



# Danish gambling market statistics

## Fourth quarter, 2017

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**Indhold**

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## A. Introduction

The Danish Gambling Authority is responsible for ensuring a well-regulated gambling market in Denmark. Quarterly statistics are collated and then published on the Danish Gambling Authority's homepage<sup>1</sup> to provide a common platform for transparency in relation to developments in the gambling market.

The gambling sector comprises of the following eight sub-sectors, each defined under the Danish Gambling Act (Lov om Spil):<sup>2</sup> *Lotteries; class lotteries; charity lotteries; online casinos; land-based casinos; the liberalised betting market; betting on horse, dog, and pigeon racing; and, gaming machines (AWP)*. These categories are used for defining the markets and the recording of gambling statistics. The sub-sectors each have their own licensing procedure, reflecting the varying regulatory and commercial issues associated with each market.

As such, the data for gambling statistics is recorded at different points in time for each sub-sector, with varying levels of regularity. This report covers the liberalised betting market,<sup>3</sup> online casinos, gaming machines,<sup>4</sup> and land-based casinos. Statistics for lotteries and betting on horse-racing<sup>5</sup> are set out briefly in Section G.

The data presented in this report is based upon the estimates that can be drawn from the data available at the time of going to press. These figures are still subject to change, for example in connection with delayed reporting of fees. Figures do not take account for inflation.

Statistics relating to gross gaming revenue (GGR), stakes, and winnings are based upon data submitted to the Danish Tax Authority (SKAT). Data concerning consumer behaviour in the gambling market, including gambling forms within individual markets and sales channels, is sourced from data submitted to the Danish Gambling Authority by gambling operators. Please note, based upon the different data collection methods for recording gambling duties and recording gambling transactions, slight statistical discrepancies between the two datasets are unavoidable.

Quarterly statistics are published approximately two months after the end of the relevant quarter. This reflects the different tax reporting periods for the four focus markets. As noted in the third quarter report, there have been some small corrections to the figures for September 2017, there are some adjustments to figures previously published for the third quarter of 2017.

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<sup>1</sup> The Danish Gambling Authority's homepage can be found at [www.spillemyndigheden.dk/en](http://www.spillemyndigheden.dk/en)

<sup>2</sup> Bekendtgørelse af Lov om spil LBK nr. 1494 af 06/12/2016 kan findes her: <https://www.retsinformation.dk/Forms/R0710.aspx?id=183646>

<sup>3</sup> As noted in the opening paragraph, betting on horse, dog, and pigeon racing is not liberalised. From this point onwards, the term "betting" is used to describe the liberalised betting market.

<sup>4</sup> From this point onwards, the term "gaming machines" is used instead of "prize-giving gaming machines". The Danish Gambling Authority does not hold data for gaming machines that do not offer cash prizes.

<sup>5</sup> The Danish Gambling Authority does not collect statistics for trackside betting pools at dog and pigeon races.

## B. Quarterly market statistics for the Danish Gambling market

The latest combined GGR figures for the liberalised betting market, online casinos, gaming machines, and land-based casinos show annual market growth of 6.9 percent between 2016 and 2017, though growth was effected by developments in individual markets as is set out in Table 1. The market for online casino follows seasonal trends for third to fourth quarter growth, while the growth rate for betting GGR is higher than seen in previous years. It is a different situation for gaming machines, which unlike the past three years, did not grow between the third and fourth quarters. At the same time, GGR for land-based casinos is at its lowest since the fourth quarter of 2015. Combined quarterly growth for the four aforementioned markets totalled 147.6 million kroner relative to the third quarter of 2017, equating to growth of 9.9 percent or year-on-year growth of 15.3 percent (218 million kroner). Given the nature of the developments in the fourth quarter of 2017, it is not possible to draw further conclusions on the background of this growth on the development of the Danish gambling market in general.

Table 1. Quarterly GGR for the four focus markets since first quarter of 2014 (million kroner)

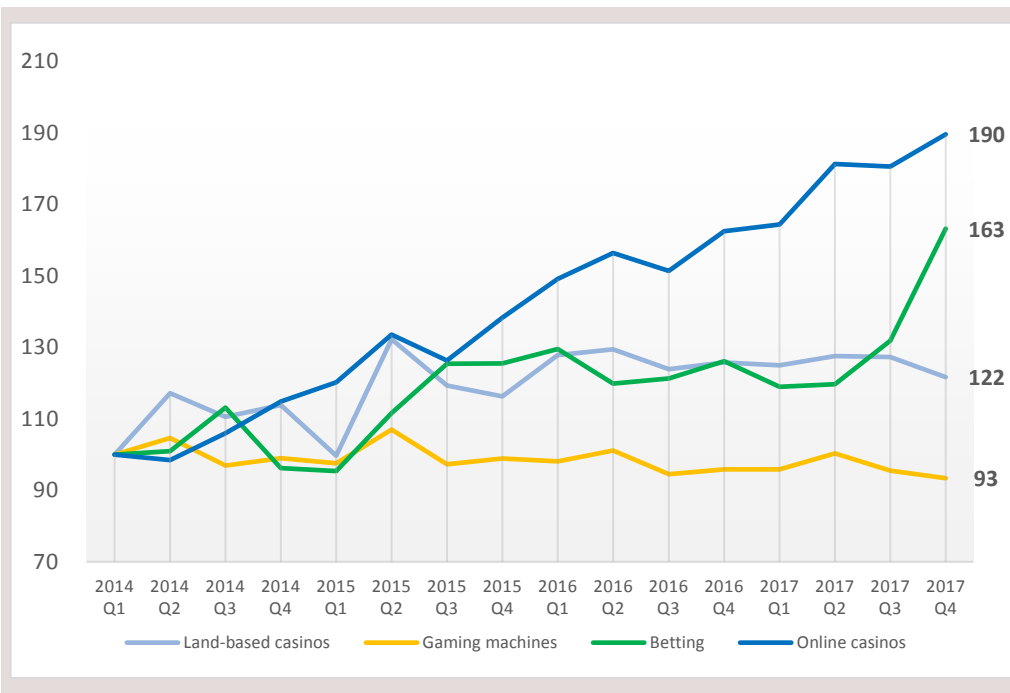
		Q1	Q2	Q3	Q4	Year
2014	Combined	1.149,7	1.180,9	1.218,1	1.177,1	4.725,9
	Betting	436,5	440,8	493,8	420,1	1.791,2
	Online casinos	252,3	248,4	267,3	289,7	1.057,8
	Land-based casinos	74,7	87,6	82,6	85,1	330,1
	Gaming machines	386,2	404,2	374,4	382,2	1.546,9
2015	Combined	1.171,0	1.336,2	1.331,2	1.365,9	5.204,3
	Betting	416,4	487,3	547,6	548,0	1.999,2
	Online casinos	303,3	337,0	318,8	349,1	1.308,2
	Land-based casinos	74,5	98,8	89,2	86,9	349,4
	Gaming machines	376,8	413,1	375,6	382,0	1.547,6
2016	Combined	1.415,8	1.405,1	1.368,8	1.424,4	5.614,1
	Betting	565,4	523,2	529,3	550,4	2.168,3
	Online casinos	376,3	394,6	382,1	410,0	1.562,9
	Land-based casinos	95,6	96,7	92,6	94,0	378,9
	Gaming machines	378,6	390,6	364,8	370,0	1.504,0
2017	Combined	1.397,7	1.462,8	1.494,8*	1.642,4	5.997,7
	Betting	519,2	522,4	575,4	712,4	2.329,4
	Online casinos	414,8	457,5	455,6	478,4	1.806,4
	Land-based casinos	93,4	95,4	95,1	90,9	374,8
	Gaming machines	370,3	387,5	368,6	360,6	1.487,0

Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

The varying quarterly GGR growth rates are presented in figure 1, where, taking a starting point in the first quarter of 2014,<sup>6</sup> quarterly GGR in each sector is benchmarked at index 100. Here it is clear to see the relative strength of the online casino market contra the three other focus areas, though the betting market has also undergone growth in the fourth quarter of 2017. Gaming machines have recorded relatively consistent quarterly GGR figures since the first quarter of 2014, albeit with a slight downward trend. GGR for land-based casinos has been relatively stable since the third quarter of 2015.

