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**The Coin-operated Gaming and Amusement Machine  
Industry and the Conflict between  
Entrepreneurial Freedom and Public Regulation**

**Economic Development 2017 and Outlook 2018 / 2019**

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of the  
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## **Market for amusement machines, sport-games and jukeboxes**

With its amusement machines with prizes (AWPs), the amusement machine industry (AMI) offers its customers games with small cash prizes. They form the economic backbone of the industry. Due to the German Gaming Ordinance (Spielverordnung, SpielV), stakes, profits and losses are strictly limited. The focus is on entertainment in contrast to gambling that permits large gains and losses in a short time. Gambling is generally banned under the German criminal code (§ 281 StGB) unless permission is granted by the federal states.

Other coin-operated amusement machines offered by the industry include touch-screen devices, video game machines, driving simulators, pinball machines and Internet terminals. Sport-game machines, such as billiards, darts, table soccer, air hockey, supplement the offered game spectrum. Jukeboxes rarely play a role in the multi-media age.

Until the mid-2000s, electromechanical components formed the basis of AWPs. This technology hindered the development of a broad, varied supply. Technological advances in electronics and digitization enabled fundamental innovations in the hardware and software AWPs. With the 5<sup>th</sup> Amendment to the German Gaming Ordinance, which took effect on 1 January 2006, a legal framework was created for such product innovations. While stakes, wins and losses remained strictly limited, a variety of games with different sequences and plots was developed. These new AWPs offer 20 or more video-based, multi-dimensional animated games (multi-gamer), from which the customer can choose. So-called feature games with different themes and game plans, which distribute winnings after successfully completing the game, are part of the product range.

The attractiveness of the multi-gamers has led to a partial substitution, especially of amusement machines without prizes, which lost ground in both technological development and game innovations. The swift pace of innovations in AWPs since 2006

has made it the industry's predominant offer, with 87% in the number of units installed in 2017 and 99% in gross revenues (Table 1).

Table 1: Amusement Machines with and without Prizes and Sport-game Machines

Type of machine	2013	2014	2015	2016	2017			
	Number of machines <sup>a), b)</sup>					Revenues <sup>c)</sup>		
	1000				in % <sup>d)</sup>	in Mill. EUR	in% <sup>d)</sup>	
<b>Amusement machines without prizes</b>	<b>35.0</b>	<b>30.0</b>	<b>25.0</b>	<b>20.0</b>	<b>18.0</b>	<b>6.1</b>	<b>60</b>	<b>0.8</b>
Pinball machines	2.2	2.2	2.2	2.2	2.2	0.8		
Internet terminals	19.5	15.0	10.0	5.0	3.0	1.0		
Score games etc. <sup>e)</sup>	2.5	2.4	2.4	2.4	2.4	0.8		
Video games	10.8	10.4	10.4	10.4	10.4	3.6		
<b>Sport-game machines<sup>f)</sup></b>	<b>19.8</b>	<b>19.8</b>	<b>19.7</b>	<b>19.7</b>	<b>19.7</b>	<b>6.7</b>		
<b>Amusement machines with prizes</b>	<b>267.0</b>	<b>269.0</b>	<b>267.0</b>	<b>264.0</b>	<b>255.0</b>	<b>87.1</b>	<b>7,100</b>	<b>99.2</b>
<b>Total</b>	<b>321.8</b>	<b>318.8</b>	<b>311.7</b>	<b>303.7</b>	<b>292.7</b>	<b>100</b>	<b>7,160</b>	<b>100.0</b>

a) The estimated number of all machines as of 31 December is based on surveys of the VDAI for the entire market and on other available empirical studies **GSG: AkS**, extrapolation on total stock and estimation of recent developments based on own estimations and company survey, **other products: IFH**, company survey; - b) The figures include machines of VDAI members and non-members, sold, rented and leased; - c) Operators' revenues = cash payments including innkeeper's share, value added tax (VAT), amusement tax, etc. - d) of total; - e) Touch-screen machines, juke boxes and other amusement machines; - f) Billiard, dart, table soccer, skittle alleys, bowling, air hockey etc.

