

FUTURE DIFFERENCES IN THE BURDEN THROUGH TAXES AND CHARGES ON LAND-BASED AND ONLINE CASINO GAMES AND SLOTS USING THE EXAMPLE OF THE FEDERAL STATE OF BAVARIA

Background paper/ Brief analysis on behalf of the
European Gaming and Betting Association (EGBA)

Last updated: 20 July 2021

Goldmedia GmbH Strategy Consulting
Prof. Dr Klaus Goldhammer, Dr Andre Wiegand

Oranienburger Str. 27 | 10117 Berlin | Germany
Tel +49 30 2462660

Andre.Wiegand@Goldmedia.de

Contents

1	Mandate and approach.....	3
1.1	Mandate and background.....	3
1.2	Approach.....	4
2	Bases of calculation.....	6
2.1	Burden through taxes and charges of land-based and online casino games and slots	6
2.1.1	Tax burden for online offers.....	6
2.1.2	Tax burden for land-based slot machines.....	7
2.1.3	Burden through taxes and charges for casinos.....	9
2.2	Return-to-player rates of online and land-based forms of gambling ...	11
2.2.1	Return-to-player for virtual slots.....	11
2.2.2	Return-to-player rates of land-based slot machines.....	12
2.2.3	Return-to-player rates of gambling in casinos.....	14
2.3	Conversion of the 5 per cent tax on the stakes to a theoretical revenue tax for land-based providers	14
3	Arithmetical application of a 5 per cent tax on the stakes to land-based casino and slot machine games in Bavaria.....	16
3.1	Application of the tax on the stakes to cash receipts from slot machines in gambling arcades and restaurants in Bavaria.....	16
3.2	Application of the tax on the stakes to gross gaming revenues of the state-run casinos in Bavaria.....	18
3.3	Summary of the calculation.....	19
4	Examination of the de minimis threshold	21
5	Outlook on market development after the pandemic	26
5.1	Outlook on turnover development of commercial slot machine operators	26
5.2	Outlook on turnover development of state-run casinos	28

1 Mandate and approach

1.1 Mandate and background

Goldmedia Strategy Consulting was commissioned by the European Gaming and Betting Association (EGBA) to conduct a brief analysis to assess the differences in the future burden through taxes and charges in Germany for virtual slots with the possibility of winning prizes¹ and online poker, compared to land-based slot machines (money slot devices/ gambling machines with the possibility of winning prizes)² in gambling arcades and restaurants as well as games of chance in casinos.

The background to the analysis is the EGBA's objective to quantify on this basis an annual state aid amount to be used in the context of a potential state aid complaint.

According to the decision of 20 September 2011 on the Danish tax advantage for online casino games (C 35/10; ex N 302/10), the Commission considers "that, as far as the taxation of gambling activities is concerned, online gambling emerges as another distribution channel of a similar type of gaming activities."

This means that the offers for virtual slots and online poker, which are regulated under the Inter-State Treaty on Gambling (GlüStV) 2021³ and which are eligible for licensing in Germany from July 2021 onwards, constitute a common market with land-based slot machines and casino games.

Connected to the Inter-State Treaty on Gambling is the Horserace Betting and Lotteries Act, which defines the taxation of all forms of gambling eligible for licensing in Germany.

The Revised Horserace Betting and Lotteries Act (RennwLottÄG) now planned in Germany would result in a strongly diverging burden through taxes and charges for virtual slots and online poker compared to land-based slot machines and casino games, i.e. for the individual distribution channels of gambling activities that the EU Commission considers to be similar.

A tax-law measure gives rise to an advantage that constitutes state aid under Article 107 (1) TFEU to the extent that companies are selectively spared financial burdens resulting from the normal (system-logical) application of the general taxation system, i.e. in the amount of the difference resulting from the deviation from the general taxation framework.

¹ Social gaming offers providing comparable or identical virtual slots on a pure points basis without costs and associated losses and winnings for the players that are financed by online advertising are to be distinguished from this.

² These must be distinguished in particular from entertainment machines and sports gaming devices without the possibility of winning prizes, such as pinball machines or dart machines.

³ Draft of a Fifth Act on the Revision of the Gambling Sector of 02 November 2020 available, for instance, at: https://www.buergerschaft-hh.de/parldok/dokument/73270/entwurf_eines_fuenften_gesetzes_zur_neuregelung_des_gluecksspielwesens.pdf

An essential element of the tax reference system is the tax assessment basis. With regards to taxation the German legislator currently differs between forms of gambling. All forms currently covered by the current Horserace Betting and Lotteries Act (lottery, horseracing, sports betting) offline as well as online are taxed on the basis of stakes.

Slot machines in gambling halls and restaurants as well as casino games are subject to the standard tax on turnover (meaning the gross gaming revenues/cash receipts). In addition to that the regional states and municipalities levy different amounts of entertainment taxes and casino charges.

International providers of online casinos, slot and poker platforms are also subject to the tax on turnover for gaming revenues generated with players from Germany.

Of competitive relevance (with regard to the interchangeability of products) are **the product-related taxes and charges**. According to Goldmedia, this includes, as a minimum, value added tax (VAT).

If the term "product-related taxes" is interpreted to mean "gambling-related" taxes, then, in a **broad interpretation of the term "product-related taxes"**, entertainment taxes as well as casino charges could also be defined as product-related taxes. It should be noted in this context, however, that entertainment taxes and casino charges, unlike VAT or the planned tax on the stakes under the RennwLottÄG, are not levied as federal taxes, but are set individually by each federal state or the relevant municipality.

Other business taxes such as personal and corporate income taxes as well as trade taxes are not classified as product- or gambling-related taxes and are not included in the analysis. (Online providers based in other EU countries must also pay corporate income tax in their country of domicile.)

1.2 Approach

The subject of this analysis is the calculation of the tax burden which would have to be borne

- a) by commercial slot machine operators on revenues from slot machines, and
- b) by state-run or state-licensed casinos for gambling revenues,

were they made subject to the same taxation based on the stakes that is currently planned for virtual slots and online poker.

This calculated tax burden is then compared with the taxes and charges currently payable by commercial slot machine operators on revenues from slot machines and by state-run or state-licensed casinos on gambling revenues.

In the context of this study, the difference between a theoretical taxation based on the stakes for stationary slot machines (money slot devices) in gambling

arcades and restaurants as well as gambling in casinos, and the VAT currently paid by the operators is referred to as "**tax advantage 1**".

The difference between a theoretical taxation based on the stakes and all applicable gambling-related taxes (VAT and entertainment tax or casino charges respectively) is referred to as "**tax advantage 2**".

For the comparison of the taxes and charges paid on the one hand, and the tax burden of a taxation based on the stakes on the other hand, an **exemplary analysis** was carried out for **the Federal State of Bavaria**, as the necessary market figures could be determined for this federal state on the basis of online research.

In addition, an estimation of the average tax advantage per year for the individual companies at the level of the Federal State of Bavaria was carried out for the market of gambling arcade operators and slot machine operators as well as for the market of casinos. The aim of this estimation is to show that the tax advantage on average exceeds a threshold of 200 thousand EUR per company within three years (approx. 67 thousand EUR per year). This means that, based on the EU Commission's De Minimis Regulation, a basic prerequisite is met for the assumption that a violation of the prohibition of state aid pursuant to Article 107 (1) of the Treaty on the Functioning of the European Union may exist.