<sup>6</sup> The first quarter of 2014 is chosen as the starting point, as it marks two years after the liberalisation of the betting and online casino markets, giving the markets time to have stabilised. However, a proportion of the growth in the market must still be attributable to the effects of liberalisation.

Figure 1. Indexed quarterly GGR (2014 Q1: index 100)



Source: Tax returns submitted to the Danish Tax Authority.

As total GGR for lotteries (as well as betting on horse racing) is only included in our statistics for the fourth quarter in each year, due to reporting of this data on a yearly instead of quarterly or monthly basis, these figures are instead published in a separate section – Section G. This is because the comparisons with the four aforementioned focus markets is set out annually and therefore varies from the above due to a lower level of detail.

## C. Online casinos

GGR for online casinos grew by 22.8 million kroner, equivalent to 5.0 percent, between the third and fourth quarter of 2017. This follows general seasonal trends for the third to fourth quarter seen in previous years. GGR for the fourth quarter of 2017 is also 68.4 million kroner higher than the fourth quarter of 2016, with year-to-year growth of 16.7 percent.

Growth in the fourth quarter was highest for games without commission (single player casino games). Growth of 5.3 percent was recorded between the third and fourth quarter, while games with commission (multi-player casino games) grew by 1.3 percent in the same period. Quarterly figures for online casinos are presented in Table 2.

Table 2. Quarterly stakes, prizes, commission, and GGR<sup>7</sup> for online casinos (million kroner)

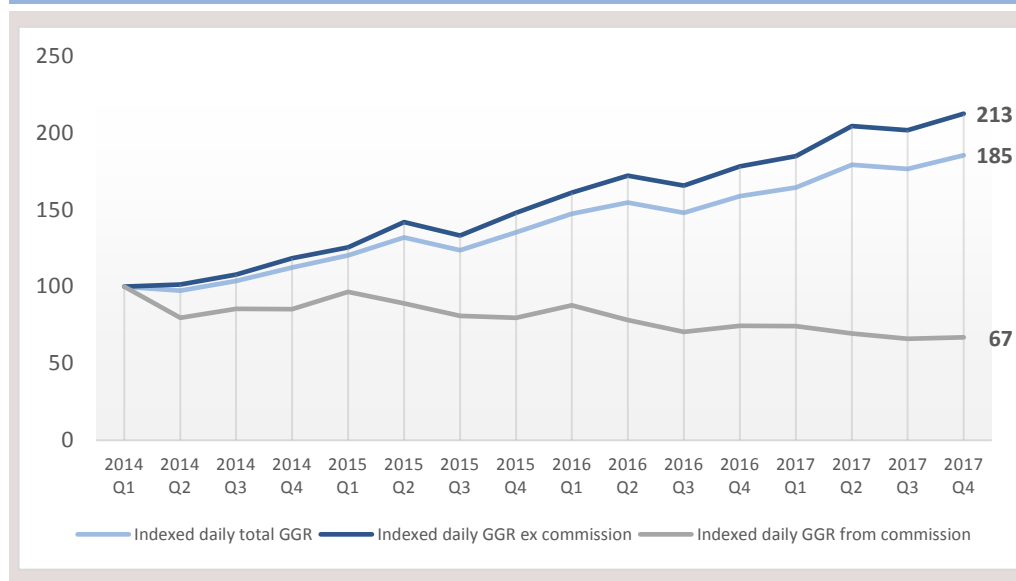
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year
2014	Total GGR	252,3	248,4	267,3	289,7	1.057,8
	- Stakes	5.109,8	5.242,3	5.844,7	6.109,5	22.306,4
	- Prizes	4.904,5	5.031,7	5.618,4	5.860,7	21.415,2
	- Commission	46,9	37,8	41,0	40,9	166,6
2015	Total GGR	303,3	337,0	318,8	349,1	1.308,2
	- Stakes	6.447,0	7.318,3	7.277,7	7.975,7	29.018,7
	- Prizes	6.189,0	7.023,6	6.997,7	7.664,8	27.875,1
	- Commission	45,3	42,3	38,8	38,2	164,6
2016	Total GGR	376,3	394,6	382,1	410,0	1.562,9
	- Stakes	8.590,2	9.278,5	8.819,0	10.028,8	36.716,6
	- Prizes	8.255,7	8.921,1	8.470,8	9.654,6	35.302,1
	- Commission	41,7	37,1	33,9	35,8	148,4
2017	Total GGR	414,8	457,5	455,6	478,4	1.806,4
	- Stakes	10.290,6	11.604,3	11.457,6	12.659,3	46.011,8
	- Prizes	9.910,6	11.179,8	11.033,6	12.213,0	44.337,1
	- Commission	34,9	33,0	31,7	32,1	131,6

Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

Taking the first quarter of 2014 as a benchmark, by the end of the fourth quarter of 2017, GGR generated by online casinos grew by 89.6 percent. As table 2 shows, growth has been driven by the single-player online casino market, with fourth quarter 2017 figures 117.3 percent higher than the first quarter of 2014. In contrast, average daily GGR from commission to participate in multi-player games fell by 31.6 percent over the same period. Total quarterly GGR growth, non-commission GGR, and commission GGR are charted in Figure 2, benchmarked against the first quarter of 2014 and corrected for the varying lengths of each quarter.

<sup>7</sup> Stakes and prizes only cover games without commission. As such, GGR is the sum of commission and stakes minus winnings.

Figure 2. Indexed development of quarterly GGR since 2014



Source: Tax returns submitted to the Danish Tax Authority.

The comparatively higher growth for single player online casino games means that stakes placed in online casinos have also more than doubled since the first quarter of 2014. Whereas just over 5.1 billion kroner in stakes were placed in the first quarter of 2014, in the fourth quarter of 2017, this had risen to 12.7 billion kroner. Between the third and fourth quarters of 2017, stakes rose by over 1.2 billion kroner.

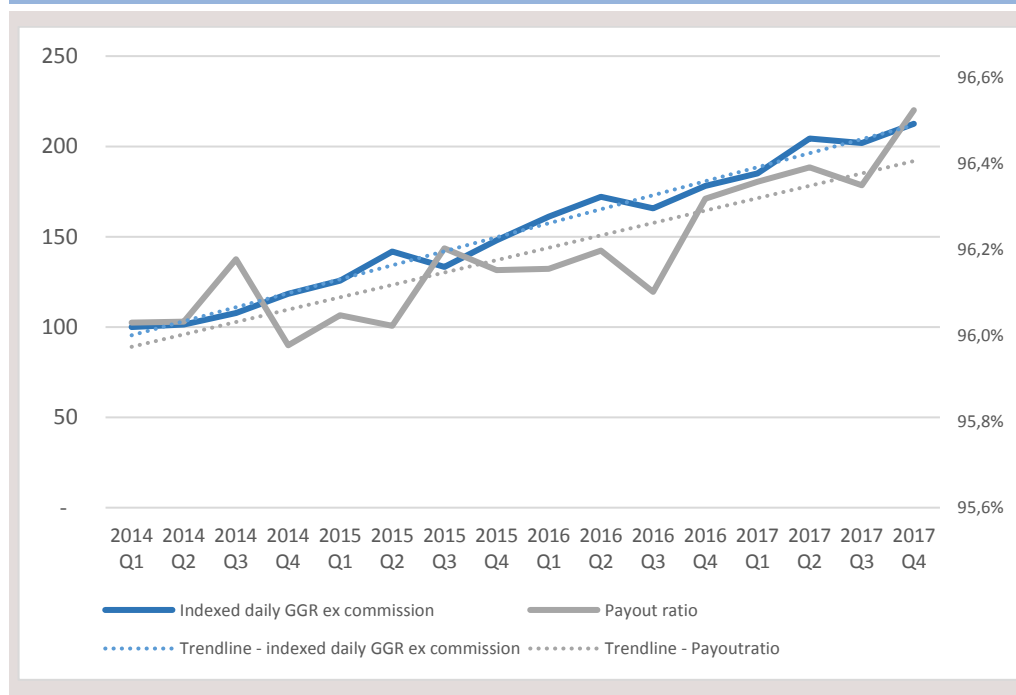
Stakes are not equivalent to money deposited in a gambling account. A player that starts with 100 kroner and stops with 40 kroner has typically placed stakes worth 1,000 kroner, and won prizes worth 960 kroner, without the player ever having deposited more than 100 kroner in their account. The figures become higher, as stakes and prizes are measured for every “spin”.

