and land-based tax revenue for both betting and gaming, excluding lotteries as reported by jurisdiction specific sources. | Source: H2GC, PwC Analysis, Desktop Research, statskontoret.se

Across Europe, markets with more restrictive regulatory environments tend to result in lower levels of channelisation (i.e. a larger offshore market)

Impact of market environment on online turnover channelisation^{1 2}
%, Calendar year 2024



Studies on channelisation consider a combination of turnover (stakes) and GGR. This report considers turnover channelisation in line with previous PwC reports (2019, 2021 and 2023), UK Frontier Economics (2024), and Swedish Gambling Authority (2025)

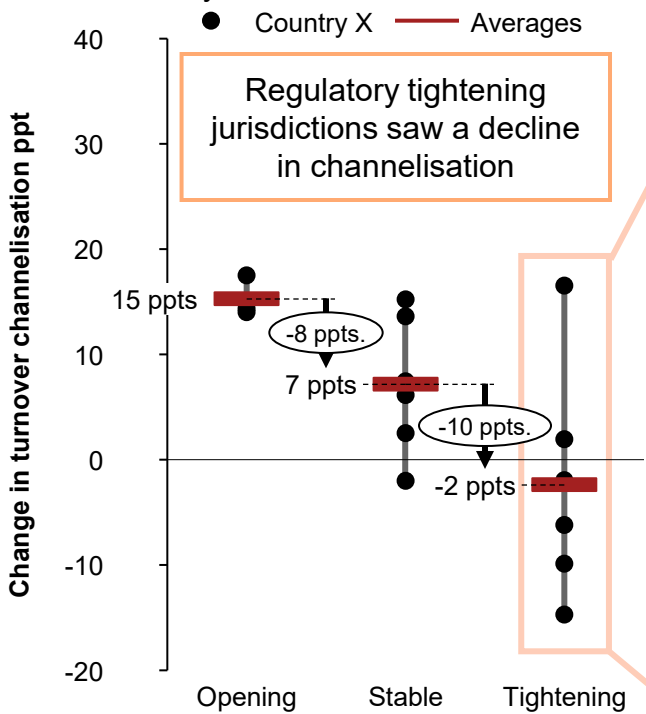
- There is some correlation ($R^2 = 0.4-0.6$) between the regulatory environment and online turnover channelisation across both Western Europe ($R^2 = 0.63$) and Central & Eastern Europe ($R^2 = 0.42$)
- Several channelisation studies also acknowledge the influence of additional factors on online channelisation %, not captured by the Regulatory Index (e.g. self-exclusion, range of games available, flexibility of payment options such as cryptocurrency, number of unlicensed operators and their bonusing and marketing activity)
- Given time lags for markets to respond to regulatory changes, and other influencing factors, variance across channelisation is expected. Therefore, markets that experienced significant regulatory liberalisation in recent years have not been included in this analysis

Notes: 1) Excludes jurisdictions with stakes-based taxation regime and liberalising regulation (Hungary, Slovakia and Greece), 2) Online turnover channelisation refers to the proportion of gambling activity (i.e., the total amount staked or wagered) that takes place within onshore licensed and regulated online gambling channels, compared to unlicensed or offshore operators 3) Italy excluded due to lack of H2GC data confidence, La Gazzetta dello Sport estimates ~82% channelisation vs. ~97% from H2GC, if included Western Europe $R^2 = 0.39$ | Source: La Gazzetta dello Sport, VIXIO, H2GC, PwC Analysis, Frontier Economics, Swedish Regulator

Tightening jurisdictions experienced lower growth in channelisation overall and a fall in channelisation in the year following the change

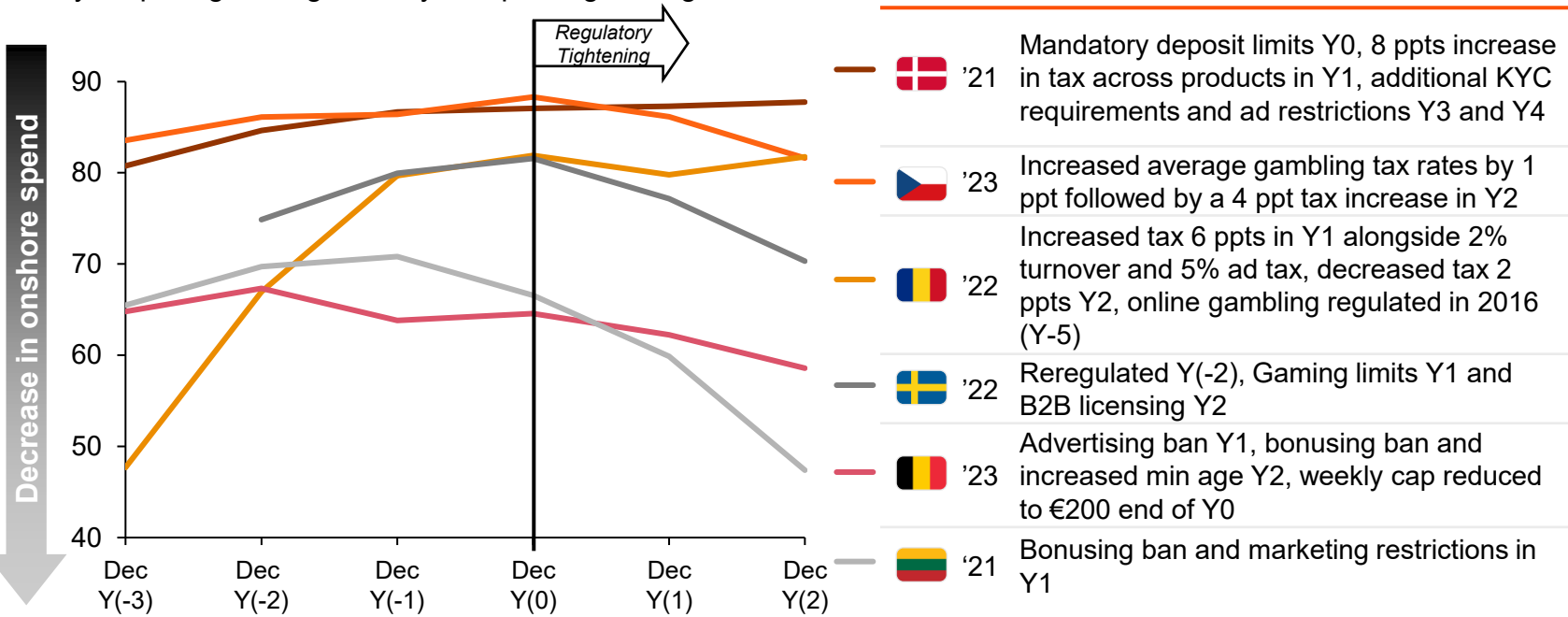
Ppt change in online channelisation % - by regulatory index group¹

Calendar year 2019-2024, n=15²



Most countries which experienced tightening regulation saw a reduction in channelisation the year in which regulation tightened (Y0 to Y1)

Online channelisation % before and after a regulation tightened
%, 3-year pre-tightening until 2-years post-tightening³



Note: 1) Online channelisation refers to the proportion of gambling activity (i.e., the total amount staked or wagered) that takes place within onshore licensed and regulated online gambling channels, compared to unlicensed or offshore operators, 2) Excludes stakes-based taxation jurisdictions, the Netherlands and France ; 3) Y(1) marks end of calendar year in which regulatory tightening occurred, e.g for a regulatory change in 2022 Y(0) represents Dec 2021 and Y(1) represents Dec 2022
Source: H2GC, PwC Analysis



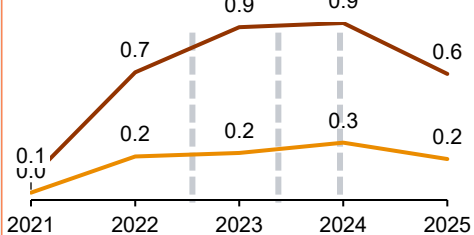
The Netherlands regulated online gambling in 2021; subsequent tax increases & regulatory tightening have resulted in declines across GGR & channelisation

Online Gambling Market Overview

— Betting — Total — Tax / Regulatory Change
— Gaming

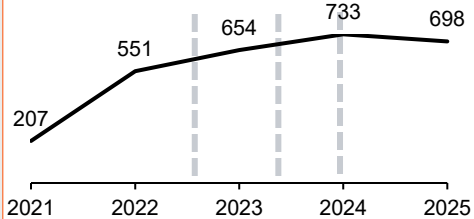
GGR

Calendar year, £bn, onshore



Tax take

(online and land-based, ex. lotteries)¹, £m

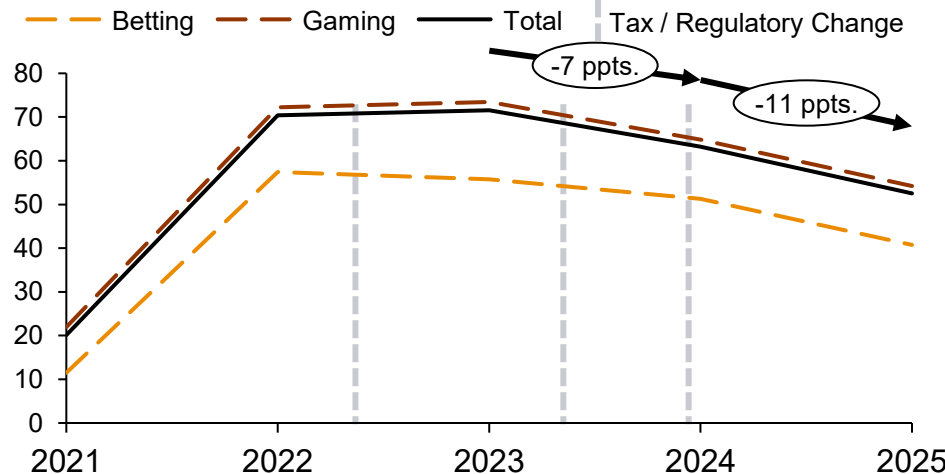


Effective October 2024, the Netherlands introduced a net deposit limit, and announced a c.4 ppt tax increase, effective from January 2025.