Source: Federal Statistical Bureau; VDAI; Arbeitskreis gegen Spielsucht e.V. (AkS); IFH Institut für Handelsforschung GmbH (IFH); own calculations.

### The industry is vertically structured.

Medium-sized, owner-managed companies dominate the operation of amusement machines with and without prizes, sport-game machines in amusement arcades and in pubs, bars and restaurants. The industry includes not only the operators but also the manufacturers of the equipment as well as the wholesale trade. Since 2006, this tripartite division has been subject to a trend pushed by the manufacturers. They have

expanded direct distribution and have reduced the sale of their products in favour of rentals and leasing. The wholesale trade, which traditionally was the link between the equipment-producing manufacturers and the operators, has increasingly become a service provider. The companies that used to work primarily in the distribution of amusement machines have in many cases become consultants for their customers. They develop business models, set-up financing plans, design and furnish amusement arcades etc. The revenues of manufacturing companies and wholesalers can no longer be clearly separated in their functions.

The manufacturers of amusement machines with and without prizes, sport-game machines etc., the wholesalers and other industry-specific service providers constitute a sector upstream of the operators. The revenues of this upstream sector are collected through surveys of key players in the market. They include equipment sales, rental and leasing, as well as all distribution activities, financing, consulting and related services.

The core of the manufacturing companies' activities is reported to the Federal Statistical Office under the heading "Games with coins or tokens". The manufacturing costs are reported as a sub-item of all revenues of upstream companies, as they are implicitly included in upstream sales and remunerated through rental payments, except for inventory changes and year-to-year payments. The sector accounts for only around one-tenth of industry-wide revenues, with the operators providing by far the majority share (Table 2).