While there has been significant growth in GGR since the first quarter of 2014, the payout ratio has remained in the region of 96 percent this entire period. Since the first quarter of 2014, there has been a difference of 0.6 percent between the highest and lowest aggregate payout ratio. As figure 3 shows, developments in the quarterly payout ratio and GGR from non-commission online casino games have followed a similar positive trajectory, as illustrated in figure 3 below.<sup>8</sup> Although growth in the payout ratio has been gradual, even slight adjustments to the payout ratio can have significant consequences for GGR, for example:

- GGR would have been 62.3 million kroner higher in the fourth quarter of 2017, if the payout ratio from the first quarter of 2014 (96.0 percent) was applied to stakes placed in the fourth quarter of 2017.
- GGR would have been 25.2 million kroner lower in the first quarter of 2014, if the payout ratio from the fourth quarter of 2017 (96.5 percent) was applied to stakes placed in the first quarter of 2014.

<sup>8</sup> 6 Data in Figure 3 is again corrected for the varying lengths of each quarter.

Figure 3. Development in daily GGR from non-commission games and payout ratio



Source: Tax returns submitted to the Danish Tax Authority.

As set out in table 3, GGR was highest for non-commission online casino games in December 2017, with just over 4.4 billion kroner in stakes placed. In October 2017, GGR was 28.2 million kroner lower, despite stakes being just under 390 million kroner lower. The relatively large change in GGR is due to a payout ratio that was 0.3 percentage points lower in October than December.

Table 3. Monthly GGR for online casino (million kroner), ex. GGR from commission games<sup>9</sup>

	GGR (ex. com)	Stakes	Prizes	Payout ratio
Dec 17	164,8	4.431,3	4.266,4	96,3%
Nov 17	144,9	4.183,4	4.038,5	96,5%
Oct 17	136,6	4.044,6	3.908,0	96,6%
Sep 17	137,3	3.845,3	3.708,0	96,4%
Aug 17	141,4	3.767,7	3.626,3	96,2%
Jul 17	145,3	3.844,6	3.699,3	96,2%
Jun 17	140,8	3.732,7	3.591,9	96,2%
Maj 17	136,1	3.843,3	3.707,2	96,5%
Apr 17	147,7	4.028,3	3.880,6	96,3%
Mar 17	128,0	3.534,2	3.406,2	96,4%
Feb 17	123,7	3.331,2	3.207,5	96,3%
Jan 17	128,3	3.425,2	3.296,9	96,3%
Last twelve months	1.674,8	46.011,8	44.337,1	96,4%

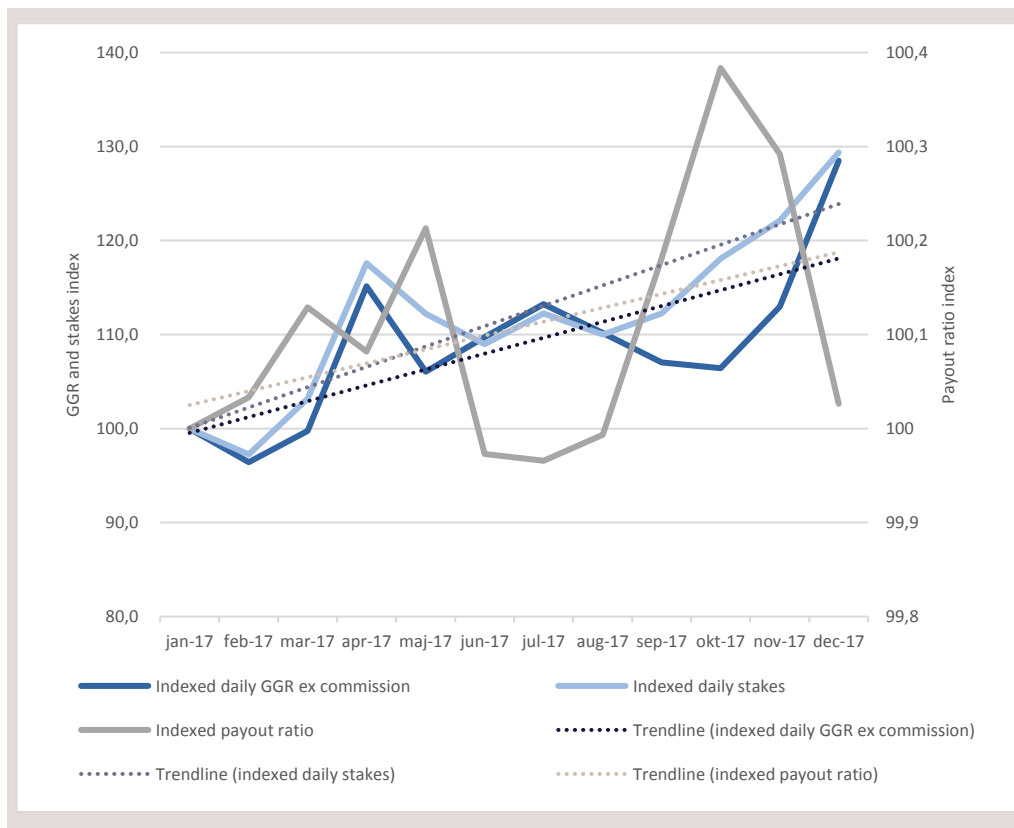
Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

<sup>9</sup> Please note, these figures were updated on 13<sup>th</sup> March due to a systems error where the statistics for the third quarter were shown.



Figure 4 charts the indexed values for average stakes, payout ratios, and non-commission GGR on a daily basis. It shows that while stakes, non-commission GGR and the payout ratio have all grown over the twelve months between January 2017 and December 2017, they have grown at slightly different rates. The payout ratio has grown at a marginally slower rate (0.03 percent) than growth in stakes (29.4 percent), and growth in GGR excluding commission (28.5 percent). The picture is different for the fourth quarter of 2017, where the payout ratio reaches a high of 96.6 percent, which has a clear negative effect upon GGR in that quarter. The payout ratio lowers again in December to 96.3 percent, which is just under the average for the year, leading to growth in GGR.

Figure 4. Indexed development in GGR, stakes, and payout ratio (index 100 = January 2017)



Source: Tax returns submitted to the Danish Tax Authority.