- High growth rates to 2023 were driven by 2021 regulation of online gambling with player activity moving to onshore licensed operators
- Effective from July 2023, online providers were no longer allowed to conduct untargeted advertising & sign new sponsorship contracts
- H2GC forecasts an 11 ppt channelisation decline following 2025 tax increase and the Dutch regulator has also forecast tax revenue decline of 9% in 2025 vs 2024, (detailed on p54)

Online Channelisation % - turnover

% , year end 2019-2024



2025

Dutch Gambling Authority Report

*"The KSA estimates that the BSR³ [GGR] of the **illegal market will reach €1.2 billion in 2025**. Because several measures were implemented in the online market in quick succession [...] it remains difficult to draw conclusions about the cause of the growth of the illegal market."*

"The channelization rate is strongly influenced by the shrinking of the legal market as a result of the new player protection regulations."

Notes: 1) Tax revenue includes online and land-based tax revenue for both betting and gaming, excluding lotteries as reported by jurisdiction specific sources, 2) 2025 estimates from H2GC 3) BSR is 'Bruto Spel Resultaat' which translates from Dutch to Gross Gaming Revenue. | Sources: H2GC, Kansspelautoriteit



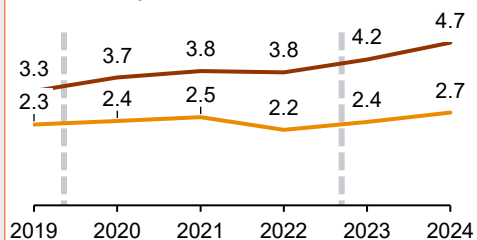
The UK has historically had one of the highest channelisation rates but there are indications this has reduced in recent years, following regulatory tightening

Online Gambling Market Overview

— Betting — Total Tax / Regulatory Change
— Gaming

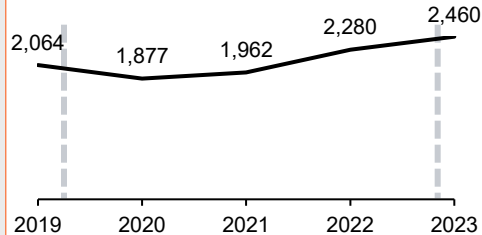
GGR²

Calendar year, £bn, onshore



Tax take (ex. lotteries)¹

£m



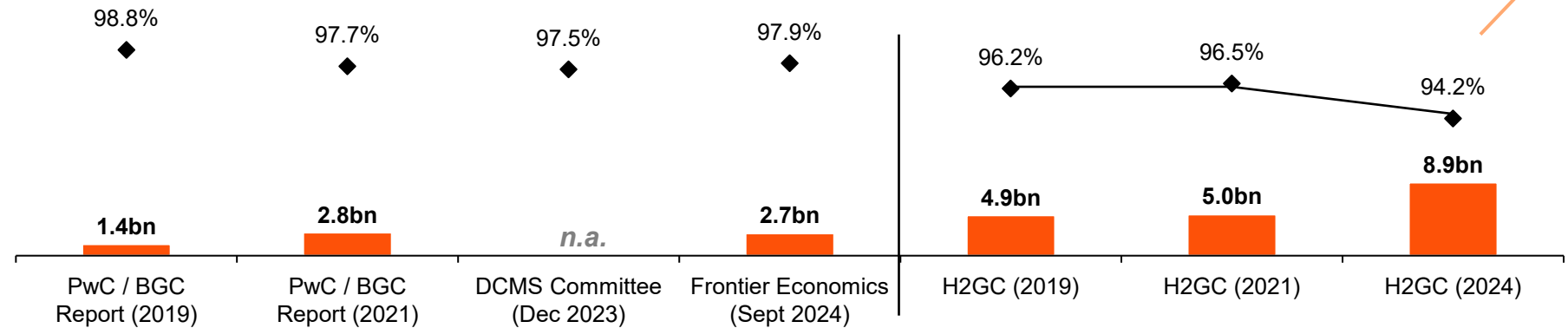
UK increased online gaming tax to 21% in April 2019, and introduced a range of regulatory tightening measures in 2023

- **Successive regulatory measures** have been implemented since 2019, alongside the Remote Gaming Duty increase from 15% to 21%
- This includes restrictions on HVC schemes; limits/ bans on spin speed, auto-plays and certain audiovisuals for online slots; and targeted ads restrictions on under-18s
- H2GC data shows the **size and growth of the unregulated market has increased in recent years** alongside the implementation of tighter regulations

UK online channelisation % and offshore size - turnover³

% / £bn, year end 2019-2024

◆ Onshore channelisation (%)
■ Size of offshore market (£bn)



September 2024
Frontier Economics



“...while the black market has until now been relatively small, it has the potential to grow.”

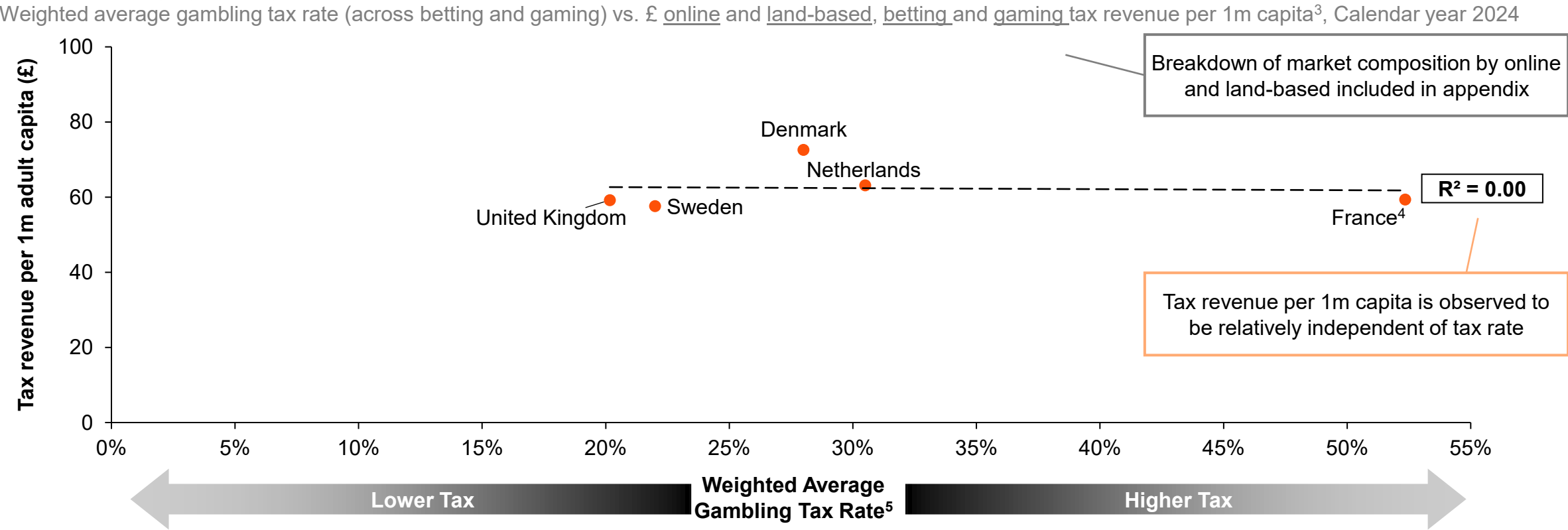
“New technologies and growing access to players are providing black market operators an opportunity to expand their reach”

H2GC estimates growth in the offshore market and a reduction in channelisation (the proportion of spend that takes place with licensed operators) since 2019, corresponding with a tightening of the regulatory environment

Notes: 1) Tax revenue includes online and land-based tax revenue for both betting and gaming, excluding lotteries as reported by jurisdiction specific sources, 2) H2GC data used for comparability across jurisdictions, comparison to UK Gambling Commission shown in Appendix 3) Online turnover channelisation refers to the proportion of gambling activity (i.e., the total amount staked or wagered) that takes place within onshore licensed and regulated online gambling channels, compared to unlicensed or offshore operators | Sources: UKGC, H2GC, House of Commons Culture, Media and Sport Committee, Frontier Economics, PwC Review of unlicensed online gambling in the UK (Feb 2021), UK Government White Paper *High Stakes: Gambling Reform for the Digital Age* (Apr 2023), PwC analysis

Tax revenue per capita is relatively flat across Western European jurisdictions with a wide range of average gambling tax rates