Table 2: Revenues of the Coin-operated Gaming and Amusement Machine Industry

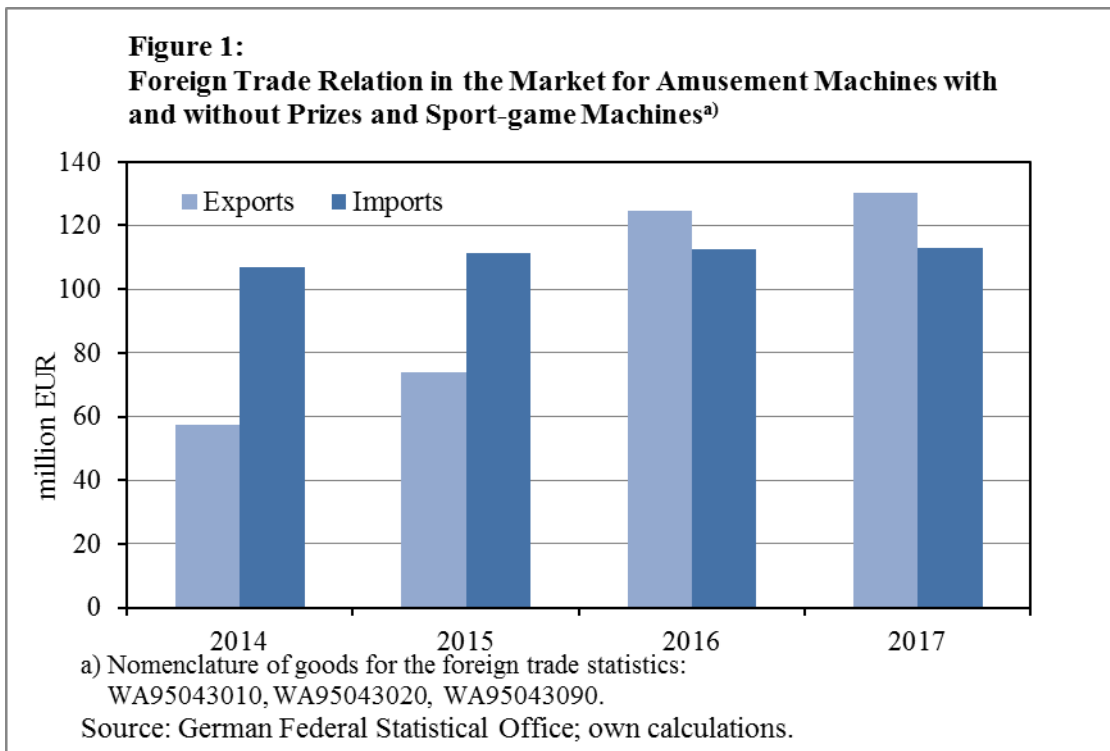
Sector level	2013	2014	2015	2016	2017	
	Mill. €					in%
<b>Total</b>	<b>6,340</b>	<b>6,630</b>	<b>7,215</b>	<b>7,770</b>	<b>7,920</b>	<b>100.0</b>
<b>Upstream-sector, total <sup>a)</sup></b>	<b>800</b>	<b>800</b>	<b>850</b>	<b>860</b>	<b>760</b>	<b>9.6</b>
thereof:						
Manufacturing costs <sup>b)</sup>	460	460	570	540	450	5.7
<b>Operators (Downstream) <sup>c)</sup></b>	<b>5,540</b>	<b>5,830</b>	<b>6,365</b>	<b>6,910</b>	<b>7,160</b>	<b>90.4</b>
Amusement machines with prizes <sup>d)</sup>	5,450	5,750	6,300	6,850	7,100	89.6
Amusement machines without prizes, sport-game machines	90	80	65	60	60	0.8
a) Turnover of manufacturers, wholesale trade and other industry specific service providers with operators (Selling, renting and leasing of amusement machines with and without prizes, sport-game machines, related gaming-software packages, financing, consultancy and other services); - b) Manufacturing costs of music, sport-games and amusement machines with and without prizes based on statistics provided by the Federal Statistical Bureau together with an estimation of positions not reported for reason of confidentiality; - c) Operators' revenues = cash payments including innkeeper's share, VAT, amusement tax, etc. - d) 2013 to 2016 based on the VAT registration applications as published by the Federal Statistical Bureau; 2017 estimation based on a survey of major players.						

Source: Federal Statistical Bureau; VDAI; IFH Institut für Handelsforschung GmbH; own calculations.

### **Manufacturers are expanding faster into foreign markets.**

The equipment manufacturers serve not only the domestic market but also conduct intensive trade outside of Germany. Domestic producers have significantly expanded their activities abroad. In addition to direct foreign investment, they have also increased their exports of equipment in recent years, despite the fact that the varying national jurisdictions constitute a major barrier to trade, particularly for AWP. In addition to strategic considerations for the development of new markets, the investment propensity of domestic operators that has weakened since the Interstate Treaty on Gambling (Glücksspielstaatsvertrag, GlüStV 2012) took effect as of 1 July 2012, also plays a role here. The structural deficit in foreign trade over many years turned into a surplus in 2016 for the first time. In 2017, more than 30% of production was exported (Figure 1).