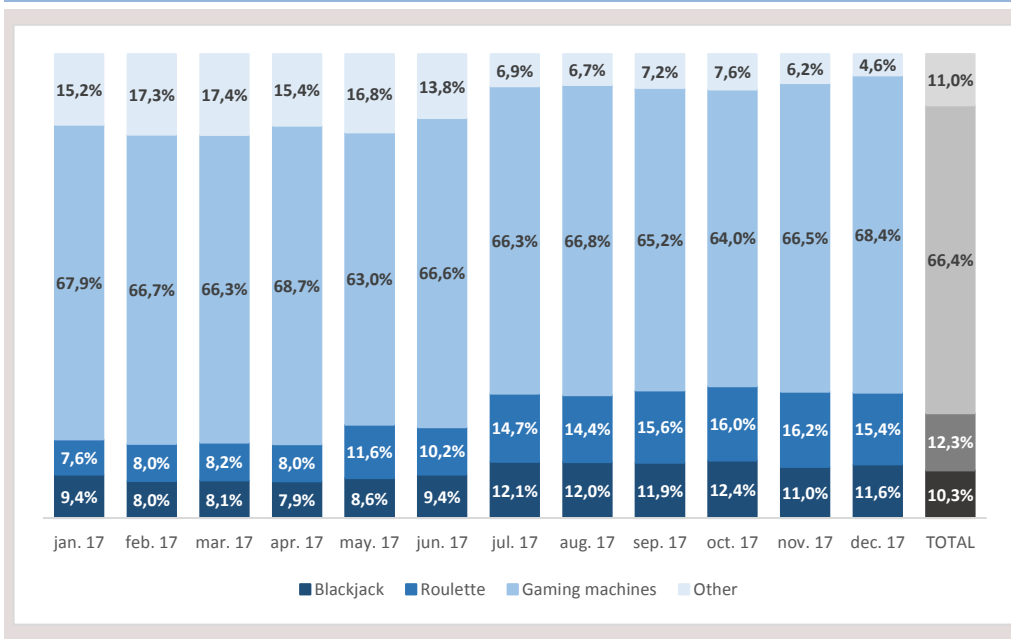
## Game types (online casino)

Online gaming machines were the most popular type of casino game over the last twelve months, with a market share of 66.4 percent.<sup>10</sup> In the fourth quarter of 2017, roulette was the next most popular game with an average 15.9 percent market share, with blackjack in third place with 11.7 percent of the market.

As figure 5 illustrates, market shares for these game types has been relatively stable until June 2017. From July 2017 and onwards, market shares for roulette and blackjack have risen. The Danish Gambling Authority is of the opinion that this is not necessarily a sign of significant changes in the market, but instead that many gambling operators have improved classification of their products instead of using the “other” category for their data. This means that it is likely that the figures for roulette and blackjack are higher than shown in Figure 5.

<sup>10</sup> Measured according to GGR from non-commission games

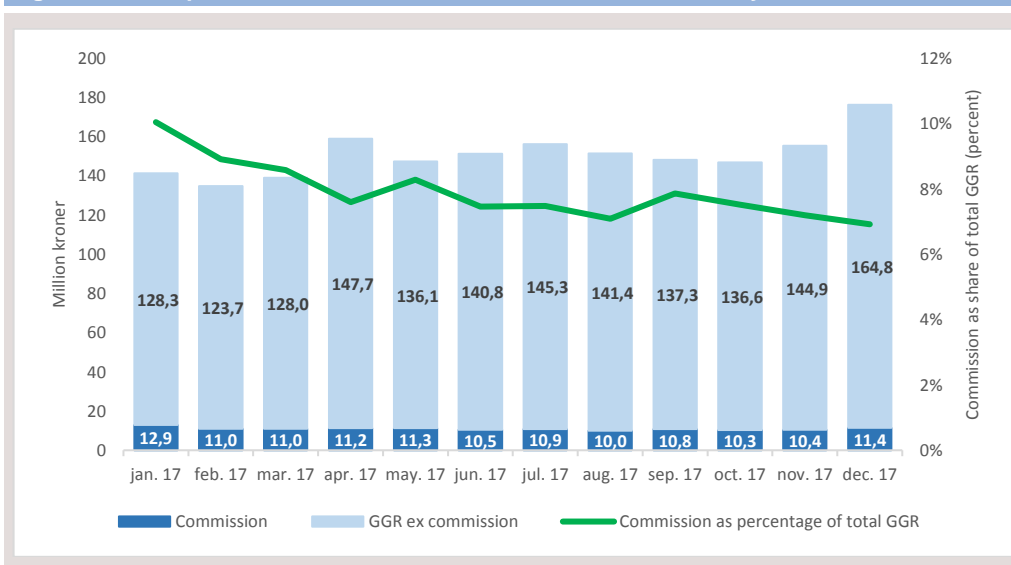
Figure 5. Market share stakes, online casino (ex. com. games) – July 2016 – June 2017



Based upon gambling transaction data submitted by license holders to the Danish Gambling Authority. Market share is calculated according to the total value of stakes placed. Multi-player games, where GGR is calculated on the basis of commission, such as multi-player poker, are not included. Due to data irregularities, June 2017 figures are based upon estimates drawn from a selection of online casino operators.

In figure 5, “other” covers a range of various games including poker played against a machine, sometimes called video poker. For commission games, such as poker cash and poker tournaments, where players pay *commission* to online casino operators to participate, then afterwards play other players for the remaining stakes, GGR is defined as this commission. This commission is then used to calculate gambling duties and therefore stakes and winnings are not traced in the Danish Gambling Authority’s statistics, which are based upon taxation data. Due to this difference, commission games are not included in the statistics in Figure 5. Commission-based games are instead represented in Figure 6 and are based upon GGR filings submitted to the Danish Tax Authorities by gambling operators. There has been a steady downward trend in GGR from these games, both in absolute terms and as a proportion of total GGR.

Figure 6. Development in commission as an element of GGR: January – December 2017

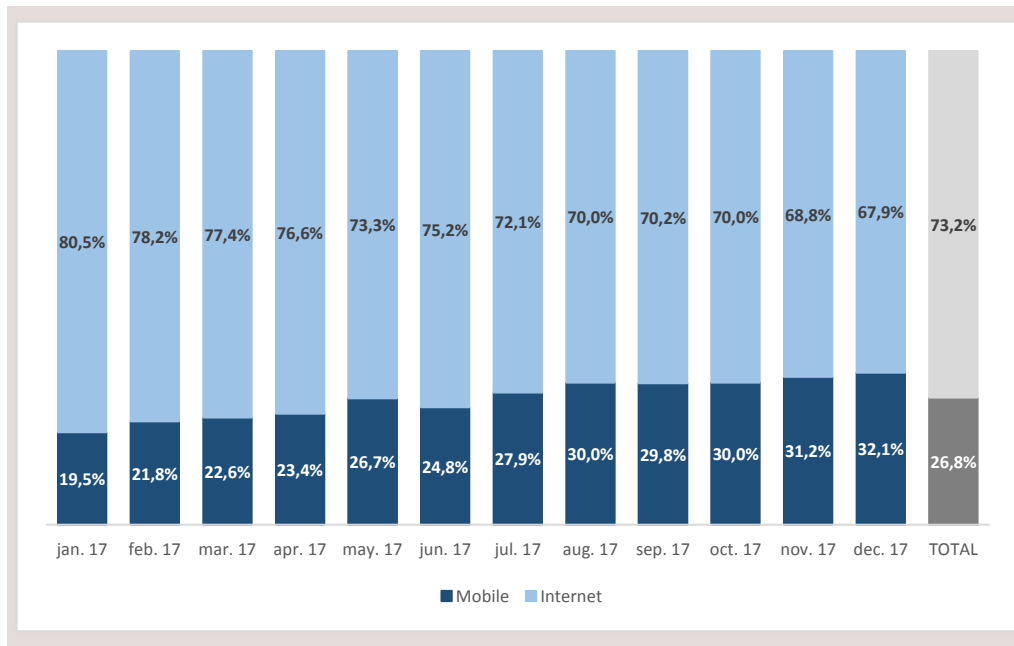


Source: Tax returns submitted to the Danish Tax Authority.