Impact of average gambling tax rate on tax revenue¹ – selected jurisdictions²

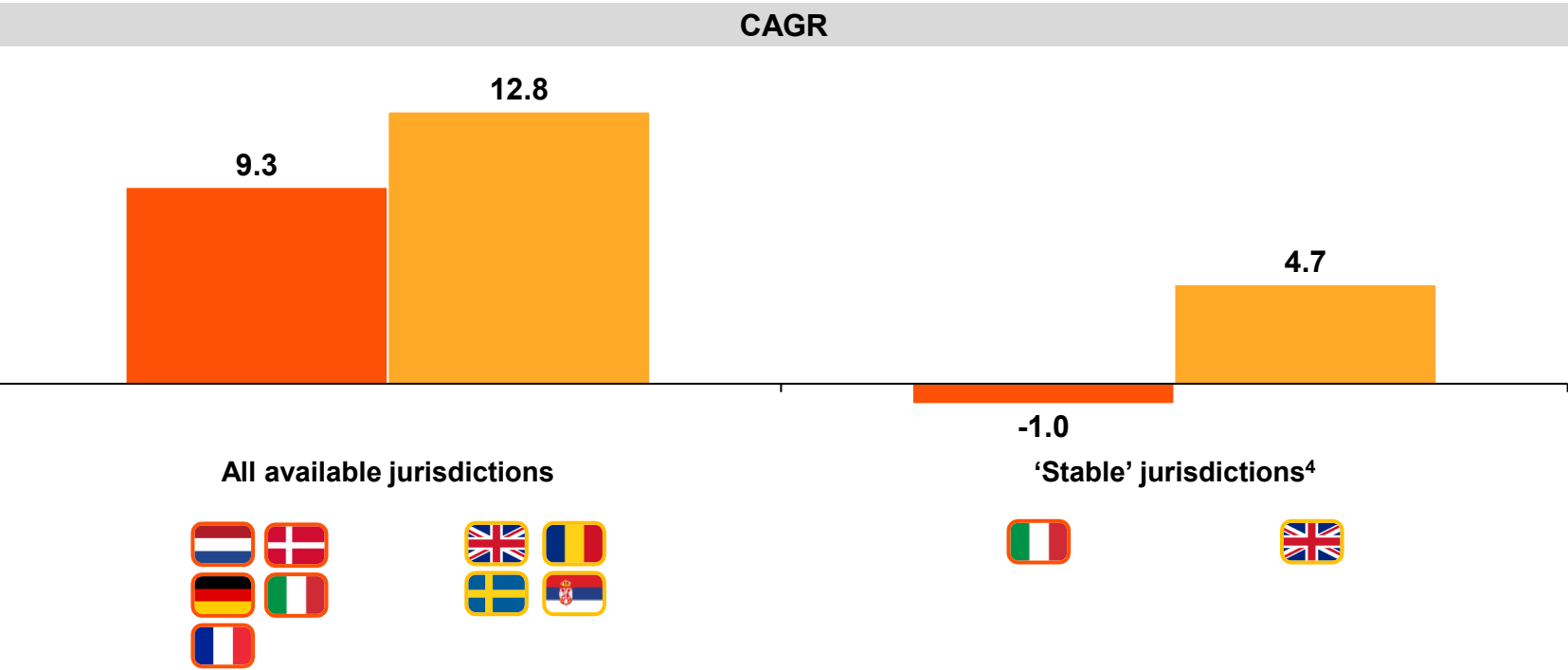


Notes: 1) Tax revenue includes online and land-based tax revenue for both betting and gaming, excluding lotteries as reported by jurisdiction specific sources 2) Includes Western European jurisdictions where tax receipts data is available from government authorities. Excludes CEE due to data availability. Italy is not shown on the chart as land-based slots are taxed on a stakes basis, resulting in total tax receipts per capita not being comparable to other Western European jurisdictions. See Appendix for further details. 3) Adult capita, 4) France regulator tax receipt data does not split out lottery. Lottery tax receipt in France is estimated based on GGR and lottery tax rate (76% of GGR). Tax revenue per 1m adult capita could therefore be overestimated vs. calculated rate (see Appendix) 5) Online betting and gaming | Sources: H2GC, ECB, Government Tax Revenue Agencies, PwC Analysis

Over the past 5 years, tax revenue grew faster in jurisdictions with average gambling tax rates up to 25% vs. jurisdictions with higher tax rates

Growth in tax revenue from online and land-based betting and gaming¹, by jurisdiction²
CAGR %, 2019-2024³

Average gambling tax rate 26-50% Average gambling tax rate 5-25%

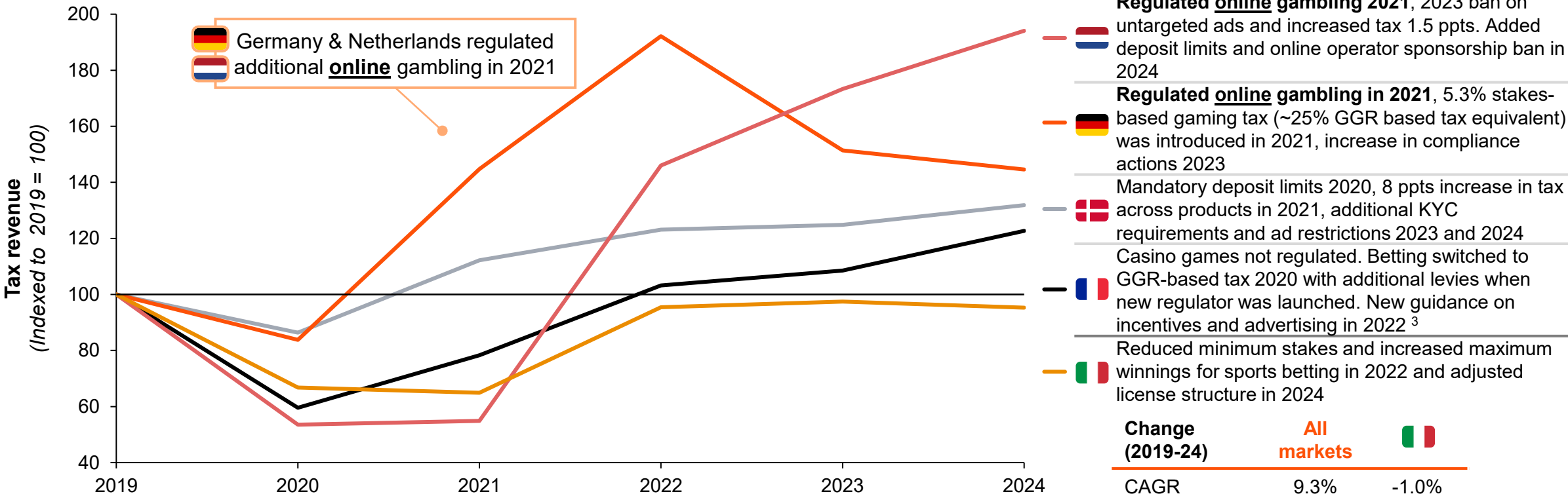


- On average, in jurisdictions for which tax revenue data is available, tax revenue grew faster in jurisdictions with lower (5-25%) tax rates vs. higher tax rates (26-50%)
- A similar trend is seen when comparing UK vs. Italy ("stable" jurisdictions). The UK (lower average gambling tax rate) grew tax revenue whilst tax revenue in Italy declined over the period

Notes: 1) Tax revenue includes online and land-based tax revenue for both betting and gaming, excluding lotteries as reported by jurisdiction specific sources, 2) The 9 countries included in the analysis are those where tax receipts data from government authorities was available, 3) France data is 2020-2024 as changed from stakes-based to GGR-based taxation in 2020, 4) Stable jurisdictions as set out on p18 | Source: VIXIO Country Reports, Government Tax Authorities, PwC Analysis

Jurisdictions with tax rates >25% experienced slower growth (9% p.a) in tax revenue on average since 2019 than jurisdictions with <25% tax rate (13% p.a) (1 of 2)

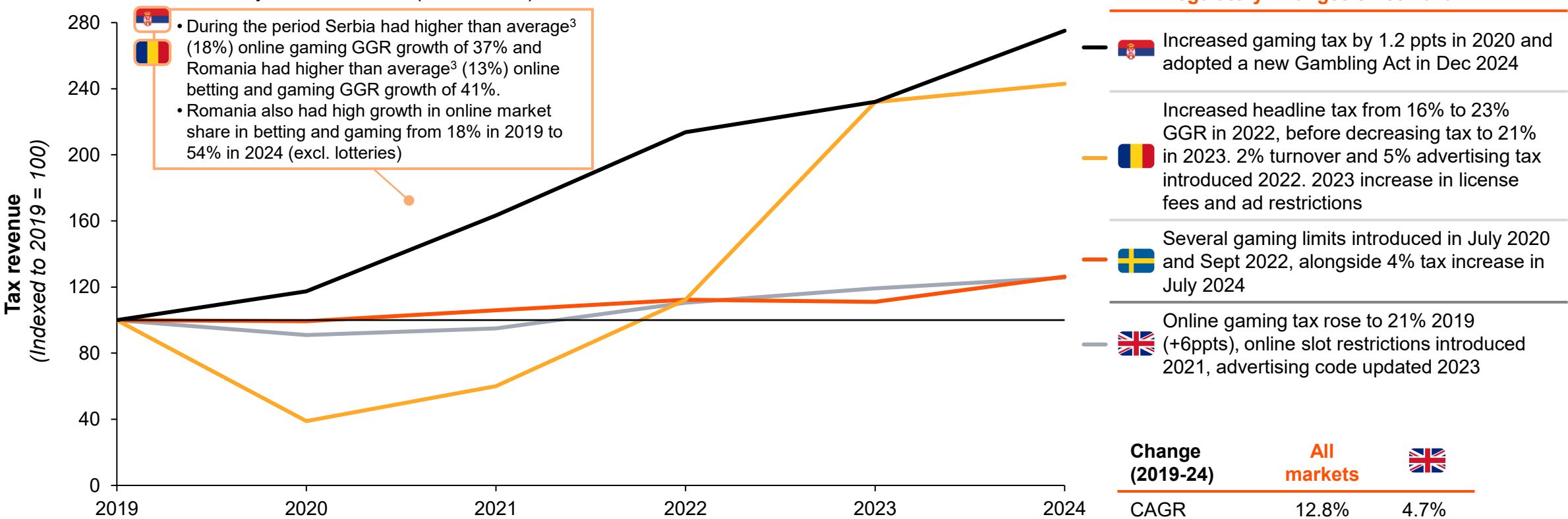
Higher tax¹ jurisdictions - Indexed tax revenue online and land-based betting and gaming, by jurisdiction²
 Indexed actuals Calendar year 2019-2024³, (2019 = 100)



Notes: 1) Higher tax jurisdictions are defined as those markets with tax rates between 26% to 50%, Lower tax jurisdictions have tax rates up to 25%, 2) The five countries included in the analysis are those where tax receipts data excluding lottery from government authorities was readily available, 3) France regulator tax receipt data does not split out lottery. Lottery tax receipt in France is estimated based on GGR and lottery tax rate (76% of GGR). France changed from stakes-based to GGR-based taxation in 2020 | Source: H2GC, VIXIO Country Reports, Government Tax Authorities, PwC Analysis

Jurisdictions with tax rates >25% experienced slower growth (9% p.a) in tax revenue on average since 2019 than jurisdictions with <25% tax rate (13% p.a) (2 of 2)

Lower tax¹ jurisdictions - Indexed tax revenue online and land-based betting and gaming, by jurisdiction²
 Indexed actuals, Calendar year 2019-2024, (2019 = 100)



Notes: 1) Higher tax jurisdictions are defined as those markets with tax rates between 26% to 50%, Lower tax jurisdictions have tax rates up to 25%, 2) The four countries included in the analysis are those where tax receipts data excluding lottery from government authorities was readily available; 3) Weighted average of 17 selected European jurisdictions | Source: H2GC, VIXIO Country Reports, Government Tax Authorities, PwC Analysis

Following tax increases, UK and Denmark experienced growth in market GGR and tax receipts but Germany and Netherlands saw declines in tax receipts

Indexed tax revenue from online only onshore gaming – selected jurisdictions¹
Indexed actuals from before/after year of significant tax change, (Y0 = tax change year)

— Tax revenue (indexed) — Onshore GGR (indexed)

Tax revenue % change in first year after tax change

Tax revenue and onshore GGR continued to grow following tax increases in UK (to 21% tax) and Denmark (28%)...