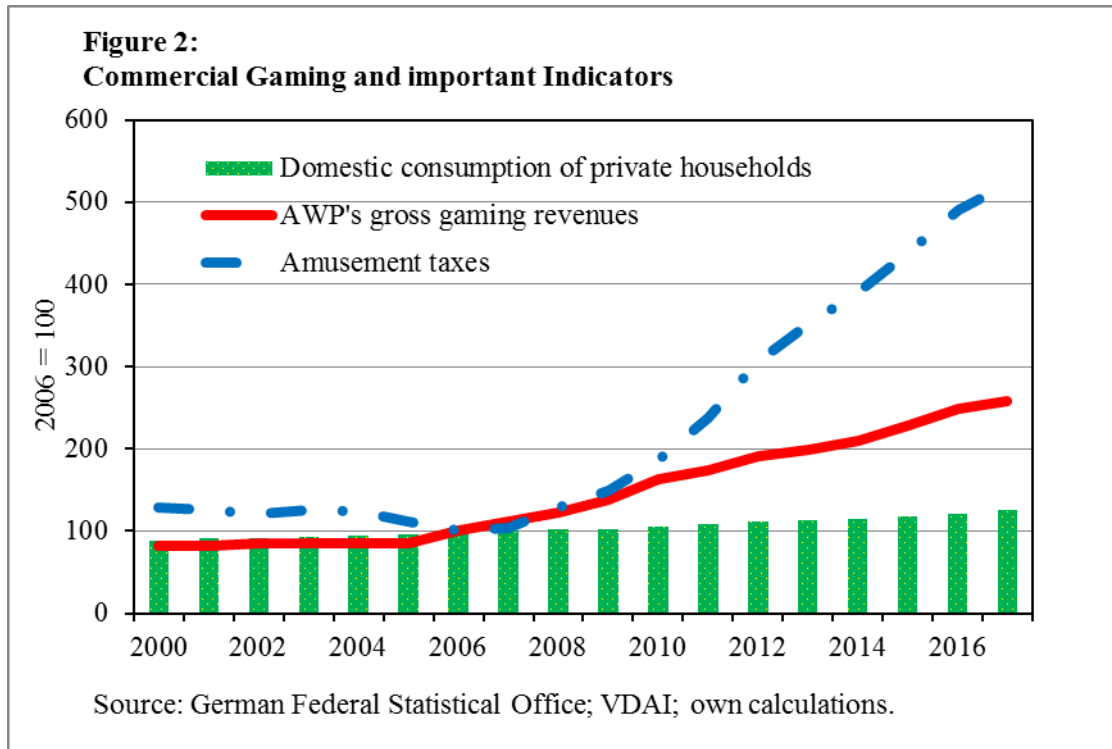


### **Operators grow further on success in domestic markets.**

Commercial gaming suffered from unfavourable conditions and lost market share until 2005; even municipal revenues from amusement taxes declined with simultaneously rising tax rates. Legislators reacted to this situation and created a framework for commercial gaming with the 5<sup>th</sup> Amendment of the German Gaming Ordinance to compete on an equal footing with the gambling services offered by public monopoly providers and private Internet providers. Under the improved framework conditions, gross gaming revenue (GGR) expanded by 9.7% p.a. for the period from 2006 to 2017, an increase of around 2.5 times.

In addition to the changed framework conditions and product innovations, new business models were responsible for the dynamic expansion, which aimed at a stronger integration of amusement arcades in leisure facilities, in addition to cinemas, cafés, bowling centres, etc. The image of the industry changed for the better. New customer groups were accessed.

Disproportionately to this development, the municipal revenue from the amusement tax expanded at an even higher rate of 13.8% p.a., about five times as much. This dynamic increase was triggered by two factors: changes in the tax base and increases in tax rates (Figure 2).



### Commercial gaming boosts municipal tax revenues ...

The success of the amusement machine industry with its approximately 70,000 employees has made it an important source of tax revenue. For the predominantly medium-sized operators, the tax burden before deduction of income taxes and the taxes and duties for employees can be estimated for the period 2006 to 2017. Also not included are taxes and duties paid by equipment manufacturers, wholesalers and industry-specific service providers. For the period under consideration, the operators' tax burden rose from 23% to 30% in terms of net revenues. In absolute terms the sum of the value-added tax, the amusement tax and the commercial tax paid by operators, increased from €570 million to €1,800 million, which to a large extent goes to the municipalities (Table 3). Taking equipment manufacturers, wholesalers and industry-

specific service providers into account the overall tax burden and statutory social security contributions amount to around €2,500 million.