## Sales channel

Over the course of the twelve months between January 2017 and December 2017, 71.2 percent of total turnover in online casinos came from gaming providers' standard websites, with the remaining 23.7 percent generated through mobile platforms.<sup>11</sup> Data in this quarterly report differs from the second quarter report for similar reasons to the amendments to game type data. Despite the alterations to the figures for internet and mobile market shares, the data still shows an underlying trend whereby mobile transactions account for a growing share of the online casino market. Over this period, the share of turnover coming from mobile platforms has risen from 19.5 percent to 32.1 percent, as shown in figure 7.

Figure 7. Market share for internet and mobile platforms – weighted by GGR



Source: Based upon gambling transaction data submitted by licence holders to the Danish Gambling Authority.

<sup>11</sup> The definition of what constitutes sales through a "mobile" platform and sales through the "internet", i.e. gambling operators' standard desktop homepages, is defined by operators' themselves. Some sales classified as "internet" sales could, therefore, have taken place on mobile hardware running a desktop version of an operator's website.

## D. Betting

In the fourth quarter of 2017, the betting market grew by 23.8 percent (137 million kroner) relative to the third quarter of 2017 measured according to GGR. At the same time, the betting market experienced 29.4 percent year-to-year growth in GGR, with quarterly GGR 275.9 million kroner higher than the first quarter of 2014. Quarterly GGR has though remained relatively stable since the third quarter of 2015, with the exception of the growth seen in the last half of 2017. With that said, it is worth noting that while GGR has experienced growth, stakes are 506.4 million kroner lower for the second half of 2017 relative to the first half of the year.

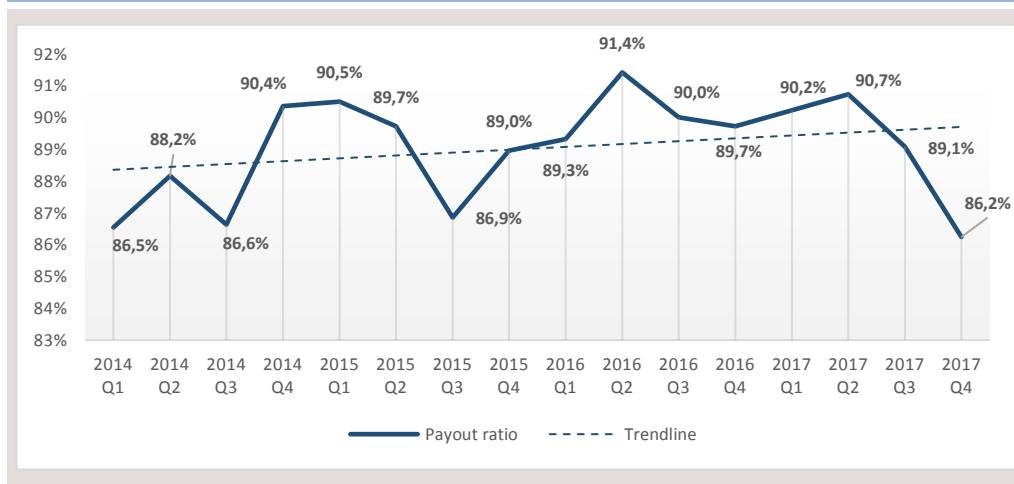
Table 4. Market indicators for the betting market (GGR and stakes in million kroner)

		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2014	Total GGR	436,5	440,8	493,8	420,1	1.791,2
	- Payout ratio	86,5%	88,2%	86,6%	90,4%	88,1%
	- Stakes	3.206,8	3.699,1	3.674,0	4.327,5	14.907,3
	- Quarterly growth	-	1,0%	12,0%	-14,9%	-
2015	Total GGR	416,4	487,3	547,6	548,0	1.999,2
	- Payout ratio	90,5%	89,7%	86,9%	89,0%	89,0%
	- Stakes	4.349,5	4.711,1	4.146,4	4.938,6	18.145,6
	- Quarterly growth	-0,9%	17,0%	12,4%	0,1%	-
2016	Total GGR	565,4	523,2	529,3	550,4	2.168,3
	- Payout ratio	89,3%	91,4%	90,0%	89,7%	90,1%
	- Stakes	5.271,3	6.063,5	5.272,3	5.333,0	21.940,1
	- Quarterly growth	3,2%	-7,5%	1,2%	4,0%	-
2017	Total GGR	519,2	522,4	575,4*	712,4	2.329,4
	- Payout ratio	90,2%	90,7%	89,1%	86,2%	89,1%
	- Stakes	5.293,3	5.617,4	5.245,3	5.161,0	21.317,0
	- Quarterly growth	-5,7%	0,6%	10,2%	23,8%	-

Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

As can be seen in Table 4, since 2014, it is unusual to see the payout ratio drop by as much as 2.9 percent between the third and fourth quarter, as was the case in 2017. The sharp rise in GGR seen in 2017 between the third and fourth quarters is the result of a lower payout ratio, which for the fourth quarter of 2017 is the lowest seen within this timespan. Similarly, the effect upon GGR following alterations in the payout ratio can be seen for the fourth quarter of 2017 in comparison to the fourth quarter of 2016. While stakes were 172 million kroner lower in the fourth quarter of 2017, GGR was 162.0 million kroner higher due to a payout ratio that was 3.5 percentage points lower.

Figure 8. Payout ratio for betting – 2014 Q1 - 2017 Q4



Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

As is illustrated in Figure 8 above, there have been significant variations in the payout ratio, though with a general upward trend, which is though affected for the fourth quarter of 2017 by the lowest payout ratio seen in this period.<sup>12</sup> As earlier mentioned, even slight adjustments to the payout ratio can have significant consequences for GGR, for example:

- GGR would halve been 206.6 million kroner lower in the fourth quarter of 2017, if the payout ratio from the first quarter of 2017 (90.2 percent) was applied to stakes placed in the fourth quarter of 2017.
- GGR would halve been 211.3 million kroner higher in the first quarter of 2017, if the payout ratio from the fourth quarter of 2017 (86.2 percent) was applied to stakes placed in the first quarter of 2017.

Table 5. GGR (exclusive commission), stakes, and payout ratio for betting: January 2017 to December 2017 – million kroner

	GGR (ex. Commission)	Stakes	Payout ratio
December 17	251,6	1.649,4	84,7%
November 17	187,6	1.686,6	88,9%
October 17	270,8	1.825,0	85,2%
September 17	178,1	2.035,2	91,2%
August 17	213,3	1.711,5	87,5%
July 17	180,2	1.486,3	87,9%
June 17	139,9	1.450,5	90,4%
May 17	192,6	1.820,1	89,4%
April 17	188,1	2.346,8	92,0%
March 17	137,6	1.876,5	92,7%
February 17	156,6	1.672,1	90,6%
January 17	223,0	1.744,8	87,2%
<b>TOTAL</b>	<b>2.319,3</b>	<b>21.304,7</b>	<b>89,0%</b>