...but declined in Germany (25%) and Netherlands (34%)

Data shown:

 **Online gaming tax & Gaming GGR²**

 **Online casino gaming tax & Gaming GGR**

 **Online slots & poker tax & Gaming GGR**

 **Online casino gaming tax & Gaming GGR³**

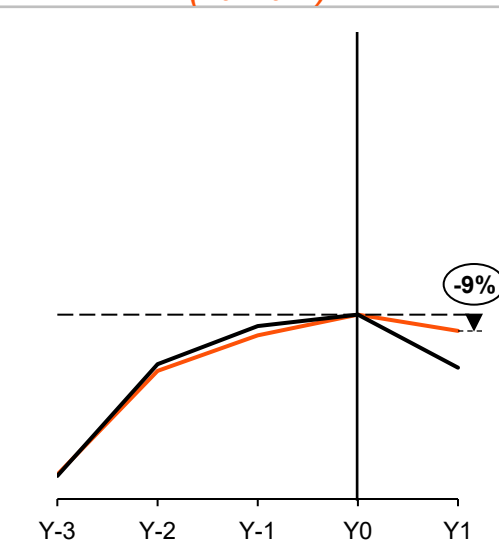
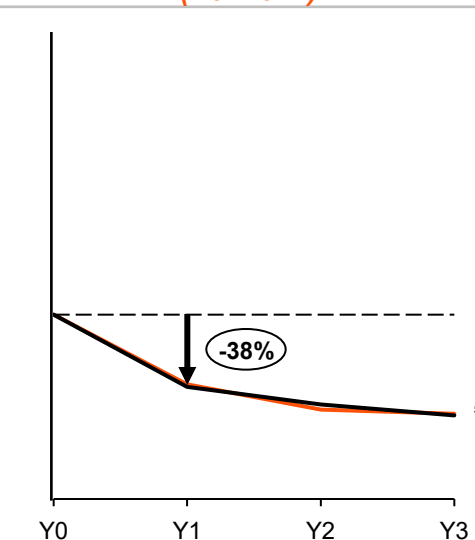
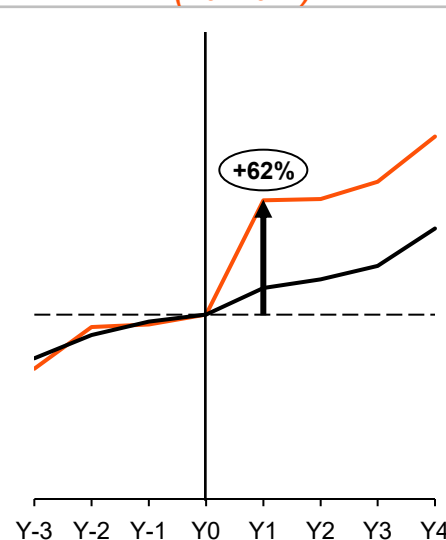
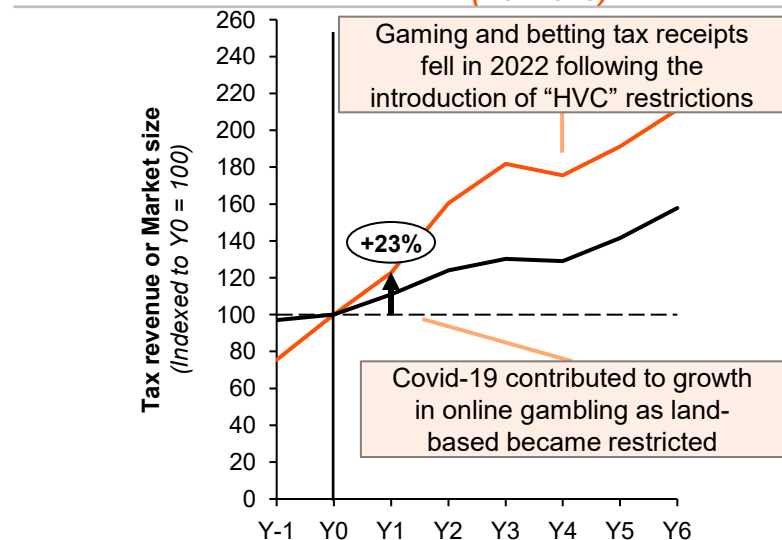
Tax rate change:

**15 → 21%
(Y0=2019)**

**20 → 28%
(Y0=2021)**

**n/a → 5.3% (stakes, ~25% GGR)⁴
(Y0=2022)**

**30.5 → 34.2%
(Y0=2024)**



Notes: 1) Jurisdictions included in the analysis are those where tax receipts data for online only was available from government authorities, 2) H2GC data used for comparability across jurisdictions, comparison to UK Gambling Commission shown in Appendix 3) 2025 forecast data included for the Netherlands as tax change occurred Jan 2025, forecast data from Dutch Gambling Regulator (KSA), 4) 25% estimate from Deutscher Online Casinoverband (DOCV), 5) Germany introduced a virtual slots & poker tax in July 2021 - tax revenue is shown annually from September to September and GGR is shown by calendar year due to data availability and reporting cycles, e.g. Y0 is Sept 2021 - Sept 2022 for tax revenue and Jan 2022 - Dec 2022 for GGR. Other jurisdictions tax revenue is shown annually based on calendar year. | Source: H2GC, VIXIO Country Reports, Government Tax Authorities, PwC Analysis



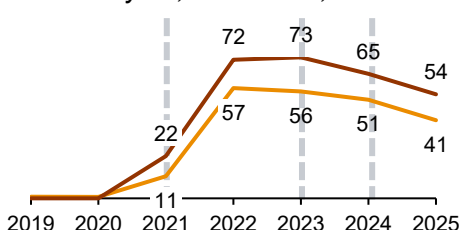
In Netherlands, tax take from online gambling is expected to decline by 9% in 2025 following significant tax & regulatory changes over the past 2 years

Online Gambling Market Overview

— Betting
— Gaming
Tax / Regulatory Change

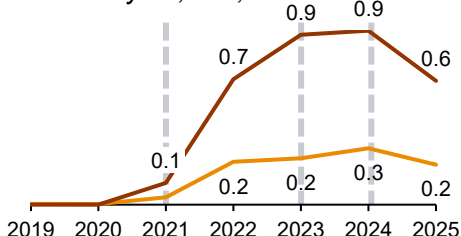
Channelisation

Calendar year, % turnover, onshore



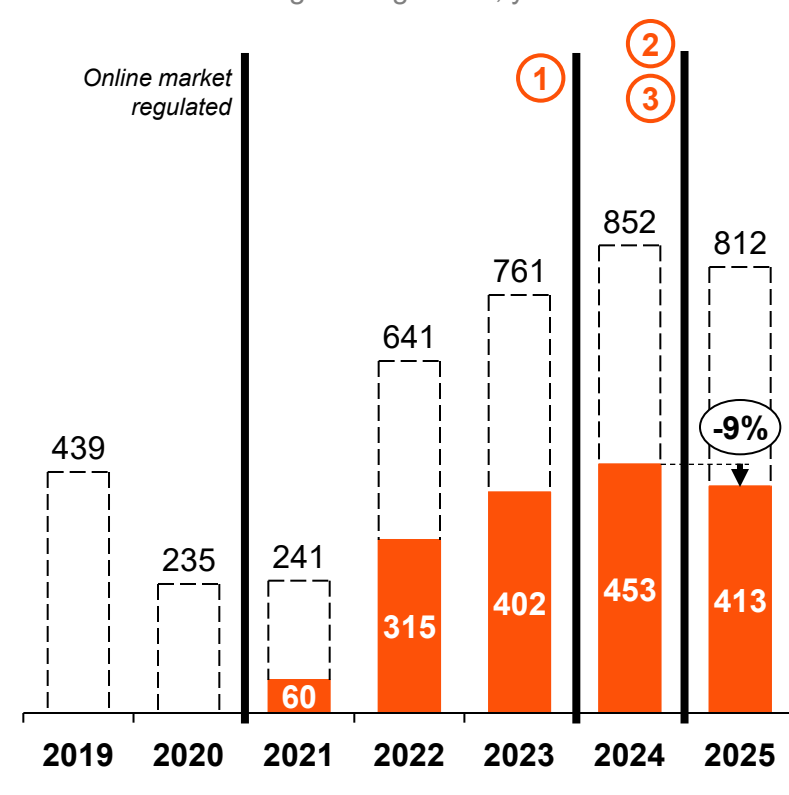
GGR

Calendar year, £bn, onshore



Impact of taxation changes on tax revenue

€m tax revenue from gambling duties, year end 2019-25



□ Land-based ■ Online

Netherlands formally regulated in Jan 2021, and has since introduced several player protection & advertising restrictions across 2023-24, alongside incremental tax rises

- **Growth in tax take from 2021-24** is primarily driven by the formal licensing of online gambling operators in 2021
- Tax revenue in **H1'25** was **17% lower than H1'24**, and is **on-track to decline by 9% in FY25** – this is widely attributed to:

- ① **Jul 2023:** Online providers no longer allowed to conduct untargeted advertising & sign new sponsorship contracts
- ② **Jul-Oct 2024:** Strengthening player protections, including introducing €700/month net deposit limits for 25+
- ③ **Jan 2025:** Tax incrementally increasing from 30.5% in 2024, to 34.2% in 2025 and 37.2% in 2026 with the **intention of increasing government revenue**

August 2025

Dutch Gambling Authority Report



“The tax increase was intended to increase government revenue... Although the tax rate has been increased, tax revenues in 2025 are still estimated to be €40 million (5 percent) lower than in 2024. This is due to new player protection rules, which have caused a sharp decline in the number of player accounts with large losses... The target of collecting an additional €100 million in taxes in 2025 is therefore very unlikely to be achieved.”