Revenues, taxes and charges were determined on the basis of available data from the 2018 and 2019 periods. In 2020 and 2021, the land-based gambling market has seen revenue declines in the wake of the Corona pandemic, similar to the entire retail and hospitality sectors.

Therefore, this study also provides an outlook with an assessment of the market development after the end of the pandemic, in order to be able to assess the extent to which the data from 2018 and 2019 can be used as a guideline for the coming years.

2 Bases of calculation

2.1 Burden through taxes and charges of land-based and online casino games and slots

2.1.1 Tax burden for online offers

Currently, providers of virtual slot and online casino games are liable to pay VAT in Germany on revenue generated with players resident in Germany⁴.

The RennwLottÄG now provides for the introduction of a tax in the amount of 5.3 per cent on the stakes for **virtual slots** (sections 37, 38 RennwLottÄG) and for **online poker** (sections 47, 48 RennwLottÄG).

Since the stake invested by the player already includes the gambling tax, a net amount of the total stake must be calculated. This net amount represents the basis for tax application.

For virtual slots and online poker, this leads to the following arithmetical calculation: The net amount of a 1 Euro stake equals 95 cents (1/1.053). The 5.3 per cent tax on stakes applied to 95 cents results in a tax amount of 5.03 cents. Compared to the 1 Euro paid in, this leads to an effective taxation of 5.03 per cent. To simplify the following calculation, an effective tax on the stakes of 5 per cent is assumed.

The legislator assumes an average, long-term payout rate (return-to-player rate) for virtual slots of 96 per cent.⁵ This means that in the long run, a player loses approximately 4 per cent of the stakes.

The operators of gaming websites offering virtual slots with the possibility of winning prizes currently in many cases do not have any influence on the return-to-player rates of the games. The game modules are developed by the software providers with pre-defined return-to-player rates and are offered uniformly worldwide. The average return-to-player rates per gaming website result from the respective combination of games offered there. These return-to-player rates are displayed and marketed to players. Many providers even offer return-to-player rates of 98 per cent.⁶ Players also use these return-to-player rates as a basis for their usage decisions. Future return-to-player rates that are

⁴ Although the VAT System Directive provides for a general tax exemption for games of chance, it gives the Member States a wide scope of discretion for implementation. In section 4 no. 9 letter b of the Value Added Tax Act (UStG), the German legislator has implemented this tax exemption only insofar as the relevant transactions fall within the scope of application of the Horserace Betting and Lotteries Act. Gambling services provided electronically within the meaning of section 3a (5) 2 no. 3 UStG from abroad to players resident in Germany are therefore also subject to VAT.

⁵ Cf. Report of the Conference of Finance Ministers of the Federal States (FMK) on the question of the necessity of tax-law adjustments as a result of the new regulation of the gambling sector of 20 November 2020 to the Conference of the Heads of Government of the Federal States (MPK), p. 11

⁶ Cf. e.g. <https://www.casinoonline.de/echtgeld.php>

significantly below the above return-to-player rates (due to the tax on the stakes) may lead to significant player losses on the respective gaming websites, according to a recent Goldmedia survey.⁷

If the average return-to-player rate of 96 per cent were to remain unchanged, the planned tax on the stakes of effectively 5 per cent would lead to a taxation of the gross gaming revenue (the gross profit of the operators of a gaming website) of approximately 125 per cent (5 cents corresponds to 125 per cent of 4 cents).

No tax on the stakes is planned to be introduced for land-based casinos and for slot machines installed in land-based gambling arcades and restaurants.

2.1.2 Tax burden for land-based slot machines

Slot machines with the possibility of winning prizes installed in land-based gambling arcades and restaurants are subject nationwide to 19 per cent VAT on the so-called "cash receipts"⁸, less the VAT amount already contained therein and passed on to the players.⁹ This corresponds to an effective tax on turnover of 15.97 per cent (see calculation of the tax on the stakes in chapter 2.1.1).

However, it must be taken into account that the land-based providers can offset the input taxes for the operating costs of a gambling arcade or restaurant (leasing costs of the devices, maintenance costs, inspection costs, utility costs, rent ...) according to the turnover distribution key (turnover from gambling devices vs. turnover from entertainment devices and restaurant services). According to the annual reports of the gambling supervisory authorities of the federal states for 2018 and 2019, the VAT burden of the land-based providers was reduced through this to 8.1 per cent.¹⁰ In Bavaria, the effective VAT burden according to the VAT advance return for the industry class no. 92.00.1 comprising of gambling arcades and operation of slot machines (based on NACE class 92.00), was

⁷ For details, see the Goldmedia study "Nutzung von Online-Casino und Online-Poker in Duldungs- und Regulierungsphase" (Use of online casino and online poker during the phase of toleration and regulation), April 2021, available at: <https://www.goldmedia.com/produkt/study/nutzung-von-online-casino-und-online-poker-in-duldungs-und-regulierungsphase/>

⁸ In the case of slot machines, a distinction must be made between the so-called "money bin" in which a player can deposit up to 10 euros in accordance with section 13 sentence 7 of the Ordinance on Gaming Devices (SpielV), the "bank" of the machine where the player can upload stakes of up to 2.30 per game for the individual games in accordance with section 13 sentence 3 SpielV, and the "cash box" in which the player's losses are booked as the operator's profit.

"Cash receipts" is the difference between the amount of the cash content at the beginning and at the end of the month (cash deposited minus cash paid out plus operator's withdrawals minus operator's device top-ups). The annual sum of all monthly cash receipts of all slot machines ("gross cash amount") forms the tax assessment basis.

⁹ Cf. ECJ judgment of 24 October 2013 C-440/12, UR 2013, 866, para. 52 and 53 available at: https://dejure.org/dienste/vernetzung/rechtsprechung?Text=UR_2013_866#162036963644b63f0dee

¹⁰ Annual gambling reports of the federal states for 2018 and 2019 available at: https://www.im.nrw/system/files/media/document/file/gs_jahresreport2019.pdf https://www.im.nrw/system/files/media/document/file/gs_jahresreport2018.pdf

9.4 per cent in 2018.¹¹ This forms the basis for the following calculation of the VAT burden on the slot machines of commercial slot machine operators.

Online providers not based in Germany do not have the possibility of input tax deduction in Germany, as they, even though they are currently assessed for tax purposes in Germany, do not in general have national subsidiaries here that offset pro rata expenses for gambling operations in Germany or costs for advertising measures in Germany.