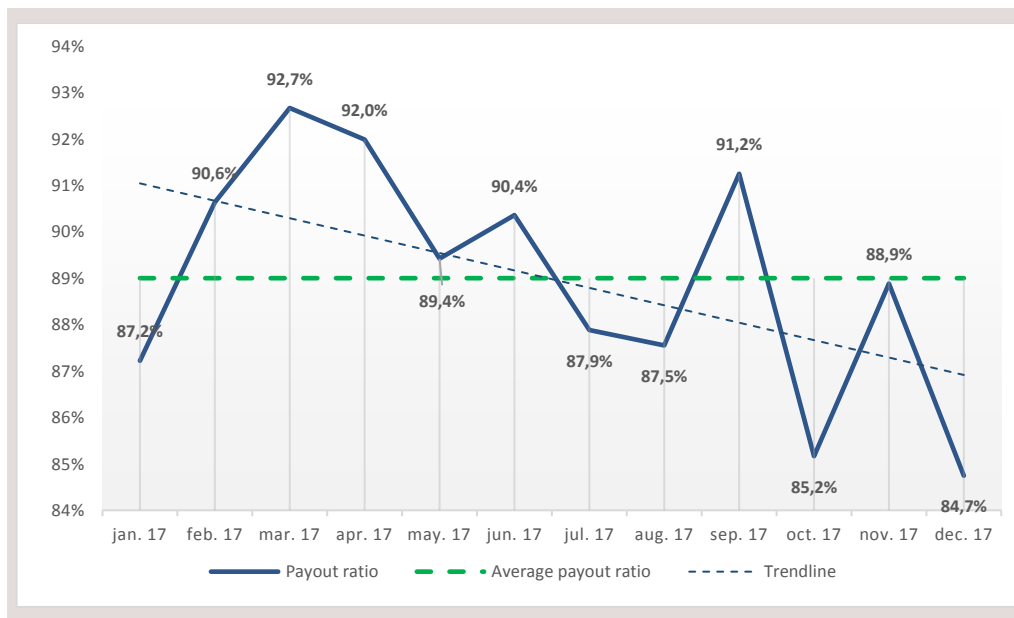
Source: Tax returns submitted to the Danish Tax Authority. \*Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

<sup>12</sup> This trend was not unique to Denmark, with many other European lands reporting similar observations. It must therefore be assumed that the result of certain events where bets have been placed has contributed to the fall in payout ratio, which has had positive results for operators' GGR.

Between January 2017 and December 2017, April 2017 was the busiest month for bookmakers, with over 2.3 billion kroner wagered. But it was far from the highest for GGR; this honour fell to October 2017, where bookmakers generated 270.8 million kroner on non-commission betting. The variation in GGR is reflected by a payout ratio with far greater variation over the twelve months than for online casinos, which is a natural consequence of the differences between the two markets. The average monthly payout ratio for the betting market was as high as 92.7 percent in March 2017, whereas in December 2017, it was a full 8.0 percentage points lower at 84.7 percent. The difference in payout ratio for December 2017 (84.7 percent) compared with, for example, March 2017 (92.7 percent) results in a significant difference in GGR, with December's figures 114.0 million kroner higher than March. This is despite the fact that stakes were 227.1 million kroner lower in December.

As Figure 9 shows, between January 2017 and December 2017, there was a slight downwards trend in the payout ratio, which lies at 89.0 percent on average for the period.

Figure 9. Betting payout ratio (calculated per month) – October 2016 – September 2017



Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

## Sales channels

Unlike the market for casino games, betting licenses may provide for both land-based and online gambling, with online betting divided between mobile and desktop (internet) platforms. According to the Danish Gambling Authority's estimates,<sup>13</sup> in the fourth quarter of 2017, 49.9 percent of GGR from fixed odds betting came through mobile platforms, 15.3 percent from desktop versions of homepages, and the remaining 34.8 percent from land-based bookmakers.

<sup>13</sup> It is important to note that the data presented in Table 6 are estimates based upon a comparison of two sets of data – data on gambling duties paid by gambling operators and figures drawn from the Danish Gambling Authority's gambling control system. The two systems measure different types of data and according to different timelines. Whereas data on transactions (stakes/turnover) is categorised according to sales channels, tax data is not. Instead, tax data is aggregated on a monthly basis, with GGR then calculated according to the formula set out by the Danish Tax Authority. In order to provide an estimate of GGR according to sales channels, transactions data for individual licence-holders is compared with the turnover data used to calculate their GGR, which is then used as the basis for an estimate of aggregated GGR per sales channel. Furthermore, this data does not include data for income-limited gambling licences.

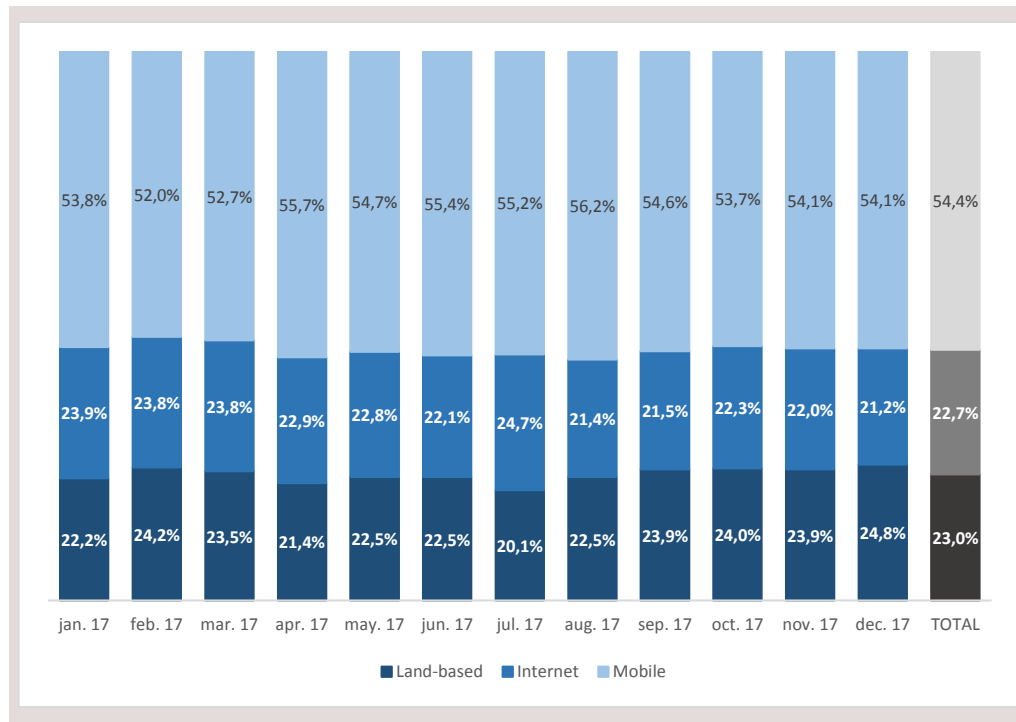
Table 6. Market share according to sales channel, fixed odds betting, weighted by GGR

Sales channel	2017 Q1	2017 Q2	2017 Q3	2017 Q4
Land-based	34,3%	34,7%	33,4%	34,8%
Internet	16,5%	15,5%	16,1%	15,3%
Mobile	49,2%	49,8%	50,5%	49,9%

Source: The Danish Tax Authority / Danish Gambling Authority's Gambling Control System

When seen in relation to turnover (not GGR), the online sector continues to dominate, with mobile platforms accounting for 54.4 percent of total turnover over the months between January 2017 and December 2017 (see Figure 10). Other online transactions (desktop homepages) accounted for 22.7 percent of turnover, while land-based transactions delivered the remaining 23.0 percent.