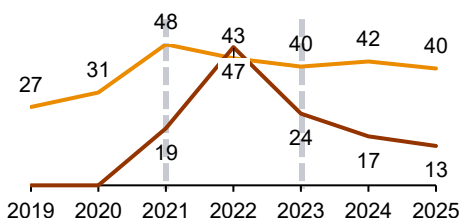
Germany has also seen a 15% decline in tax take since formally launching an online licensing regime with high stakes-based tax & player restrictions

Online Gambling Market Overview

— Betting
— Gaming
Tax / Regulatory Change

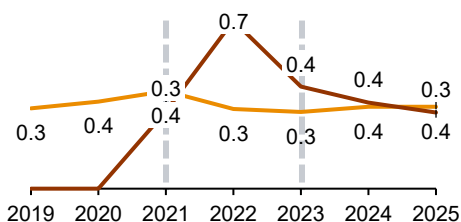
Channelisation

Calendar year, % turnover, onshore



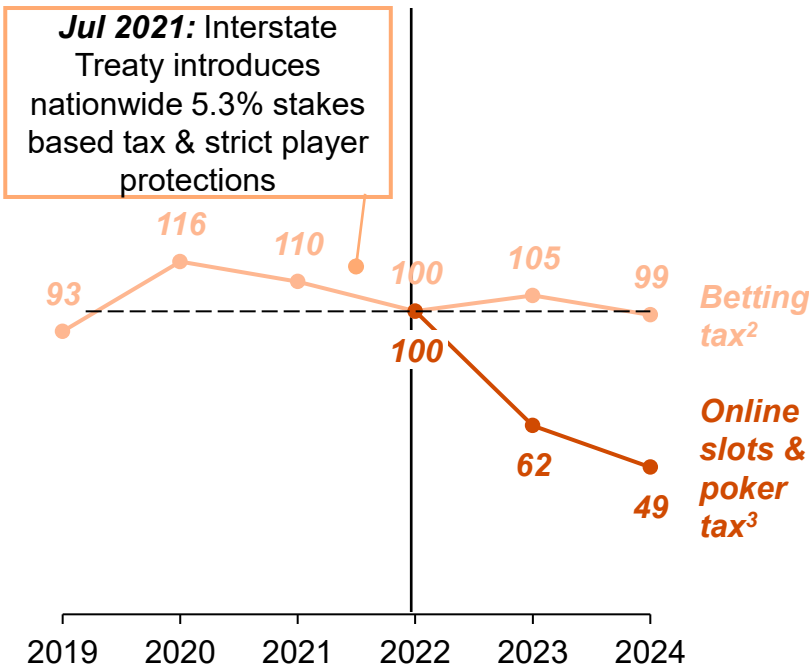
GGR

Calendar year, £bn, onshore



Impact of taxation changes on tax revenue from operators

Betting and gaming tax revenue (ex. Lotteries) indexed to 2019, year end 2019-24¹



Germany introduced a national online regime in 2021 with strict player protections and 5.3% tax on stakes for virtual slot machines and online poker

- Strict player protections were introduced in 2021 including cross-operator €1,000/month deposit limit, €1/spin, 5-second spin interval, OASIS exclusion and LUGAS limit control that impact player offering
- Tax revenue from online slots and poker has declined by >50% since the introduction of the tax in Sept 2021, widely attributed to channelisation issues as player seek better odds from untaxed/unregulated websites
- Tax revenue from betting (incl. sports and racing) has remained relatively more stable, declining by 10% between 2021 to 2024

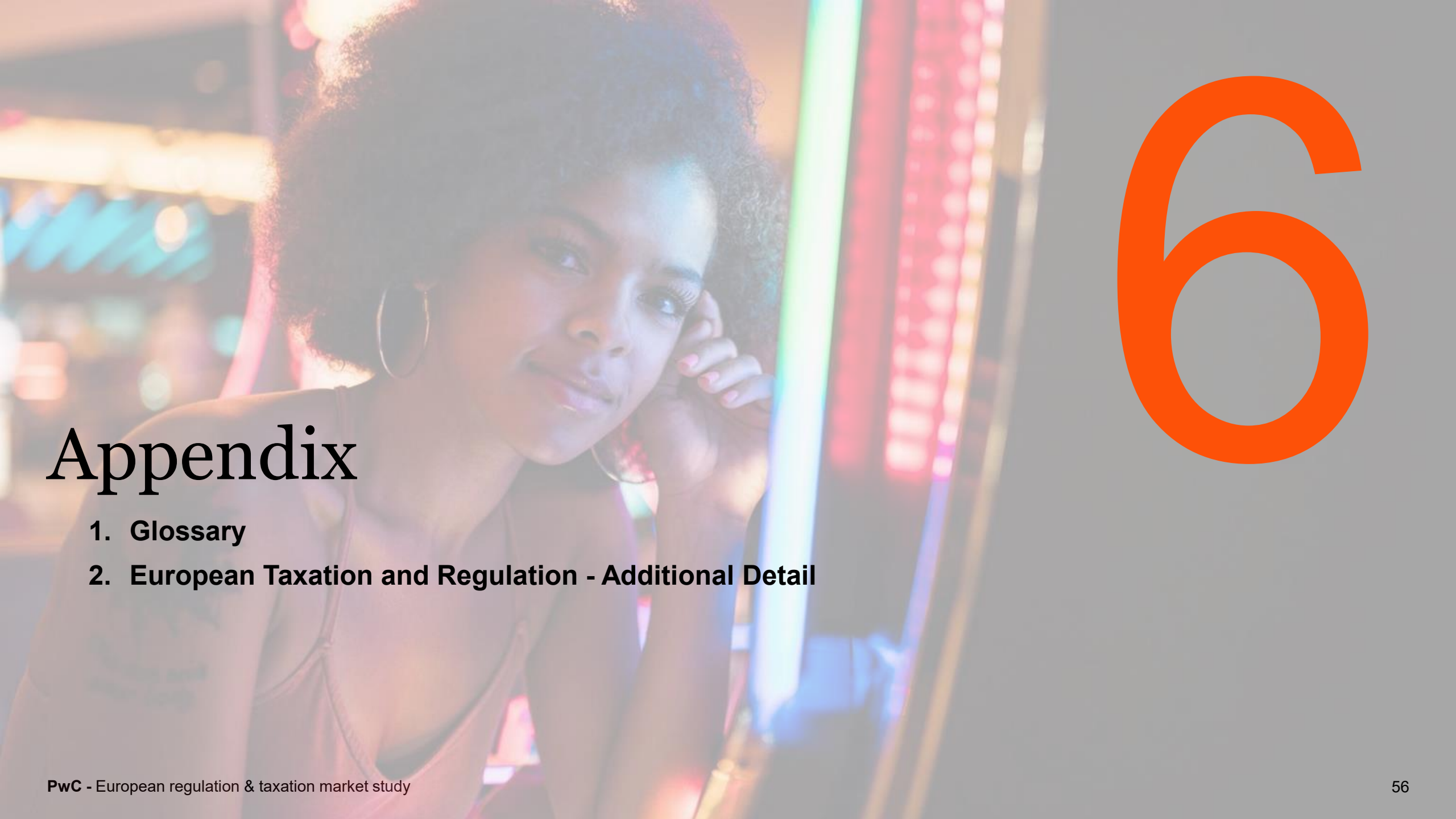
July 2025

German Online Casino Association (DOCV)



"The GGL reports an increase in the market volume for virtual slot games and online poker in the licensed market from €0.4 billion in 2023 to €0.6 billion in 2024. This **reported increase contradicts the declining tax revenues from virtual slot games**. According to the Federal Ministry of Finance, a **20% decline is expected in 2024 compared to 2023**."

Notes: 1) Tax take is indexed to aid comparison between years, 2) Includes land-based and online betting due to reporting methods, 3) Germany introduced a virtual slots & poker tax in July 2021 levied at 5.3%. Tax revenue is shown annually from September to September due to data availability from the German Gambling Authority, e.g. 2022 is Sept 2021 - Sept 2022 tax revenue. Sources: H2GC, GGL (German Gambling Authority), Deutscher Online Casinoverband (DOCV)



Appendix

1. Glossary
2. European Taxation and Regulation - Additional Detail

Glossary

Term	Definition	Term	Definition
Bonuses / free bets	Promotional gambling credit which can be wagered as a cash deposit (subject to conditions)	NR / NGR	Net Revenue / Net Gaming Revenue – defined as the sum of stakes less the sum of all winnings paid to players and all free bets / bonuses
CAGR	Compound annual growth rate	Onshore / offshore licensed	Onshore refers to market activity taking place with operators with licenses for the local jurisdiction, offshore refers to market activity by players in the jurisdiction with operators which do not have licenses for the local jurisdiction
Channelisation	The share of market spend with operators licensed onshore out of the total spend across onshore licensed and offshore grey market unlicensed operators (calculations exclude lottery)	Opex	Operating expenditures
Deposit	Money transferred to / held in a gambling account	P&L	Profit and loss statement - a financial report that provides a summary of a company's revenue, expenses and profit
EBITDA	Earnings before interest, tax, (depreciation and amortisation)	PPT	Percentage points
FY	Financial Year	R-squared	R-squared is a metric that indicates how closely the expected results by a model match the actual data. R-squared takes a value between 0-1 and higher value means the model's estimates fit the real outcomes better
Gaming	Games of skill and chance that includes casino table games, slots, and bingo	Return-to-player (RTP)	The expected percentage of stakes that a specific game / activity will return to the player in the long run
GGR	Gross Gaming Revenue (also known as gross win) – defined as the sum of stakes less the sum of all winnings paid to players	Turnover / stakes	The total (gross) amount of money wagered by customers, including free bets / bonuses
Gross profit	Profit a company makes after deducting the costs associated with making and selling its products	Weighted average tax rate	Average tax rate across products, weighted by GGR
Gross win margin; Gross win %	The percentage of stakes that an operator earns from a gambling activity	YoY	Year on year
Land-based	Used to describe gambling services offered by a physical outlet, e.g. betting shops, casinos		

The report considers regulatory and taxation changes that have taken place since 2019. Current trajectory group based primarily on 2020-24 changes (1 of 3)

Current regulatory trajectory¹:

Tightening

Jurisdiction	Index score ²		Regulatory Index Score Metrics										
	<div><div></div><div>2019 score</div></div>	<div><div></div><div>2019-24 change</div></div> <div>2024 Score</div>	Headline tax rate 2024	Headline tax change 2019-24	Player and product regulation changes			Advertising regulation changes					
					Change	Year	Score Impact	Change	Year	Score Impact			
France ³			52.3% (betting)	+0.9% (betting)	No significant player and production regulation changes during the observed period			Advertising guidelines issued tighten content/ targeting post-Euro 2020 '21 and reissued in '22		2021-22	+9		
	76	11						87	Guidance commercial influencers on gambling promotions		2023	-	
Netherlands ³	49	12	61	30.5%	+1.5% (all)	Increased duty-of-care requirements (e.g. real time monitoring) and €350 deposit limit implemented		2024	+5	Ban on untargeted advertising (TV/radio, online, out-of-home)		2023	+5
Belgium	26	25	51	11%	-	Ban on bonuses, gifts & free bets; minimum age lifted from 18 to 21		2023-24	+10	Phased advertising ban across TV, radio, social media & newspapers		2023	+5
										Phased sports sponsorships restrictions (no front shirt, area limit, branding limits in venues)		2024	+10
Denmark	40	8	48	28%	+8% (all)	Mandatory deposit limits imposed Bonus availability extended to ≥60 days		2020	-	Ban on promotional materials to self-excluded players		2023	-
						Additional KYC/ AML requirements		2021	-				
Lithuania	35	10	45	20%	-	Stricter AML requirements (e.g. stronger ID/ verification duties)		2020	-	Ban on bonus / promotions and marketing constraints		2021	+5
										Phase 1 ad restrictions enforced, tight limits across digital/broadcast/out-of-home		2024-25	+5
Czechia	32	12	44	30% (betting) 35% (gaming)	+7% (gaming)	48-hr “panic button” introduced; redefined online gambling services; operators prohibited from offering risk bonuses; stricter AML/KYC requirements		2024	+5	No significant advertising regulation changes during the observed period			
Sweden	33	9	42	22%	+4% (all)	B2B supplier licences introduced		2023	+5	No significant advertising regulation changes during the observed period			
						Higher AML penalties for breaches enforced		2024	-				
Romania	22	19	41	21%	+5% (all)	Stricter self-exclusion/“undesirable persons” reporting duties		2023	+5	Ban on unsolicited electronic messages & caps outdoor ads area per display		2023-24	+9

Notes: 1) Markets that increased by more than 5 points are Tightening. 2) The total change in regulatory index may not directly match the sum of headline tax changes, player/ product regulation changes and advertising regulations changes as the weighted average gambling tax rate across product verticals is used as opposed to headline tax rate when calculating the regulatory index score. 3) France data 2020-24, Netherlands data 2021-24 | Source: H2GC, VIXIO, Local Regulators, PwC Analysis & Desktop Research

The report considers regulatory and taxation changes that have taken place since 2019. Current trajectory group based primarily on 2020-24 changes (2 of 3)

Current regulatory trajectory ¹ : Stable	Jurisdiction	Index score ²		Headline tax rate 2024	Headline tax change 2019-24	Regulatory Index Score Metrics					
		<div><div></div>2019 score</div> <div><div></div>2019-24 change</div>	2024 Score			Player and product regulation changes			Advertising regulation changes		
						Change	Year	Score Impact	Change	Year	Score Impact
	Italy	<div><div>60</div><div>0</div></div> 60	24% (betting) 47% (horse racing) 25% (gaming)	- ³	Minimum stake reduction from €2 to €1, maximum winnings increase from €10k to €50k, cash-out and draw no bet options for bettors, permitted odds to three decimal places	2022	-	No significant advertising regulation changes during the observed period			
	United Kingdom ⁴	<div><div>31</div><div>9</div></div> 40	15% (sports betting) 25% (horse racing) 21% (gaming)	+6% (gaming)	Responsible gaming measures	2019-20	-	Restrictions on targeted ads at under-18s	2022	-	
					Enhanced HVC restrictions & credit card ban	2020	-				
					Ban on speed up & autoplays; limits to slot spin speed	2021	-				
	Spain ⁵	<div><div>26</div><div>14</div></div> 40	20%	-	£150/month deposit limit phased in	2023+	+5	Permissions for gambling advertising introduced	2020	+9	
					Imposed mandatory risk profiling, time and loss limits, proactive customer-interaction triggers, product/interface safety measures a ‘intensive play’ thresholds	2023	+5	Implemented Royal Decree imposing advertising restrictions related to timings, content and sponsorship limits	2021	+5	
								Loosened aspects of the advertising regulation under Royal Decree from Jan’21	2023-24	-5	
Serbia	<div><div>29</div><div>6</div></div> 35	15%	+10% (gaming)	No significant player and product regulation changes during the observed period			No significant advertising regulation changes during the observed period				
Latvia	<div><div>30</div><div>2</div></div> 32	12%	+2% (all)	Gambling policy adopted inc. harm prevention and KYC enforcement	2021	-	No significant advertising regulation changes during the observed period				
Estonia	<div><div>20</div><div>1</div></div> 21	6%	+1.0% (all)	No significant player and product regulation changes during the observed period			No significant advertising regulation changes during the observed period				

Notes: 1) Markets that changed by less than 5 points are Stable. 2) The total change in regulatory index may not directly match the sum of headline tax changes, player/ product regulation changes and advertising regulations changes as the weighted average gambling tax rate across product verticals is used as opposed to headline tax rate when calculating the regulatory index score. 3) Italy decreased online horse racing betting tax from 47% to 27.5% in 2025, therefore the change is not accounted in the period shown. 4) UK is classed as Stable given the timing of Regulatory Index changes (Remote Gaming Duty increased from 15% to 21% of GGR in April 2019) ; 5) Spain's index score changed by 14 points but is treated as Stable given recent loosening of advertising restrictions | Source: H2GC, VIXIO, Local Regulators, PwC Analysis & Desktop Research

The report considers regulatory and taxation changes that have taken place since 2019. Current trajectory group based primarily on 2020-24 changes (3 of 3)

Current regulatory trajectory¹:

Liberalising

Jurisdiction	Index score ²			Regulatory Index Score Metrics							
	<div><div></div>2024 Score</div> <div><div></div>2019-24 change</div>		2019 Score	Headline tax rate 2024	Headline tax change 2019-24	Player and product regulation changes			Advertising regulation changes		
						Change	Year	Score Impact	Change	Year	Score Impact
Hungary	<div><div>58</div></div>	<div><div>34</div></div>	92	17.5%	-	Liberalisation of the online market across all product verticals, ending de-facto monopoly	2023	-20	Liberalisation of the online market across all product verticals, allowing gambling advertising with minimal restrictions and limits	2023	-14
Greece	<div><div>70</div></div>	<div><div>20</div></div>	90	35%	-	Transitioned to fully regulated model, opening online licence applications under updated framework	2020-21	-15	No significant advertising regulation changes during the observed period		
						Raised online stake/win limits	2022	-5			
Slovakia	<div><div>48</div></div>	<div><div>20</div></div>	68	22%	-	Established an independent national regulatory body, ended the monopoly on online gambling and licensed across all products	2019	-20	No significant advertising regulation changes during the observed period		

Notes: 1) Markets that decreased by more than 5 points are Liberalising. 2) The total change in regulatory index may not directly match the sum of headline tax changes, player/ product regulation changes and advertising regulations changes as the weighted average gambling tax rate across product verticals is used as opposed to headline tax rate when calculating the regulatory index score. | Source: H2GC, VIXIO, Local Regulators, PwC Analysis & Desktop Research

Comparison of data sources: UK Gambling Commission vs. H2GC

Approach to sources

This report refers to calendar year data. UK Gambling Commission annual reports are based on tax year end. When showing UK data, we have used UK Gambling Commission quarterly data to derive calendar year data.

UK Gambling Commission data is only available up to April 2024 and full year quarterly data is only available 2020-2023. Therefore in order to ensure comparability, H2GC turnover and GGR data has been used to compare the UK vs. international markets in certain instances in the report (in particular, UK 2024 performance).

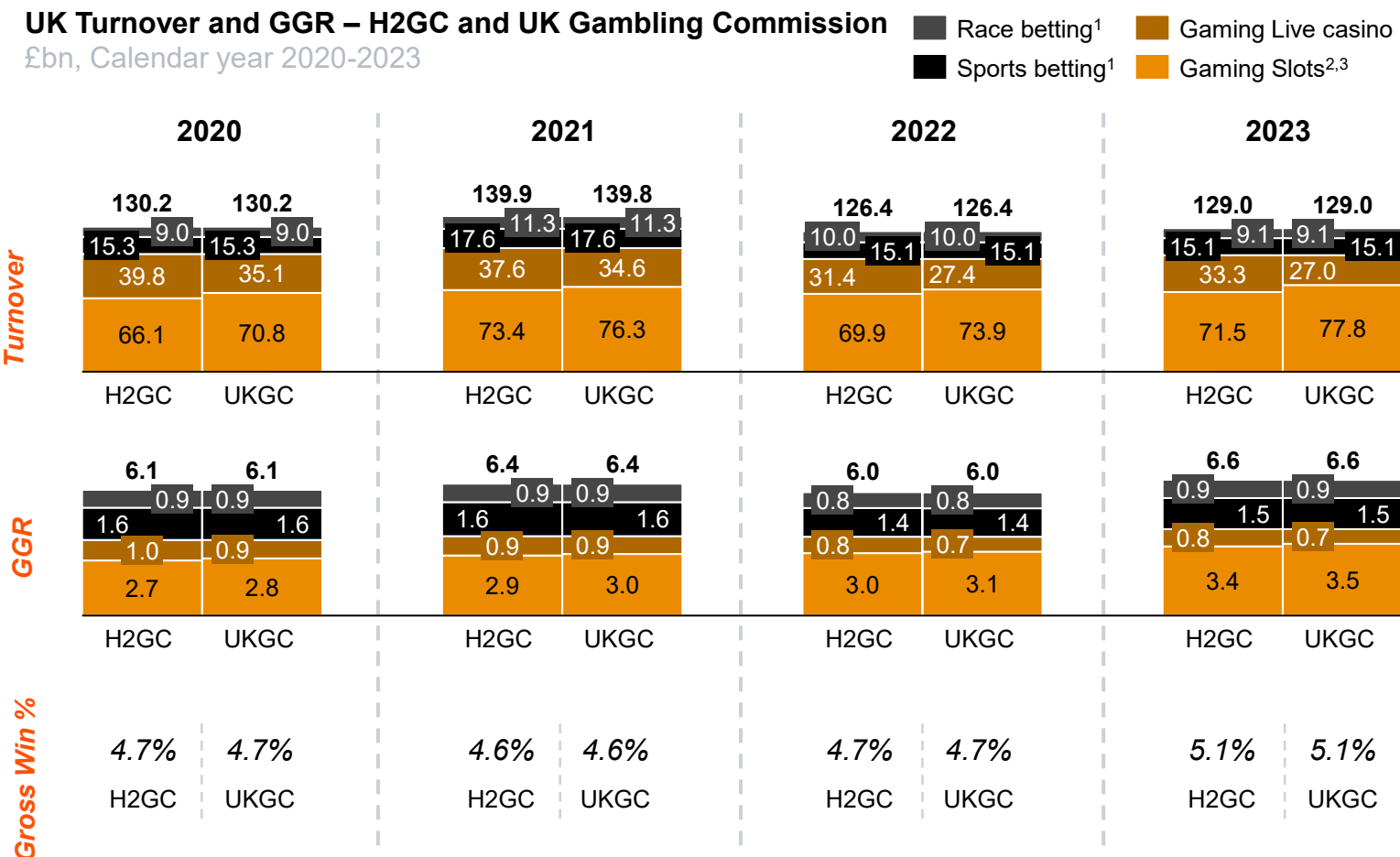
Gross Win % Overview

Gross Win represents the Gross Gaming Revenue (GGR) as a % of Turnover and indicates the proportion of total stakes retained by operators after payouts to players.