Table 3: Operators' Revenues and Tax Burden

Indicator	2006	2012	2016	2017 <sup>a)</sup>
	Mill. €			
Gross revenues <sup>b)</sup>	2,970	5,350	6,910	7,160
Net revenues <sup>c)</sup>	2,496	4,496	5,807	6,017
	in % of net revenue <sup>d)</sup>			
VAT charged	19.0	18.9	18.8	18.8
VAT paid <sup>e,f)</sup>	14.1	11.1	11.5	11.5
Amusement taxes <sup>g)</sup>	7.9	10.1	15.9	16.4
Commercial taxes <sup>g)</sup>	0.9	1.3	1.6	1.6
<b>Tax burden</b>	<b>22.9</b>	<b>22.4</b>	<b>29.0</b>	<b>29.5</b>
a) Assumption: Share of VAT and commercial tax same as 2016; - b) Operators' revenues = cash payments including innkeeper's share, VAT, amusement tax, etc.; - c) Excl. VAT; - d) Tax burden according to IFH Institut für Handelsforschung GmbH; - e) Figures are consistent with tax revenues for years published by the Federal Statistical Office; - f) Figure for 2006 distorted by the decision of the ECJ on 17. Februar 2006, "Linneweber" on AWP's VAT obligation; - g) Share of amusement tax calculated on operators' effective turnover and paid amusement tax.				

Source: Federal Statistical Office; VDAI; IFH Institut für Handelsforschung GmbH; own calculations.

### **.... and has become a mainstay of the regulated gambling and gaming market.**

Between 2006 and 2013, commercial gaming saw its gross gaming revenues expand dynamically at a rate of 10.3% p.a. In the following years, growth weakened slightly, to 6.3% p.a. This was enough to increase its share of the total gambling and gaming market to 47.4% (2006: approx. 30%). At the same time, the share of the state gambling offer fell to only one third (2006: approx. 65%). Both segments together form the market regulated by the German legislator, whose share of the total gambling and gaming market fell by 6 percentage points between 2013 and 2017 to around 80%. (Table 4)

Table 4: Structure of the Gambling and Gaming Market

Market segment	2013	2017	2013	2017
	Mill. Eur <sup>a)</sup>		in % <sup>b)</sup>	
<b>Regulated market</b>	<b>10,269</b>	<b>12,040</b>	<b>86.0</b>	<b>80.3</b>
Public gambling <sup>c)</sup>	4,819	4,940	40.4	33.0
AWPs	5,450	7,100	45.7	47.4
<b>Non-regulated market <sup>d), e)</sup></b>	<b>1,666</b>	<b>2,951</b>	<b>14.0</b>	<b>19.7</b>
<b>Total market</b>	<b>11,935</b>	<b>14,991</b>	<b>100.0</b>	<b>100.0</b>

a) Gross gaming revenue (GGR); b) Total market; - c) German lotteries and pools, German class-, TV-lotteries, casinos incl. commercial supply: horserace betting, saving banks' lotteries "Save and win" - d) Trend extrapolation based on the 2013 - 2016 development.

Source: **State-run gambling and AWPs:** VDAI Data base; **Non-regulated market:** HMdIS-MECN, Zwischenbericht July 2014; Endbericht des Landes Hessen zur Evaluierung des Glücksspielstaatsvertrags, Final version 10 April 2017; Jahresreport 2016 der Glücksspielbehörden der Länder, Final version 20 March 2018; own calculations.

The market not regulated by the German legislator developed particularly dynamically. In 2006, its share of the total gambling and gaming market was around 5% of gross gaming revenue. Since then it has risen to just under 20% in the past year. The annual average growth rates from 2013 to 2017 were around 15% p.a., well above the trend of the regulated market. This market segment is dominated by foreign providers that target their customers primarily via the Internet. It offers online casino games, poker, so-called second lotteries and sports betting.