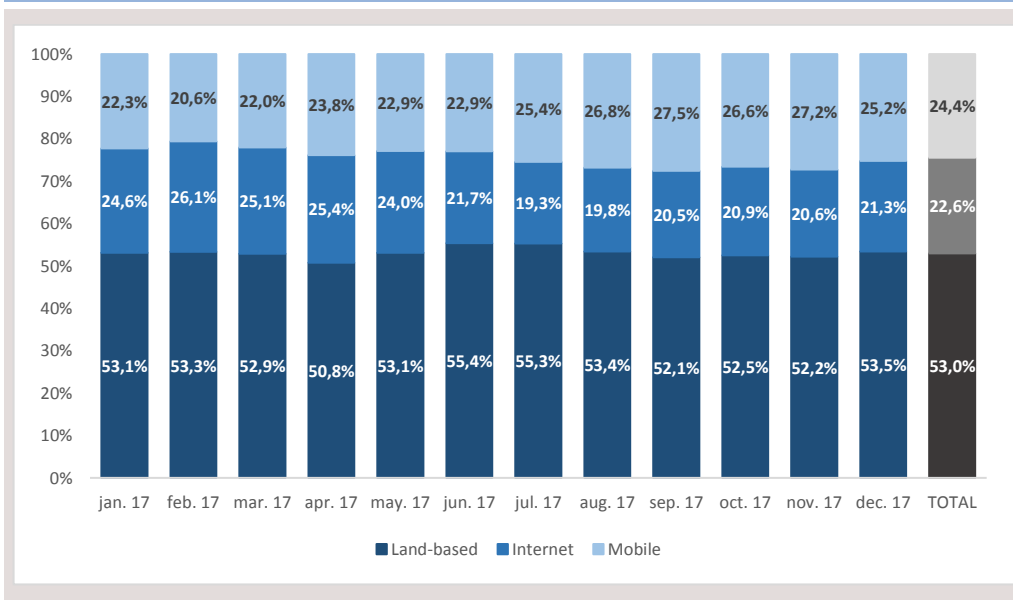
Figure 10. Sales channels for betting, ex. commission betting, according to turnover



Source: Based upon gambling transaction data submitted by licence holders to the Danish Gambling Authority.

When looking at the total number of transactions taking place, land-based bookmakers lead the way however, accounting for over half of all transactions in the same period, with mobile transactions accounting for approximately a fifth of all transactions, as illustrated in Figure 11. As our statistics show, the frequency of mobile transactions have though overtaken internet transactions in recent months.

Figure 11. Sales channels for betting, according to total number of bets placed



Source: Based upon gambling transaction data submitted by licence holders to the Danish Gambling Authority.



## E. Gaming machines

GGR from gaming machines was 8.0 million kroner lower in the fourth quarter of 2017 than the third quarter of 2017, and 9.3 million kroner lower than the fourth quarter of 2016. This equates to a fall of 2.5 percent relative to the third quarter of 2017 and a year-on-year fall of 2.5 percent in quarterly GGR. Despite the general downwards trend in GGR for gaming machines, the fall seen between the third and fourth quarter of 2017 bucks a trend seen in previous years.

Table 7. Quarterly GGR for gaming machines

		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2014	Total	386,2	404,2	374,4	382,2	1.546,9
	- Restaurants	89,8	92,7	89,4	88,8	360,7
	- Gaming arcades	296,4	311,5	284,9	293,4	1.186,1
2015	Total	376,8	413,1	375,6	382,0	1.547,6
	- Restaurants	87,6	92,7	87,5	86,0	353,8
	- Gaming arcades	289,3	320,4	288,2	295,9	1.193,7
2016	Total	378,6	390,6	364,8	370,0	1.504,0
	- Restaurants	85,0	86,4	84,0	84,9	340,3
	- Gaming arcades	293,6	304,2	280,8	285,0	1.163,6
2017	Total	370,3	387,5	368,6*	360,6	1.487,0
	- Restaurants	85,2	87,6	84,0	83,3	340,2
	- Gaming arcades	285,0	299,9	284,6	277,3	286,7

Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

GGR from gaming arcades fell by 2.6 percent between the third and fourth quarter of 2017, as did GGR for gaming machines, though by a lesser degree, 0.9 percent, as shown in table 8.

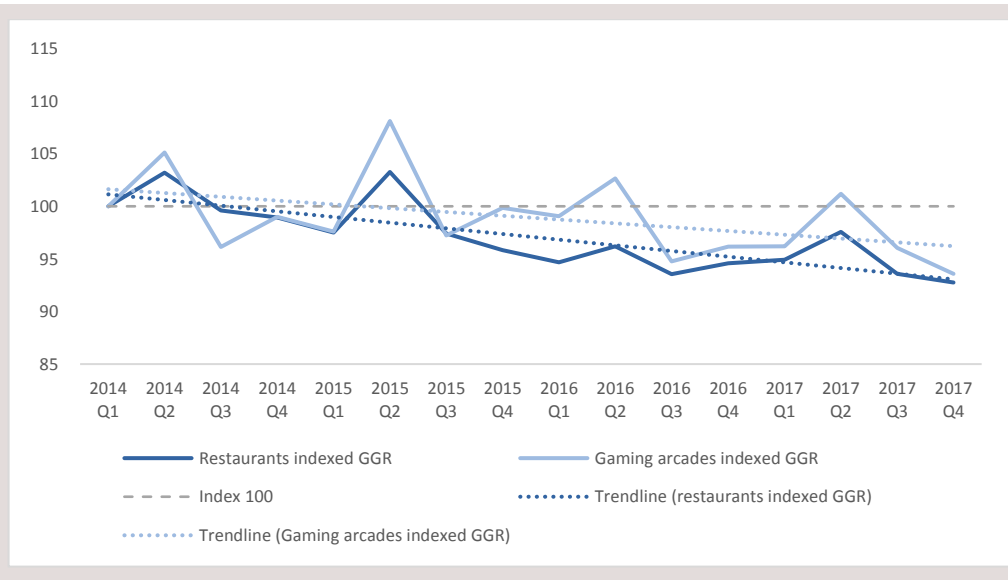
Table 8. Quarter-on-quarter growth in GGR from gaming machines

		Quarter 1	Quarter 2	Quarter 3	Quarter 4
2014	Total	-3,5%	4,7%	-7,4%	2,1%
	- Restaurants	-28,0%	3,2%	-3,5%	-0,7%
	- Gaming arcades	7,6%	5,1%	-8,5%	3,0%
2015	Total	-1,4%	9,6%	-9,1%	1,7%
	- Restaurants	-1,4%	5,9%	-5,7%	-1,6%
	- Gaming arcades	-1,4%	10,8%	-10,1%	2,7%
2016	Total	-0,9%	3,2%	-6,6%	1,4%
	- Restaurants	-1,2%	1,6%	-2,8%	1,1%
	- Gaming arcades	-0,8%	3,6%	-7,7%	1,5%
2017	Total	0,1%	4,7%	-4,9%*	-2,2%
	- Restaurants	0,3%	2,8%	-4,1%	-0,9%
	- Gaming arcades	0,0%	5,2%	-5,1%	-2,6%

Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

The decline between third and fourth quarters is unusual compared to previous years, particularly given that GGR for gaming arcades has also declined, which has not been seen in recent years. However, when seen in relation to the first quarter of 2014, it is restaurants that have experienced the relatively largest decline in quarterly GGR.

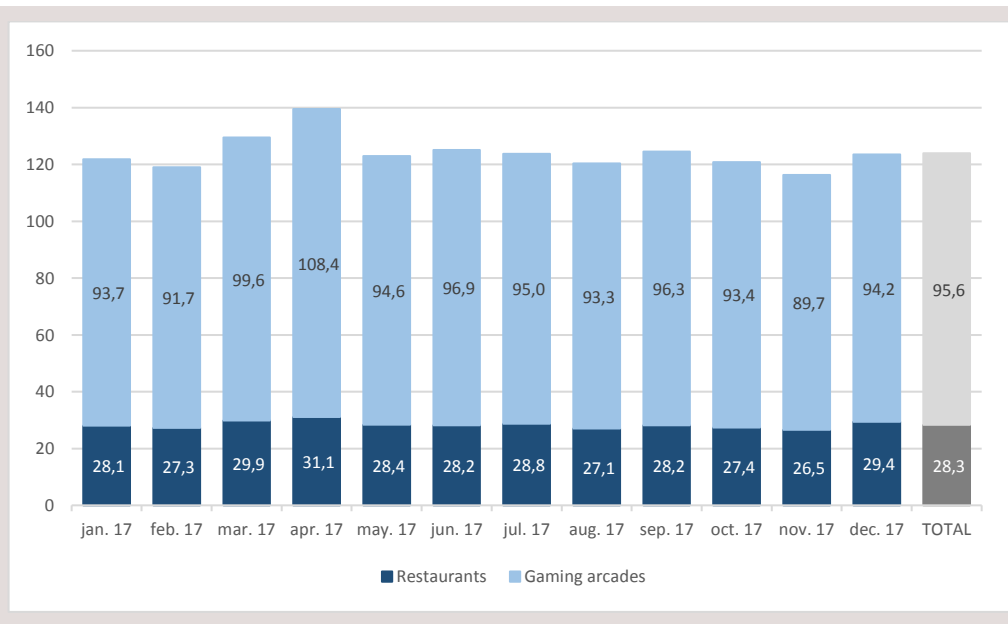
Figure 12. Development in quarterly GGR indexed against 2014 Q1 (index 100) – gaming machines



Source: Tax returns submitted to the Danish Tax Authority.