Triangulation of sources

To assess the H2GC data, official industry statistics published by the UK Gambling Commission (UKGC) have been used to compare 2020 to 2023 values.

- The comparison considers GGR and Turnover for Online Betting and Online Gaming, by product category



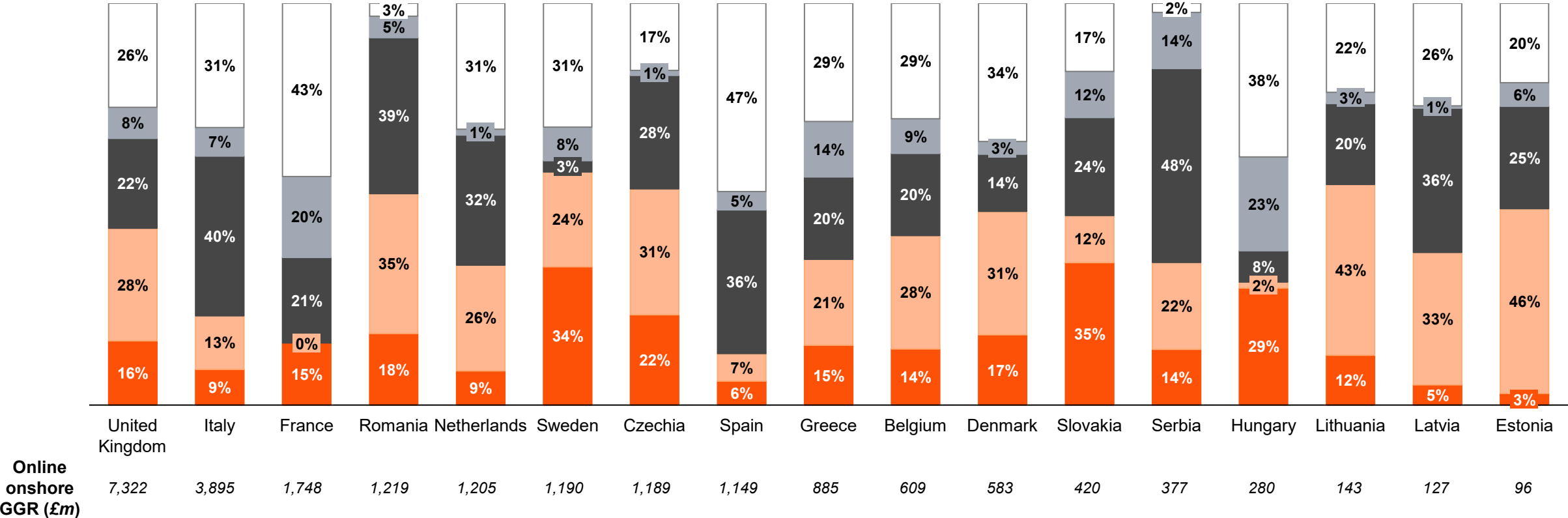
Notes: 1) Race betting includes Dogs and Horses UKGC verticals, Sports betting includes all other betting; 2) Excludes Poker Peer to Peer UKGC vertical; 3) Live Casino includes Blackjack, Card Game, Other, and Roulette UKGC verticals
Sources: UKGC, H2GC
PwC - European regulation & taxation market study

Overview of GGR by product category and channel

GGR by product categories and channels¹
%, online onshore vs. land-based and betting vs. gaming vs. lotteries, Calendar year 2024

Online betting Online gaming Land-based gaming Land-based betting Total lotteries

The Regulatory Index (detailed on p15, 58-60) does not consider cultural factors (e.g. preference for lottery) or size and nature of the land-based market. However, we recognise that there is variation in market composition across the jurisdictions considered within this report which may also explain some of the trends observed in this report

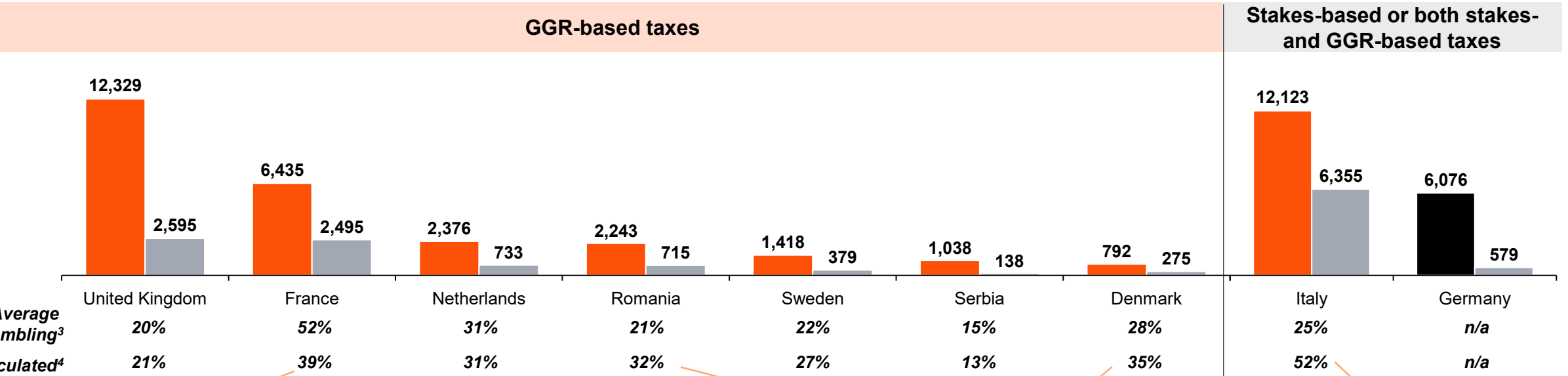


Notes: 1) Includes jurisdictions with GGR-based tax only. Onshore online only. Excludes Poker and Bingo | Sources: H2GC
PwC - European regulation & taxation market study

Overview of GGR vs. Weighted Average Gambling and Calculated Gambling Tax receipts

Total onshore online and land-based gross gambling revenue and gambling tax receipts (ex. lotteries)¹
£m, Calendar year 2024

Betting and Gaming GGR Betting and Gaming Turnover Tax receipts²



Note: Land-based spend is included in the calculated tax rate but not the average gambling tax rate

1. Regulator tax receipt data does not split out lottery. Lottery tax receipt in France is estimated based on GGR and lottery tax rate (76% of GGR) 2. Land-based sports betting (9% of total market GGR) is taxed at lower rate (41.1% of GGR) in France

Land-based gaming is subject to additional authorisation fixed fees per table/machine (€5.3k per machine, €40-70k per table) and a 'vice-tax' (€500 per machine)

Land-based gaming (14% of total market GGR) is taxed at a higher rate (41-45% of GGR) in Denmark

Land-based slots (23% of total market turnover) are taxed at 24% of stakes in Italy, contributing to higher tax receipts vs to other jurisdictions

There are a number of reasons for the discrepancy between the average gambling tax rate used in the report and the calculated tax rate including (i) average gambling tax rate is online only vs. online and land-based for the calculated tax rate, and (ii) average gambling tax rate does not account for allowable deductions, upfront licensing costs, exemptions or VAT

Notes: 1) Includes jurisdictions where the local regulator or government tax authority published tax receipts excluding lotteries, 2) Includes all reported tax receipts (i.e. Online and land-based) across all betting and gaming, excluding lotteries, 3) Average gambling tax (used throughout the report) includes online spend only. It includes the headline tax rates and additional levies across product verticals, weighted by GGR. Further details are set out on p15, 4) Calculated tax rate is based on tax receipts across online and land-based gaming excluding lotteries divided by online onshore and land-based gaming GGR | Sources: Local Regulators, Government Tax Authorities and Ministries of Finance, PwC Analysis & Desktop Research

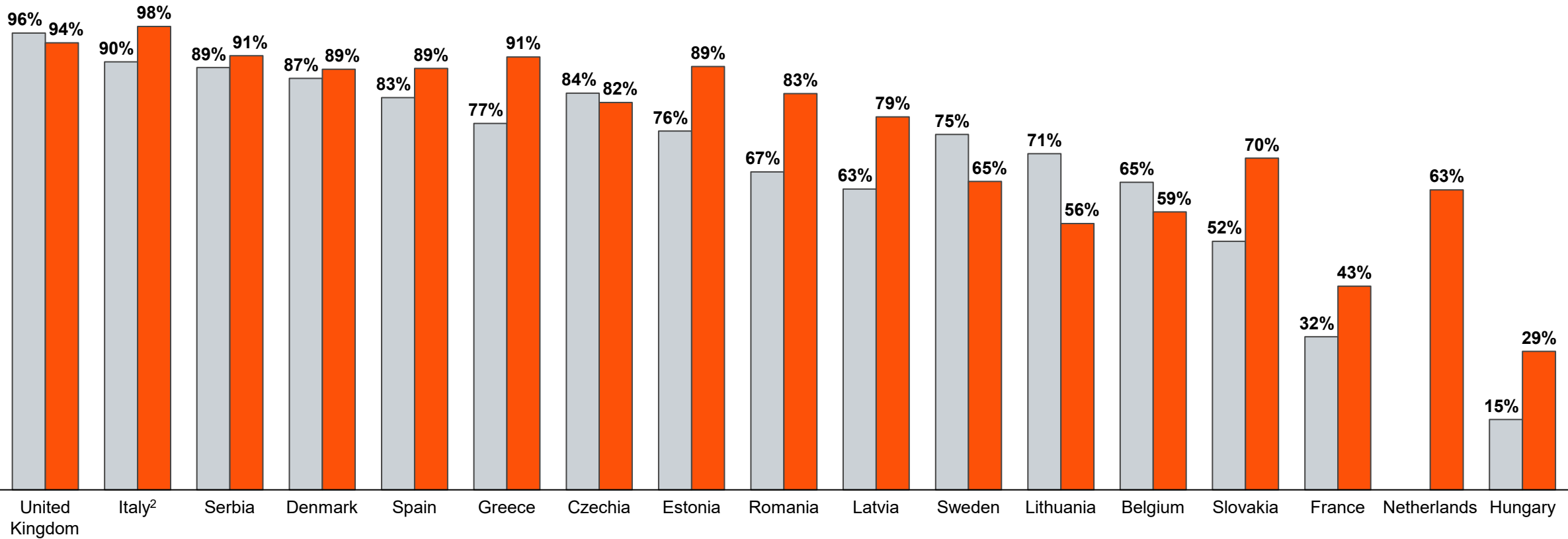
PwC - European regulation & taxation market study