When taking into account the existing product-related charges of commercial slot machine operators, in a broad interpretation, the entertainment taxes levied in all federal states apart from Bavaria may have to be set off in addition to VAT. Entertainment tax may be levied by the municipalities based on the municipal tax laws of the federal states¹². Around 95 per cent of the entertainment tax is generated through the so-called "slot machine tax" (*Spielgerätsteuer*) of 10 to 20 per cent on the cash receipts of slot machines and entertainment gaming devices in amusement arcades and restaurants.¹³ Other entertainment taxes are levied on prostitution and, in some municipalities, also on tickets for dance events, clubs, concerts and cinemas (ticket tax). The municipalities are free to decide whether to levy entertainment taxes and if so, at what rate. This leads to strongly varying annual tax revenues for the various federal states, namely between 4 and 26 euro per capita, as shown in the table below:

Tab. 1 Overview entertainment tax revenues in the federal states 2018

Federal State	Entertainment tax in EUR million	Entertainment tax per capita in EUR
Baden-Württemberg	292	26
Berlin	43	12
Brandenburg	8	3
Bremen	20	29
Hamburg	25	14
Hesse	95	15
Mecklenburg-Western Pomerania	9	6
Lower Saxony	127	16
North Rhine-Westphalia	283	16
Rhineland-Palatinate	79	19
Saarland	17	17
Saxony	16	4
Saxony-Anhalt	12	5

¹¹ Cf. Bavarian State Office for Statistics: "Umsatz und ihre Besteuerung (Umsatzsteuer-Voranmeldungen) in Bayern im Jahr 2018" (sales and sales taxation (VAT advance returns) in Bavaria in 2018), economic sector No. 92.00.1 (gambling arcades and operation of slot machines), available at: https://www.statistik.bayern.de/statistik/haushalte_steuern/steuern/index.html

¹² In Berlin, Hamburg, Bremen and Saarland, entertainment tax is levied by the respective federal state.

¹³ Cf. <https://kommunalwiki.boell.de/index.php/Vergnügungsteuer#Kartensteuer>

Schleswig-Holstein	35	12
Thuringia	11	5
Total/ average 15 federal states	1,072	13

Source: Goldmedia analysis based on information from the Federal Statistical Office and the Gambling Research Centre, University of Hohenheim (2020): "Staatseinnahmen durch Glücksspiel" (state revenue from gambling) available at: https://gluecksspiel.uni-hohenheim.de/markt#jfmulticontent_c428675-1

In the following calculation for Bavaria, entertainment taxes are not taken into account, as Bavaria has not enacted a corresponding legal basis, so that the municipalities are not permitted to levy entertainment taxes.

2.1.3 Burden through taxes and charges for casinos

Due to the licensing requirement in Germany for gambling offers stipulated in section 284 of the Criminal Code (StGB), the operation of casino games, i.e. table games such as roulette or blackjack, is only possible subject to the provisions of the federal states' casino laws, i.e. in state-run enterprises or on the basis of a licence issued by the respective federal state.

Casinos transfer a large part of their revenues to the state through the casino charges. Similar to lottery revenues, casino revenues accrue to the federal states' budget.

The tax assessment basis is the gross gaming revenue of all forms of gambling operated in the casinos. In addition, many federal states charge special levies or concession fees and tronc levies (levies on tips). The following table illustrates the significant variation in the tax burden for casinos in the individual federal states. On average, about 50 percent of the gross gaming revenues from the state-run/state-licensed casinos are transferred to the state budgets (cf. chapter 4.3).

Tab. 2 Overview of schemes of charges for casinos by federal state

Federal State	Casino charge	Additional charge	Charge on profit
Baden-Württemberg	30 - 35 %	15%	95 % of the annual profit
Bavaria	25 - 35 %	-	-
Berlin	30 - 35 %	10 - 15 %	85- 91 % of the annual profit
Brandenburg	25 - 60 %	-	-
Bremen	20%	20%	
Hamburg	70%	20%	
Hesse	50 - 60 %	20 - 30 %	Payments according to agreements
Mecklenburg-Western Pomerania	25 - 80 %	-	50 % of the annual profit
Lower Saxony	50 %	10 - 25 %	30 % of the annual profit
North Rhine-Westphalia	30 - 40 %	-	75 % of the annual surplus, provided that the remaining 25 % of the surplus exceeds 7 % of the total of the company's capital, reserves and risk fund
Rhineland-Palatinate	40 - 60 %	20 - 40 %	-
Saarland	27 - 37 %	12 %	50 - 80 % of the annual profit
Saxony	35 - 55 %	-	-
Saxony-Anhalt	25 - 50 %	-	40 % of the annual profit
Schleswig-Holstein	30 - 40 %	10 - 15 %	-
Thuringia	25 - 60 %	-	60 - 90 % of the annual profit

Source: <https://www.gamblejoe.com/news/verwendung-und-hoehe-spielbankabgaben-deutschland/>

Since the amendment of the Value Added Tax Act (UStG) in 2006, state-run and state-licensed casinos have also been liable to pay VAT on their revenue. As, up to that time, VAT was considered to have been settled with payment of the casino charge, the rule since 2006 has been that any VAT payable is being set off against the casino charge (without deduction of input tax) in order to avoid double taxation. This means that the casinos pay the calculated casino charge less the actual and final VAT to be paid (i.e. less input tax) directly to the relevant federal state. This is regulated in the casino laws of the individual federal states.¹⁴

¹⁴ Cf. e.g. <https://ltn.niedersachsen.de/steuer/informationen-zu-den-oeffentlich-zugelassenen-spielbanken-122306.html>

2.2 Return-to-player rates of online and land-based forms of gambling

2.2.1 Return-to-player for virtual slots

This calculation is based on the long-term return-to-player rates of the gambling offers in the land-based market. Especially in the area of slot machines, these differ from the return-to-player rates of virtual slots.

In the case of virtual slots, the return-to-player rates result from the design of the gaming software via the number of reels, symbols and possible paylines and are pre-determined by the software providers. They are maintained proportionally even as the player's stakes per game increase by increasing the paylines used. According to section 22a (7) of the Revised Inter-State Treaty on Gambling (GlüStV), the maximum stakes per game for virtual slots in Germany is set at 1 euro.¹⁵

Many games require minimum stakes of 10 cents when using one payline. Many games have 10 paylines. A payline stretches in a certain pattern across all the reels shown. When identical symbols appear on the payline, the player wins and the prize is paid out.

Individual games may even have 20 paylines. In these cases, the stakes per payline are reduced to 5 cents.

Fig. 1: Example: Paylines in the slot game Book of Ra (Novoline)



Source: onlinecasinofuchs.de

¹⁵ Draft of a Fifth Act on the Revision of the Gambling Sector of 02 November 2020 available, for instance, at: https://www.buergerschaft-hh.de/parldok/dokument/73270/entwurf_eines_fuenften_gesetzes_zur_neuregelung_des_gluecksspielwesens.pdf

2.2.2 Return-to-player rates of land-based slot machines

In the case of land-based slot machines in gambling arcades and in restaurants, the long-term cash receipts per device are specified in the Gambling Ordinance (SpielV) with a fixed amount. Pursuant to section 12 (2) 1 SpielV, slot machines must pay out winnings in such an amount that, in the long run, no amount higher than 20 euros per hour remains as cash content.

At the same time, according to section 13 sentences 2 and 3, the minimum playing time per game (e.g. spinning the video reel) is five seconds and the stakes must not exceed 0.20 euro for a five-second game. The stakes may be increased if the playing time is increased at the same time. The upper limit is 75 seconds, according to section 13 sentence 3. The stakes may increase by a maximum of 0.03 euros per full second. With a playing time of 75 seconds, this results in calculated maximum stakes of 2.30 euro. Many slot machines offer the use of up to ten paylines with minimum stakes of 20 cents per payline.¹⁶

The regulation in the SpielV entails that with the given possibilities of increasing the stakes over time and using many paylines with longer playing time (spinning time of the reels), the winning percentages decrease from 86 to 82 per cent. The long-term return-to-player rates of individual players therefore depend on their gambling behaviour. If they wager rather small amounts and only use individual paylines, the long-term return-to-player rate is higher. The following table shows for the example of a slot machine with minimum stakes of 20 cents and 10 paylines which return-to-player rates would be achieved if a certain number of paylines were used permanently.