### **Integration of commercial gaming into national regulation in conformity with EU law**

Commercial gaming is an economic activity governed by federal law. As part of the federalism reform, regulatory authority over the amusement arcades was assigned to the federal states. They used the acquired competence with the Interstate Treaty on Gambling, which came into force in 2012 (GlüStV 2012), and regulated gaming by means of quantitative restrictions (e.g. mandatory minimum distances, the ban of multi-concessions). The transitional period for the application of the provisions also for

existing amusement arcades largely expired on 1 July 2017. The Federal Administrative Court (BVerwG) with its judgments of 16 December 2016 and the Federal Constitutional Court (BVerfG) with its decision of 7 March 2017 have indeed confirmed the legality of the Interstate Treaty on Gambling. However, the constitutionally granted fundamental rights of the operators must be guaranteed. The extent to which the selection procedures developed by the executive body meet this requirement is currently under legal review in a large number of pending legal proceedings. So far, only a few amusement arcades have been closed due to this state of uncertainty. If the legal situation remains unchanged, however, a reduction of more than half of all amusement-machines with prizes (AWP) can be expected.

The state of implementation of the provisions of the GlüStV 2012 differs between federal states, depending on the severity of implementation. Federal states such as Lower Saxony, Saxony, Saarland and Baden-Wuerttemberg are restrictive in the recognition of hardship applications. Only a manageable number has been approved. Other countries such as Saxony-Anhalt, Brandenburg, Mecklenburg-Western Pomerania and Rhineland-Palatinate, on the other hand, continue to point out the need for a hardship rule. In border regions between two federal states with different interpretations of § 29 Abs. 4 GlüStV 2012, operators of amusement arcades report migratory movements triggered by local supply shortages.

The development since 1 July 2017 shows that the reduction in capacity intended by federal states will take years to come. Following a 3.5% decline in the number of units in the second half of 2017, a reduction of 5% to 10% is expected for the current year, which will continue in the coming years. GGR will also be down, but at a rate of up to -5% p.a. Under these assumptions, about one-tenth of the approximately 5 million AWP players should have left the market by the end of 2019.

The players who completely turn their back on the gambling and gaming market are likely to be casual gamers. For the majority of players, it must be assumed that they will seek a replacement in alternative forms of play. In this context, the illegal terrestrial

offer, which has been increasing for years, has to be considered. The problem is not the traditional “tavern on the corner”, where two or three AWP are operated, and the player is subject to some social control. The problem grows with the increasing number of restaurants whose primary purpose is money gaming. This fictitious gastronomy occurs in the form of café casinos, sports bistros, cultural associations, etc. In addition to legal AWP, illegal gambling machines are also set up there, youth and player protection are not an issue nor are statutory blocking periods.

In all likelihood, there will not only be an evasion to illegal terrestrial but also to not-yet-regulated online gambling, which is available on the Internet at all times and is accessible on mobile devices everywhere. Even though the market for private online casino operators will be effectively regulated in the foreseeable future, a shift of AWP gamers to the Internet would argue against systematically consistent regulation. Online-gambling has specific risk factors compared to terrestrial offers, such as the almost unlimited access, the low inhibition threshold, being able to play anonymously without social control, and cashless payment. Added to this is the need for the legislator to weigh up the options of strict regulation of online gambling and the goal of preventing a shift to illegal offers, which points to the limitations of a strict policy.

For a coherent regulation that complies with European law, a legal framework with qualitative criteria for commercial gaming would have to be created in connection with a new Interstate Treaty on Gambling, which integrates the legally permitted offer with the strictly regulated offer under the SpielV – horizontally coherent – into the regulatory framework of the gambling and gaming market. The potential risks of all forms of gambling and gaming should be considered, in particular the online casinos. Evasive movements of AWP gamers to the Internet – provided they are triggered by the provisions of the GlüStV 2012 – would indicate an existing incoherence that does not conform to European law.