Overview of 2024 turnover channelisation % by jurisdiction

Online betting and gaming turnover channelisation % by jurisdiction¹

% of turnover, Calendar year 2024

2019 2024



Notes: 1) Includes jurisdictions with GGR-based tax only. Onshore online only. Excludes Lotteries, Poker and Bingo; 2) In 2023 gazetta.it estimated Italy's channelisation to be 82% vs. 97% H2GC estimates | Sources: La Gazzetta dello Sport, H2GC
PwC - European regulation & taxation market study

Channelisation – Comparison of data sources (1 of 2)

Channelisation Overview & Methodology

Channelisation Overview

Given the unlicensed nature of the offshore, unlicensed market, estimating channelisation is complex, with various methodologies applied across existing literature

Approaches to Estimation

Studies conducted by regulators and analysts across Europe assess channelisation from a **volume and value perspective in terms of GGR and Turnover**. This report focuses on value-based channelisation in terms of turnover as direct reflection of player spend.

Methodologies used across literature

Past studies draw on a range of data sources and methods, including:

- Gambler surveys
- Web traffic analysis
- Data from gambling software operators
- Industry subscription research providers such as H2GC and VIXIO, which combine market data, regulator data, web traffic analysis, and operator inputs to inform their estimates

Methodologies in UK studies

Frontier Economics (2024):

- Estimates channelisation rates **in terms of turnover** based on a conducted customer survey, operator data and secondary data

UK Government (DCMS) (2023)

- Estimates channelisation **in terms of turnover** through a literature review of previous studies and assumptions

PwC Report for BGC (2021)

- Estimates channelisation rates **in terms of turnover** based on a conducted customer survey, operator data and secondary data

PwC Report for BGC (2019)

- Estimates channelisation rates **in terms of turnover** based on a conducted customer survey, operator data and secondary data

Methodologies in other European jurisdictions

The Dutch Gambling Authority (2024):

- Estimates channelisation rates **in terms of GGR** using search volume from Google Ads Keyword planner, licensed operator data, and data on unlicensed providers

Swedish Gambling Authority (2025):

- Estimates channelisation in terms of **turnover** using search volume from Google Ads Keyword planner, licensed operator data, and data on unlicensed providers

Danish Gambling Authority (2024):

- Directly cites H2GC Estimates

Copenhagen Economics - Sweden (2020)

- Estimates channelisation **in terms of turnover** using a consumer survey, interviews with licensed providers, market data analysis and substitutability between licensed and unlicensed providers

PwC for the French Gambling Authority (ANJ) (2023)

- Estimates channelisation **in terms of turnover** using a consumer survey, interviews with licensed providers, market data analysis and substitutability between licensed and unlicensed providers

Key: Local Regulator / Gambling Authority

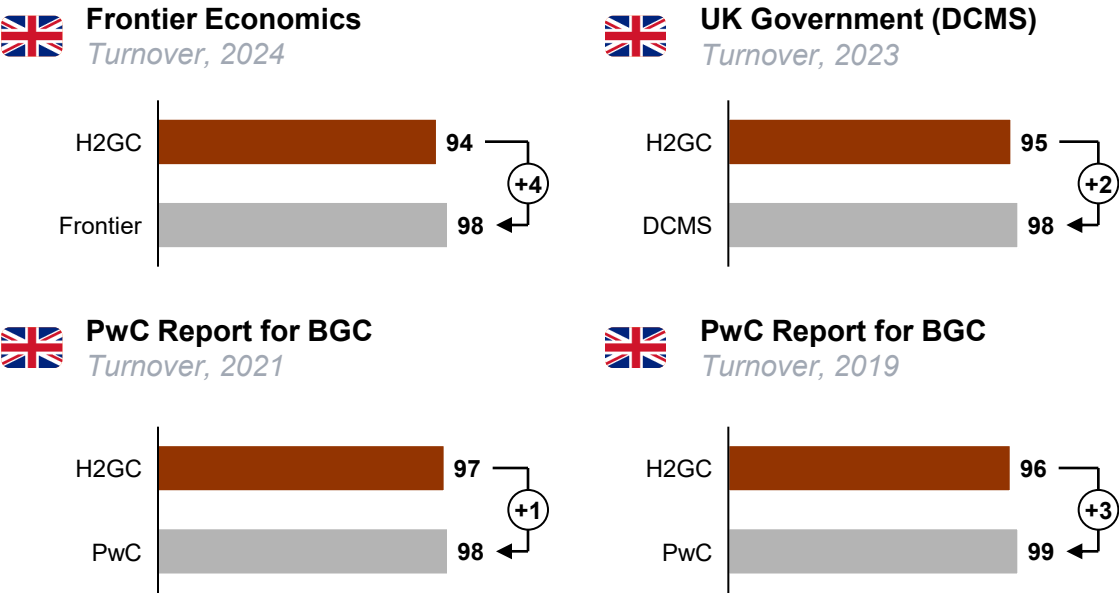
Sources: Frontier Economics: “*The size and economic costs of black market gambling in Great Britain*” (2024), Kansspelautoriteit (The Dutch Gambling Authority): “*Effects on the Online Gambling Market: New Rules for player protection 2024*” (2025), Spelinspektionen (Swedish Gambling Authority): “*Channelling rate in the Swedish gambling market in 2024*” (2025), Spillemyndigheden (Danish Gambling Authority): “*Report on Illegal Gambling 2024*” (2025), Copenhagen Economics: “*The degree of channelization on the Swedish online gambling market*” (2020), PwC Reports for BGC: “*Review of unlicensed online gambling in the UK*” (2021), “*A review of ‘black market’ online gambling in the UK*” (2019), DCMS: “*High Stakes: Gambling Reform for the Digital Age*” (2023), PwC report for ANJ: “*Study on the illegal offer of online gambling accessible in France*” (2023), H2GC

PwC - European regulation & taxation market study

Channelisation – Comparison of data sources (2 of 2)

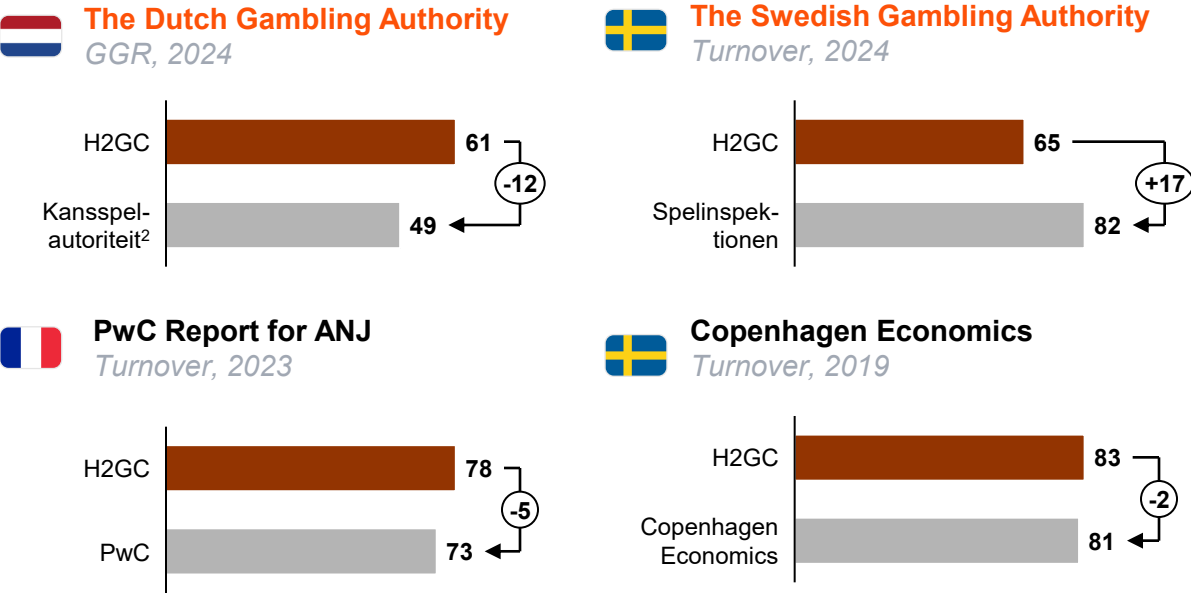
H2GC estimates compared to relevant studies in the UK

Online Channelisation % - H2GC vs. UK Market Studies



H2GC estimates compared to relevant studies in wider Europe¹

Online Channelisation % - H2GC vs. wider European Market Studies



Key: Local Regulator / Gambling Authority

Whilst there are differences between H2GC and regulator and analyst report estimates, this report is based on H2GC values to ensure consistency and greater comparability across jurisdictions

Notes: 1) Italy comparison to gazzetta.it article not included as full report not available, estimate ~82% channelisation vs. ~97% for H2 2) Q4 2024 estimates | Sources: La Gazzetta dello Sport: “A mind-blowing business: illegal gambling in Italy generates 25 billion euros.” (2023), Frontier Economics: “The size and economic costs of black market gambling in Great Britain” (2024), Kansspelautoriteit (The Dutch Gambling Authority): “Effects on the Online Gambling Market: New Rules for player protection 2024” (2025), Spelinspektionen (Swedish Gambling Authority): “Channelling rate in the Swedish gambling market in 2024” (2025), Spillemyndigheden (Danish Gambling Authority): “Report on Illegal Gambling 2024” (2025), Copenhagen Economics: “The degree of channelization on the Swedish online gambling market” (2020), PwC Reports for BGC: “Review of unlicensed online gambling in the UK” (2021), “A review of ‘black market’ online gambling in the UK” (2019), DCMS: “High Stakes: Gambling Reform for the Digital Age” (2023), PwC report for ANJ: “Study on the illegal offer of online gambling accessible in France” (2023), H2GC

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