Tab. 3 Arithmetical return-to-player rates of slot machines according to the SpielV 2019

Paylines	1	2	3	4	5	6	7	8	9	10
Playing time in seconds	5	12	19	25	32	39	45	52	59	65
Stakes in EUR	0.2	0.41	0.62	0.8	1.01	1.22	1.4	1.61	1.82	2
Stakes in EUR rounded off	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2
Long-term loss rate per hour in EUR	20	20	20	20	20	20	20	20	20	20
Stakes per hour in EUR	144.00	123.00	117.47	115.20	113.63	112.62	112.00	111.46	111.05	110.77
Return-to-player rate	86.11	83.74	82.97	82.64	82.40	82.24	82.14	82.06	81.99	81.94

Source: Goldmedia analysis based on the provisions of the SpielV 2019

This is the difference to online games where, according to the new GlüStV, the minimum duration per game of 5 seconds is prescribed regardless of the amount of the stakes. Here, the long-term return-to-player rate remains the

¹⁶ <http://www.spielothek-online.com/10-gewinnlinien/>

same, regardless of the wagered amount per game, because the chances of winning increase proportionally in each case.

Further differences between land-based slot machines and virtual slots lie in various additional game options such as risk games (e.g. a card game with a bet on red or black or a risk ladder), with which current winnings can be further increased or lost again.

In addition, slot machine manufacturers offer different gaming system packages for gambling arcades which are "gambling-friendly" as well as "balanced" or "cash-oriented" gaming system packages.¹⁷ All gaming systems in all categories must comply with the specifications of the SpielV, in particular with regard to maximum winnings and losses per hour¹⁸, and are tested and approved (in conjunction with the consoles) by the responsible department of the Physikalisch-Technische Bundesanstalt (PTB).¹⁹

Nevertheless, the games programmed for the different gaming environments behave differently within the one-hour period: In the gaming systems classified as "gambling-friendly", winnings occur less frequently, but with higher return-to-player rates. The minimum stakes per game may also be higher. They are designed for gambling arcades where players stay longer and also accept longer losing streaks for a higher profit that may then occur. Cash-optimised gambling systems are usually located in restaurants, where the total playing times are shorter. Here, the potential winnings and losses are set at a lower level, so that smaller amounts are won or lost. On the other hand, the return-to-player rates may be more closely aligned with the legal limits, while gambling systems for gambling arcades may also offer slightly higher return-to-player rates, depending on the game design. Since, in the majority of cases, the amounts wagered per game are smaller and a "pushing up" to 2.30 euro per game is less frequent, the typical return-to-player rate per player may be closer to 86 per cent than 82 per cent.

The legislator assumes an average, long-term return-to-player rate for land-based slot machines of currently 85 per cent.²⁰ This rate is used for the following calculation of a theoretical tax on the stakes, on the basis of a 5 per cent tax on the stakes for slot machines in gambling arcades and restaurants.

¹⁷ <https://www.heinrich-hecker.de/spielautomaten-automatenaufstellung/multi-game-geld-spielgeraete/loewen-novo-geldspielgeraete/multi-game-geldspielgeraete-loewen-entertainment-pri-mus-tr5.html>

¹⁸ The limits for the games are set out in the SpielV. Pursuant to section 12 (2) SpielV, the chances of winning displayed on the machine may not exceed a fixed equivalent value of EUR 300 at any time. According to section 13 sentences 4 and 5 SpielV, the sum of losses (stakes less winnings) must not exceed EUR 60 in the course of one hour, and the sum of winnings less stakes must not exceed EUR 400 in the course of one hour.

¹⁹ <https://www.ptb.de/cms/ptb/fachabteilungen/abt8/fb-85/ag-853.html>

²⁰ Cf. Report of the Conference of Finance Ministers of the Federal States (FMK) on the question of the necessity of tax-law adjustments as a result of the new regulation of the gambling sector of 20 November 2020 to the Conference of the Heads of Government of the Federal States (MPK), p. 11

2.2.3 Return-to-player rates of gambling in casinos

Regarding gambling in state-run/state-licensed casinos, a distinction is made between slot machines, referred to here as "small games", and table games such as roulette, blackjack or poker, referred to here as "big games".

Return-to-player rates of 92 to 97.3 percent are indicated for slot machines installed in casinos.²¹ In Bavaria, the indicated average return-to-player rate in the majority of cases is 94 percent.²²

The return-to-player rates for roulette are 97.3 per cent²³, while for blackjack an average return-to-player rate of 94.3 per cent is reported.²⁴ This puts the long-term return-to-player rates for the "big games" (table games) closer to 96 per cent.

However, as "small games" (slot machines) accounted for an average of 79.5 per cent of total gross gaming revenue in state-run casinos in 2018 and 2019²⁵, the average **return-to-player rate across all games of chance offered in casinos is set at 94.4 per cent for the purposes of the calculation below** (79.5 per cent of revenue with 94 per cent return-to-player rate and 20.5 per cent of revenue with 96 per cent return-to-player rate).

2.3 Conversion of the 5 per cent tax on the stakes to a theoretical revenue tax for land-based providers

Within the framework of this brief analysis, we shall now examine how a comparable tax on 5 per cent of the stakes would affect land-based slot machines in gambling arcades and restaurants as well as gambling in casinos.

Instead of extrapolating a volume of stakes for the land-based slot machines and casino games on the basis of the return-to-player rates derived in chapter 2.2, a tax on the stakes can also be converted to a theoretical revenue tax on the gaming revenues generated by land-based operators.

This means the following for land-based slot machines in gambling arcades and restaurants:

If one applies a tax on the stakes with an effective tax rate of 5 per cent on the stakes to types of games that have an average return-to-player rate of 85 per cent and a revenue rate of 15 per cent, the following picture emerges:

²¹ Cf. <https://www.spielbank-wiesbaden.de/index.php?id=308>

²² Cf. <https://www.spielbanken-bayern.de/spielinfos/spielregeln/automaten>

²³ Cf. https://www.spielbank-wiesbaden.de/fileadmin/downloads/pdf/franz_Roulette.pdf

²⁴ Cf. <https://www.spielbanken-bayern.de/spielinfos/spielregeln/black-jack>

²⁵ Cf. Annual Gambling Report of the federal states for 2018 and 2019

5 per cent of 100 cents of stakes equals 5 cents. 5 cents corresponds to 33.3 per cent of a revenue of 15 cents. Accordingly, an effective tax rate of 5 per cent on the stakes for operators of slot machines and gambling arcades would be equivalent to a **tax on revenue of 33.3 per cent**.

For gambling in casinos, this means the following:

If one applies a tax on the stakes with an effective tax rate of 5 per cent on the stakes to types of games that have an average return-to-player rate of 94.4 per cent and a revenue rate of 5.7 per cent, the following picture emerges:

5 per cent of 100 cents of stakes equals 5 cents. 5 cents corresponds to 89.3 per cent of a revenue of 5.6 cents. Accordingly, for the Bavarian state-run casinos, an effective tax rate of 5 per cent on the stakes with unchanged return-to-player rates would be equivalent to a **tax on revenue of 89.3 per cent**.

3 Arithmetical application of a 5 per cent tax on the stakes to land-based casino and slot machine games in Bavaria

Below, we shall calculate the difference that arises arithmetically when comparing the current burden through taxes and charges for commercial slot machine operators in gambling arcades and restaurants in Bavaria as well as the state-run casinos in Bavaria with the theoretical burden of a 5 per cent tax on the stakes. This calculation is based on the data for 2018, as this information was available online.

3.1 Application of the tax on the stakes to cash receipts from slot machines in gambling arcades and restaurants in Bavaria

With their 1,087 venues and 1,973 licenses (on average 1.5 licenses per venue)²⁶, the operators of gambling arcades in Bavaria generated total cash revenues of EUR 675 million in 2018.²⁷ At the same time, according to the derivation in chapter 2.1, they paid VAT less input tax at an estimated actual rate of 9.4 per cent. This corresponds to a VAT payment of EUR 64 million. If the gambling arcade operators in Bavaria had to pay a 5 per cent revenue tax, this would, according to the derivation in chapter 2.3, correspond to a tax on revenue of 33.3 per cent (resulting from a conversion of a 5 per cent tax on the stakes). This would correspond to a tax burden of EUR 225 million. The arithmetical difference to the VAT amount currently paid (tax advantage 1) is EUR 162 million.

²⁶ Most venues are operated with multiple licences in order to be able to exceed the number of 12 slot machines per licence stipulated by the SpielV by using hardship arrangements with the relevant municipalities.

Cf. in this context: Arbeitskreis gegen Spielsucht e.V. Trümper/Heimann (2018): "Angebotsstruktur der Spielhallen und Geldspielgeräte in Deutschland" (Supply structure of gambling arcades and slot machines in Germany), available at: <https://docplayer.org/106046337-Angebotsstruktur-der-spielhallen-und-geldspielgeraete-in-deutschland.html>

²⁷ Cf. Landesdatenbank Geldspielgeräte Bayern (Bavarian state database for slot machines) provided by the Arbeitskreis gegen Spielsucht e.V., available at: <https://www.lsgbayern.de/information/datenbank-spielhallen-und-geldspielgeraete-in-bayern> <https://lander.proksimo.de/Bayern>

Tab. 4 Arithmetical difference between the current VAT burden on cash receipts from slot machines in Bavarian gambling arcades, and a 5 per cent tax on the stakes

Reference	Value in EUR million
Cash receipts 2018	675.25
Tax burden with a theoretical 5 per cent tax on the stakes	225.08
Estimated VAT less input tax 9.4 per cent	63.47
Difference to a tax on the stakes (tax advantage 1)*	161.61

* Assumption: VAT is classified under aspects of competition law as a product-related tax

Source: Goldmedia analysis based on the Landesdatenbank Geldspielgeräte Bayern, provided by the Arbeitskreis gegen Spielsucht e.V.

According to Goldmedia's estimate, slot machines in the restaurant sector in Bavaria generated total cash revenues of EUR 384 million in 2018. This total results from the following calculation:

Tab. 5 Calculation of the cash receipts from slot machines in the Bavarian restaurant sector in 2018

Reference	Value
Slot machines in the restaurant sector in Germany 2018	87,000 devices ¹
Slot machines in restaurants outside Bavaria, Berlin, Hamburg	53,382 devices ²
Estimate slot machines in restaurants in Bavaria, Berlin, Hamburg 2018 (difference)	33,618
Number of restaurants (with and without slot machines) in Bavaria, Berlin, Hamburg 2018 (NACE classes 56.10/56.30)	43,607 establishments
Number of restaurants in Bavaria 2018	29,337 establishments ³
Percentage share of restaurants in Bavaria 2018 in total restaurants in Bavaria, Berlin, Hamburg 2018	67.3 per cent
Estimated number of slot machines in restaurants in Bavaria (Application of percentage share of restaurants in Bavaria 2018 to number of slot machines in Bavaria, Berlin Hamburg 2018)	22.618 devices
Average annual cash receipts from slot machines in restaurants in Germany 2016	16,964.64 EUR ²
Estimated cash receipts from slot machines in restaurants in Bavaria in 2018	383.7 million EUR

Source: Goldmedia analysis based on the

1. Annual Gambling Report of the Federal States for 2018
2. Arbeitskreis gegen Spielsucht e.V. Trümper/Heimann (2018): "Angebotsstruktur der Spielhallen und Geldspielgeräte in Deutschland" (Supply structure of gambling arcades and slot machines in Germany)"
3. Federal Statistical Office

According to the derivation in chapter 2.1, VAT at a rate of 9.4 percent was paid on the cash receipts from the slot machines in restaurants. This corresponds to a VAT payment of EUR 36 million. If the operators of slot machines had to pay a 5 per cent revenue tax on the cash receipts from the slot machines in restaurants in Bavaria, this would, according to the derivation in chapter 2.3, correspond to taxation of revenue of 33.3 per cent (resulting from a conversion of a 5 per cent tax on the stakes). This would correspond to a tax burden of EUR 128 million. The arithmetical difference to the VAT amount paid (tax advantage 1) is EUR 92 million.

Tab. 6 Arithmetical difference between the current VAT burden on cash receipts from slot machines in Bavarian restaurants, and a 5 per cent tax on the stakes

Reference	Value in EUR million
Cash receipts 2018, estimate*	383.70
Tax burden with a theoretical 5 per cent tax on the stakes	127.90
Estimated VAT less input tax 9.4 per cent	36.07
Difference to a tax on the stakes (tax advantage 1)**	91.83

* Estimate Goldmedia according to tab. 5**

** Assumption: VAT is classified under aspects of competition law as a product-related tax

Source: Goldmedia analysis based on data from the Arbeitskreis gegen Spielsucht e.V. and the Annual Gambling Report of the Federal States for 2019

3.2 Application of the tax on the stakes to gross gaming revenues of the state-run casinos in Bavaria

The nine casinos operated in Bavaria by the Lotterie- und Spielbankverwaltung (state lottery and casino administration) generated gross gaming revenues (incl. VAT) of around EUR 73 million in 2018. Of this, VAT in the estimated amount of EUR 12 million had to be paid. The gross casino charges including VAT amounted to EUR 21 million.

A tax on revenue of 89.3 per cent (resulting from a conversion of a 5 per cent tax on the stakes) as derived in chapter 2.3 would lead to a tax burden of EUR 65 million. The arithmetical difference (tax advantage) here is between EUR 44 and 53 million, depending on whether the net casino charges of around EUR 9 million (less VAT) in 2018 are taken into account as a product-related tax.

Tab. 7 Arithmetical difference between the casino charge in Bavaria and a 5 per cent taxation of the stakes

Reference	Value in EUR million
Gross gaming revenue 2018	72.73
Tax burden with a theoretical 5 per cent tax on the stakes	64.94
VAT 2018, estimate*	11.56
Difference to a tax on the stakes (tax advantage 1)**	53.37
Gross casino charges incl. VAT	21.41
Difference to a tax on the stakes (tax advantage 2)***	43.52

* Estimate based on the nationally reported VAT share of 15.9 per cent according to the Annual Gambling Report of the Federal States for 2018

** Assumption: VAT is classified under aspects of competition law as a product-related tax

*** Assumption: VAT and casino charges are classified under aspects of competition law as product-related taxes

Source: Goldmedia analysis based on information from the Bavarian State Ministry of Finance and Homeland Affairs

3.3 Summary of the calculation

If the currently planned taxation of virtual slots and online poker of effectively 5 per cent were to be applied to the stakes of land-based slot machines in gambling arcades and the restaurant sector in Bavaria as well as to gambling in Bavarian casinos, their total tax burden, based on the numbers for 2018, would increase from between EUR 111 million and EUR 121 million per year to EUR 418 million. This corresponds to an arithmetical difference (tax advantage) of between EUR 297 and 307 million (with or without setting off the casino charges) for the Federal State of Bavaria alone.

Tab. 8 Summary for Bavaria: Arithmetical difference between the current burden through taxes and charges for land-based slot machines and gambling in casinos, and a 5 per cent tax on the stakes

Market segment	Theoret. tax burden 5% tax on the stakes in EUR million	VAT 2018 in EUR million	Tax advantage 1 in EUR million*	Total burden through taxes and charges in EUR million, 2018	Tax advantage 2 in EUR million**
Slot machines in gambling arcades in Bavaria	225.08	63.47	161.61	63.47	161.61
Slot machines in restaurants in Bavaria	127.90	36.07	91.83	36.07	91.83
Subtotal slot machines	352.98	99.54	253.44	99.54	253.44
State-run casinos in Bavaria	64.94	11.56	53.37	21.41	43.52
Total	417.92	111.1	306.81	120.95	296.96

* Assumption: VAT is classified under aspects of competition law as a product-related tax

** Assumption: VAT and the casino charges are classified under aspects of competition law as product-related taxes

Source: Goldmedia analysis

4 Examination of the de minimis threshold

In addition to a calculation of the potential future tax advantage for the entire land-based market for slot machines and casino games in Bavaria, it must be clarified within the framework of a state aid analysis whether a tax advantage that is to be classified as state aid for the individual companies in the market would exceed a value of EUR 200 thousand within three tax years (approx. EUR 67 thousand per year).

For the nine **casinos in Bavaria**, a precise review is unnecessary. All casinos in Bavaria are owned by the Federal State of Bavaria and operated under public law by the state lottery company Lotto Bayern.²⁸ This means that the tax benefit of between EUR 44 and 53 million calculated for 2018 accrues in full to one single company.

For the market of **slot machine operators** in Bavaria, the situation is more complex. Here, a distinction must be made between

- a) the venues of the slot machines: gambling arcades or restaurants
- and
- b) the operators of the slot machines: corporate groups with branch operations of gambling arcades, individual operators of gambling arcades, operators of slot machines in restaurants and restaurant owners with their own slot machine operating licence.

Looking at the venues of the gambling arcades in Bavaria, the following picture emerges: In 2018, there were 1,087 gambling arcade venues in Bavaria, to which a total tax benefit of EUR 162 million can be attributed. This means that the tax advantage per venue is about EUR 149 thousand. (EUR 162 million divided by 1,087 venues) for 2018. The average tax advantage per venue (operating establishment) within three tax years is thus well over EUR 200 thousand.

The slot machines in restaurants can only be included to a limited extent in a de minimis analysis.

In accordance with the 6th Ordinance Amending the Gambling Ordinance (SpielV), which came into force at the end of 2014, only up to two slot machines (previously three devices) may be installed in restaurants from the end of 2019.

In order to be allowed to operate slot machines in restaurants, all restaurant owners in whose premises slot machines are installed must apply for a gambling licence pursuant to section 24 (1) GlüStV and article 9 AGGlüStV (Implementation Act to the Inter-State Treaty on Gambling), which is granted by the competent municipal administrative authority.

²⁸ Cf.: <https://www.spielbanken-bayern.de/unternehmen/ueber-spielbanken>

At the same time, as for gambling arcades, an application for an independent slot machine operating license for restaurants is required under section 33c (1) 1 of the Trade, Commerce and Industry Regulation Act (GewO).²⁹

Some restaurants have their own slot machine operating licence in order to be able to collect the (sometimes very lucrative) cash receipts in full for themselves as additional income. However, the majority of restaurant owners work with a commercial slot machine operator who splits the cash receipts generated in the restaurant 50/50 or 40/60 with the restaurant owner.³⁰ Some commercial slot machine operators run their own gambling arcades as well as slot machines in restaurants. Others limit themselves to operating gambling arcades or to installing slot machines in restaurants.

Whether a restaurant owner operates the slot machines on his premises with his own slot machine operating licence or cooperates with a slot machine operator is up to the owner's individual cost-benefit assessment. The own operation of the slot machines involves expenses for maintenance and equipment inspection/exchange, an accrual accounting of cash receipts as well as monthly leasing costs. Many restaurant owners prefer saving these expenses and therefore work with a commercial slot machine operator.

If a restaurant owner has his own slot machine operating licence, his cash receipts are not recorded for statistical tax purposes under NACE class 92.00 (in Germany WZ class no. 92.001 for gambling arcades and operation of slot machines), but under NACE division 56 (restaurants/beverage serving activities).

A review of the de minimis threshold can only be reasonably carried out for commercial slot machine operators that operate slot machines as their main business.

Looking at the commercial slot machine operators in Bavaria, the following picture emerges with regard to gambling arcades: A large proportion of the 1,087 gambling arcade venues (as of 2018) are operated by the major gambling arcade chain operators:

- The Admiral Entertainment GmbH (based in Baden-Württemberg)³¹, a subsidiary of the Austrian Novomatic AG, operates approx. 123 of its approx. 550 Admiral gambling arcades in Bavaria.
- The Löwen Play GmbH (based in Rhineland-Palatinate) operates approx. 77 of its approx. 370 Löwen Play gambling arcades in Bavaria.

²⁹ Cf.: <https://www.eap.bayern.de/informationen/leistungsbeschreibung/353869495418>

³⁰ Cf.: <https://www.baberlin.de/verbaende-4#:~:text=Geldspielger%C3%A4te%20in%20der%20Gastronomie%20spielen,%2C%20f%C3%BCr%20das%20Jahr%202010>.

³¹ Admiral Entertainment GmbH is part of the Löwen-Group (Löwen Entertainment GmbH, not connected to Löwen-Play) which as a holding is responsible for the slot machine production and distribution (Novo and Crown slot machines) and gambling arcade operations of the Novomatic AG.

- The Merkur Casino GmbH (based in North Rhine-Westphalia), a subsidiary of the Gauselmann Group, operates approx. 65 of its above 300 Merkur gambling arcades in Bavaria.
- The Schmidt Group (based in Brandenburg) operates approx. 30 of its 170 "gambling stations" in Bavaria.³²

Based on the tax advantage of around EUR 149 thousand per gambling arcade shown above, the following tax advantages accrue to these gambling arcade chains for 2018:

Tab. 9 Arithmetical tax advantage for the major gambling arcade chains in Bavaria in 2018

Gambling arcade chain	Number of gambling arcades in Bavaria	Arithmetical tax advantage 1 in EUR million
Admiral gambling arcades	123	18.29
Löwen Play gambling arcades	77	11.45
Merkur gambling arcades	65	9.66
Schmidt Group gambling stations	30	4.46
Total	295	43.86

Source: Goldmedia analysis

If the 295 branch locations of Novomatic AG, Gauselmann AG and the Schmidt Group are subtracted, 792 gaming arcades remain in Bavaria for 2018. This compares to 758 commercial slot machine operators registered for tax purposes in Bavaria in 2018.³³ This means that the vast majority of gambling arcade operators registered for tax purposes in Bavaria operate one single gambling arcade. To be added are, however, the revenues from the installation of slot machines in restaurants as described above.

³² Sources:

1. <https://www.loewen.de/gruppe/gruppe/>
2. <https://www.loewen-play-unternehmen.de/unternehmen>
3. Novomatic AG consolidated financial statements for the fiscal year from 01 January 2019 to 31 December 2019, available at bundesanzeiger.de
4. Gauselmann annual report 2019 available at: <https://gauselmann.de/presse/services/download-center/>
5. <http://www.spielstation.de/article/unsere-spielstationen/schmidt-gruppe-entertainment/>
6. SCHMIDT Gruppe Entertainment GmbH consolidated financial statements 2019, available at: bundesanzeiger.de
7. Google Maps search

³³ Some of them may not operate their own gambling arcades, but may restrict themselves to the installation of slot machines in restaurants.

The total turnover of commercial slot machine operators registered for tax purposes in Bavaria can be found in the Bavarian turnover statistics.³⁴ Not included here are the revenues of the above-mentioned operators of branch establishments with their corporate headquarters in other federal states as well as the cash receipts of restaurant owners who have their own slot machine operating licence.

Tab. 10 Turnover and VAT of companies registered in Bavaria in the industry class no. 92.00.1 (gambling arcades and operation of slot machines) in 2018 taxed in Bavaria

Reference	Value
Number of companies	758
Gross turnover in EUR million	747
<i>of which turnover from deliveries & services in EUR million</i>	745
Advance VAT payments in EUR million	70
Percentage VAT	9.4 %

Source: Bavarian State Office for Statistics: "Umsätze und ihre Besteuerung (Umsatzsteuer-Voranmeldungen) in Bayern im Jahr 2018" (turnover and its taxation (advance VAT) in Bavaria in 2018)

Looking at the turnover from deliveries and services and deducting from it

- a) a share of 5 per cent for restaurant revenues (restaurant revenues are low in gambling arcades because beverages and food are offered very cheaply³⁵) and
- b) a share of 1 per cent for turnover with entertainment devices without a prize share (share of turnover is negligible, according to an industry association analysis³⁶),

this results approx. in the cash receipts of the slot machines of these companies.

If one applies to these cash receipts a 5 per cent revenue tax, this would, according to the derivation in chapter 2.3, correspond to a tax on revenue of 33.3 per cent (resulting from a conversion of a 5 per cent tax on the stakes). This would correspond to a tax burden of EUR 234 million. The arithmetical difference to the VAT amount paid (tax advantage 1) is EUR 168 million. Dividing this tax advantage by 758 companies results in an average tax advantage of around EUR 220 thousand for 2018.

³⁴ Cf. Bavarian State Office for Statistics: "Umsatz und ihre Besteuerung (Umsatzsteuer-Voranmeldungen) in Bayern im Jahr 2018" (sales and sales taxation (VAT advance returns) in Bavaria in 2018), economic sector No. 92.00.1 (gambling arcades and operation of slot machines), available at: https://www.statistik.bayern.de/statistik/haushalte_steuern/steuern/index.html

³⁵ Cf. <https://www.gamesundbusiness.de/news/details/speisen-und-getraenke-in-spielhallen/>
<https://www.automatenmarkt.de/nachrichten/artikel/verbot-der-kostenlosen-abgabe-von-speisen-und-getraenken-in-spielhallen/>

³⁶ Cf. Institut für Handelsforschung (2020): "Unterhaltungsautomatenwirtschaft - Lage 2019, Entwicklung 2020 - Perspektiven 2021" (Entertainment Device Industry - Situation 2019, Development 2020 - Prospects 2021), commissioned by the Deutsche Automatenwirtschaft e.V.. (DAW), available at: <https://www.ifhkoeln.de/produkt/unterhaltungsautomatenwirtschaft/>

Tab. 11 Arithmetical difference between the current VAT burden on commercial slot machine operators registered for tax purposes in Bavaria, and a 5 per cent tax on the stakes

Reference	Value
Gross turnover from deliveries and services in EUR million	745
less estimated restaurant turnover in million EUR (5 % of total turnover)	37
Cash receipts from slot machines in million EUR, estimate	708
less cash receipts from entertainment devices 1 %	7
Cash receipts from slot machines in million EUR	701
Tax burden with a theoretical 5 per cent tax on the stakes	234
less effective VAT of 9.4%	66
Difference to a tax on the stakes (tax advantage 1)*	168
Average tax advantage per company in EUR	221,187

Source: Goldmedia analysis based on Bayerisches Landesamt für Statistik (Bavarian State Office for Statistics): "Umsätze und ihre Besteuerung (Umsatzsteuer-Voranmeldungen) in Bayern im Jahr 2018" (turnover and its taxation (advance VAT) in Bavaria in 2018)

This makes it clear that, even for the vast majority of small sole proprietorships registered for tax purposes in Bavaria as commercial slot machine operators, the tax advantage within three tax years is well over EUR 200 thousand.

5 Outlook on market development after the pandemic

5.1 Outlook on turnover development of commercial slot machine operators

Despite a multitude of new, stricter regulations, the operators of gambling arcades in Germany have been able to continuously increase their turnover in recent years. In Bavaria, cash receipts increased from EUR 622 million to EUR 675 million between 2014 and 2018.

Over many years, the ban on multiple licences implemented in the GlüStV 2012 (since the SpielV 2006 came into force, only up to 12 slot machines with a corresponding floor space per machine were allowed to be operated under one licence) has not led to a reduction of slot machines. Many gambling arcade operators were able to continue to operate gambling arcades with up to 48 slot machines (4 licences) as compound gambling arcades based on exceptional agreements for hardship situations in the various municipalities. The legislator has recently recognised the economic aspect of multiple licences for the financing of additional costs for the player protection measures required under the GlüStV, the SpielV and the Technical Directive. For this reason, the GlüStV 2021 provides for an opening clause which can be used by the federal states and which is to enable municipalities in the future to grant temporary exceptional permits for up to three gambling arcade licences per building or building complex.³⁷

The implementation of the minimum distance rules of 500 metres between two gambling arcades introduced through the Inter-State Treaty on Gambling 2012, which statistically should have led to the closure of a large number of gambling arcades, especially in conurbations, was held up by transitional regulations until the end of 2017 and, in some cases, until 2021^{38/39}. This gave gambling arcade operators sufficient time to look for alternative locations for new venues.⁴⁰

³⁷ Cf.: section 29 (4) GlüStV 2021

³⁸ Cf. Institut für Handelsforschung (2020): "Unterhaltungsautomatenwirtschaft - Lage 2019, Entwicklung 2020 - Perspektiven 2021" (Entertainment Device Industry - Situation 2019, Development 2020 - Prospects 2021), commissioned by the Deutsche Automatenwirtschaft e.V.. (DAW), available at: <https://www.ifh-koeln.de/produkt/unterhaltungsautomatenwirtschaft/> and

Arbeitskreis gegen Spielsucht e.V. Trümper/Heimann (2018): "Angebotsstruktur der Spielhallen und Geldspielgeräte in Deutschland" (Supply structure of gambling arcades and slot machines in Germany), available at: <https://docplayer.org/106046337-Angebotsstruktur-der-spielhallen-und-geldspielgeraete-in-deutschland.html>

³⁹ A special situation has up to now existed in Berlin: Here, the number of small gambling cafés (one licence, up to 12 machines) has grown significantly over the past 20 years. The Berlin Senate did not enforce the distance rules, which had been applicable since 2012, until 2021, so that many gambling cafés have recently been closed. Source: <https://daniel-buchholz.de/stadtentwicklung/spielhallengesetz-deutliche-verschaerfung-und-sperrdatei>

⁴⁰ Gauselmann annual report 2019

However, the total number of slot machines has declined, especially in 2019, particularly due to the necessary change of venue when the transitional periods expire.

The distance rule, which was increasingly enforced from 2018 onwards, coincided with the deadline for the implementation of the requirements from the 6th Ordinance Amending the Gaming Ordinance (SpielV), which came into force at the end of 2014. These requirements included, in particular, new regulations on maximum winnings and losses, gambling breaks, record-keeping obligations and the limitation of play to one machine per player. This required comprehensive changes in equipment design and gaming systems. The conversion and replacement of all devices in accordance with the Technical Guidelines (TR 5)⁴¹, which is part of the SpielV, was completed by the end of 2018.⁴²

These restrictions limit gambling revenues per machine and have resulted in fewer gambling arcade operators in Germany leasing machines from suppliers and installing them on their premises. As a result of these cumulative effects, the number of slot machines has fallen from around 158 thousand in 2018 to 143 thousand (-9.5 per cent) in 2019.⁴³ In Bavaria, the number of slot machines fell from a maximum of 21,770 in 2016 to 20,536 in 2020 (-5.5 per cent).⁴⁴

In addition, at the end of 2019, the five-year transitional period of the SpielV stipulation expired which had provided that a maximum of only two slot machines may be installed in individual restaurants, instead of the previous three. This led to a reduction of devices in the restaurant sector for the year 2020. At the end of 2019, the number of gambling devices nationwide had already been estimated to have declined from 87 thousand to 77 thousand (-12 per cent).

According to the study "Entertainment Device Industry - Situation 2019, Development 2020 - Prospects 2021" commissioned by the Deutsche Automatenwirtschaft e.V. in mid-2020, the following was beginning to show in early 2020, before the onset of the pandemic: Gambling arcades recorded a stabilisation of revenues at the low level of the previous year. In the restaurant sector, turnover fell due to the removal of the third device.⁴⁵

⁴¹ <https://www.ptb.de/cms/ptb/fachabteilungen/abt8/fb-85/ag-853.html>

⁴² <https://www.bmwi.de/Redaktion/DE/Artikel/Mittelstand/gewerberecht-spielverordnung.html>

⁴³ Annual gambling reports of the federal states for 2018 and 2019 available at: https://www.im.nrw/system/files/media/document/file/gs_jahresreport2019.pdf https://www.im.nrw/system/files/media/document/file/gs_jahresreport2018.pdf

⁴⁴ Cf. Landesdatenbank Geldspielgeräte Bayern (Bavarian state database for slot machines) provided by the Arbeitskreis gegen Spielsucht e.V., available at: <https://www.lsgbayern.de/information/datenbank-spielhallen-und-geldspielgeraete-in-bayern> <https://laender.proksimo.de/Bayern>

⁴⁵ The necessity for players to identify themselves at independent terminals with an ID card (cross-check with the centralised player blocking file) when the GlüStV comes into force in 2021 is not considered by the Fachverband Gastronomie Aufstellunternehmer e.V. to be a major additional hurdle for the future. Cf.: <https://www.casinoonline.de/nachrichten/abgleich-mit-spielersperrdatei-auch-in-der-gastronomie-53062/>

However, according to Goldmedia, the industry will react here, as with the gambling arcades, by intensifying the acquisition of new venues. As of 2019, on average, only 20 per cent of all restaurants had a slot machine installed. Thus, it is to be expected that the total number of slot machines in the restaurant sector will probably once more increase in the coming years.

The effects of the pandemic in 2020, and especially in 2021, have currently led to correspondingly significant declines in turnover in the market for commercial slot machine operators.⁴⁶ For the coming years, however, Goldmedia estimates that the cash receipts generated in 2018 can be used as a guideline for both the gambling arcades and the restaurant sector in Bavaria.

5.2 Outlook on turnover development of state-run casinos

The state-run casinos in Bavaria, like all state-run and state-licensed casino operators in Germany, once again generated significant turnover growth in 2019, following a positive performance in 2018. In Bavaria, gross gaming revenue grew from EUR 72.7 million to EUR 86.7 million.⁴⁷

At the federal level, gross gaming revenue increased from EUR 685 million to EUR 860 million. This growth, from 20 per cent in Bavaria to over 25 per cent on average nationally, underscored a longer-term change in trends (growth in 2018 was 13 per cent) after the turnover declines of the 2010s. With the 2019 result, the casinos once more reached the high level of 2007.⁴⁸

The restrictions on gambling operations that were necessary due to the Corona pandemic as well as the closure phases are currently leading to significant declines in turnover for the casinos.⁴⁹

However, looking at the development in 2018 and 2019, it can be assumed that with the end of the pandemic, turnover figures and visitor numbers of the state-run/state-licensed casinos in Germany will increase and return to the level of 2018 or 2019.

⁴⁶ Cf.: <https://www.wiwo.de/unternehmen/dienstleister/online-casinos-vs-spielhallen-harte-zeiten-fuer-die-koenige-der-spielhallen/26888348.html>

<https://www.diepresse.com/5961021/novomatic-meldet-fur-2020-verlust-von-263-millionen-euro>

⁴⁷ Cf. image brochure Lotto Bayern 2019 available at: <https://www.lotto-bayern.de/imperia/md/content/pfe3/unternehmen2010/imagebroschuere2019-barrierefrei-200519.pdf>

⁴⁸ [https://www.isa-guide.de/isa-casinos/articles/204440.html#:~:text=Hier legt der Bruttospielertrag \(BSE,\(2018: 684,840 Euro.\)](https://www.isa-guide.de/isa-casinos/articles/204440.html#:~:text=Hier%20legt%20der%20Bruttospielertrag%20(BSE,%202018:%20684,840%20Euro.))

⁴⁹ <https://www.casinoonline.de/nachrichten/lockdown-deutsche-spielbanken-bleiben-geschlossen-51195/>
https://www.zeit.de/news/2020-10/07/bayerns-spielbanken-mit-umsatzeinbussen-wegen-corona?utm_referrer=https://www.google.com/
<https://www.nordbayern.de/region/corona-pandemie-macht-auch-bayerischen-spielbanken-zu-schaffen-1.10824103>

Thus, from Goldmedia's point of view, the gross gaming revenues of the casinos in Bavaria in 2018 can be used as benchmarks for the long-term turnover of German casinos.