Gaming machines generated 1.5 billion kroner in GGR over the twelve months between January 2017 and December 2017. On average, restaurants generated 28.3 million kroner in GGR a month, whilst arcades generated 95.6 million kroner a month. For both restaurants and arcades, GGR was highest in April 2017, totalling 31.1 million and 108.4 million kroner respectively.

Figure 13. Monthly GGR for gaming machines: January 2017 – December 2017



Source: Tax returns submitted to the Danish Tax Authority. \* Figures for the third quarter of 2017 are amended since the most recent publication following updated data for September.

## F. Land-based casinos

Quarterly GGR generated by Denmark's seven land-based casinos in the fourth quarter of 2017 is 4.4 percent lower than the third quarter of 2017, and also lower than the fourth quarter of 2016, with year-on-year quarterly GGR 3.3 percent lower. However, since the first quarter of 2014, GGR has grown by 21.7 percent.

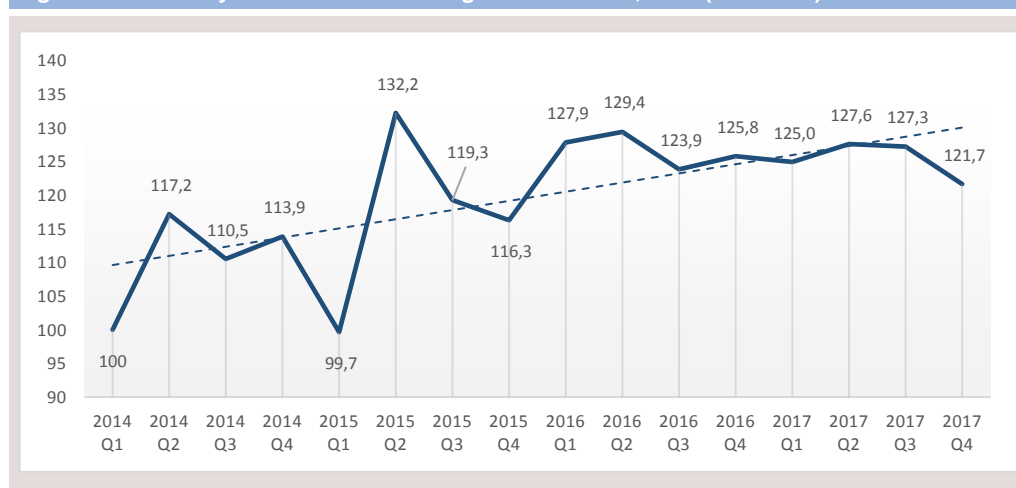
Table 9. Quarterly GGR and growth on previous quarter

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2014	74,7	87,6	82,6	85,1
- Growth on previous quarter	-12,2%	17,2%	-5,7%	3,0%
2015	74,5	98,8	89,2	86,9
- Growth on previous quarter	-12,5%	32,7%	-9,8%	-2,5%
2016	95,6	96,7	92,6	94,0
- Growth on previous quarter	10,0%	1,2%	-4,3%	1,6%
2017	93,4	95,4	95,1	90,9
- Growth on previous quarter	-0,7%	2,1%	-0,3%	-4,4%

Source: Tax returns submitted to the Danish Tax Authority.

Figure 14 charts the value of quarterly GGR indexed against the first quarter of 2014 (index = 100). As Figure 14 shows, developments in GGR have followed a slight upward trend in this period. Quarterly GGR was highest in the second quarter of 2015, though this followed a drop in the first quarter of 2015. Quarterly GGR has remained relatively consistent since the third quarter of 2016, with a slight upwards trend, up until the fourth quarter of 2017, where GGR fell.

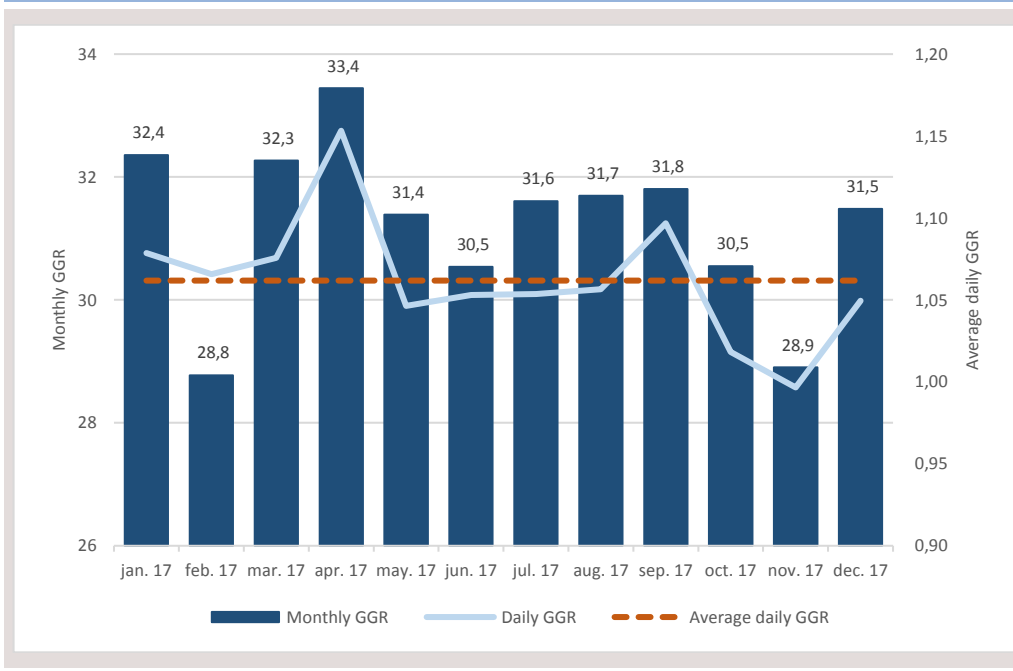
Figure 14. Quarterly GGR benchmarked against Quarter 1, 2014 (index 100) – land casinos



Source: Tax returns submitted to the Danish Tax Authority.

Over the course of the twelve months between January 2017 and December 2017, land-based casinos generated 374.8 million kroner in GGR, or an average of 31.2 million kroner a month. When taking account for the varying lengths of each month, GGR was lowest in November 2017 (1.00 million kroner in GGR per day), while April 2017 was highest (1.15 million kroner in GGR a day). On average, casinos generated 1.06 million kroner a day in GGR between January 2017 and December 2017.

Figure 15. Monthly GGR for land-based casinos



Source: Tax returns submitted to the Danish Tax Authority.

## G. Lotteries and betting on horse racing

Combined GGR for lotteries – Danske Spil A/S's lotteries, the three class lotteries (*Klasselotteriet*, *Varelotteriet*, and *Landbrugslotteriet*), and charitable lotteries – is almost unchanged from 2016, and is estimated to just over 3.1 billion kroner for 2017.<sup>14</sup> Lotteries are the single largest component of the Danish gambling market, accounting for 33.6 percent of the total gambling market in 2017; in 2016, this figure stood at 35.1 percent.

Table 10. Total GGR for gambling market, 2014-2017

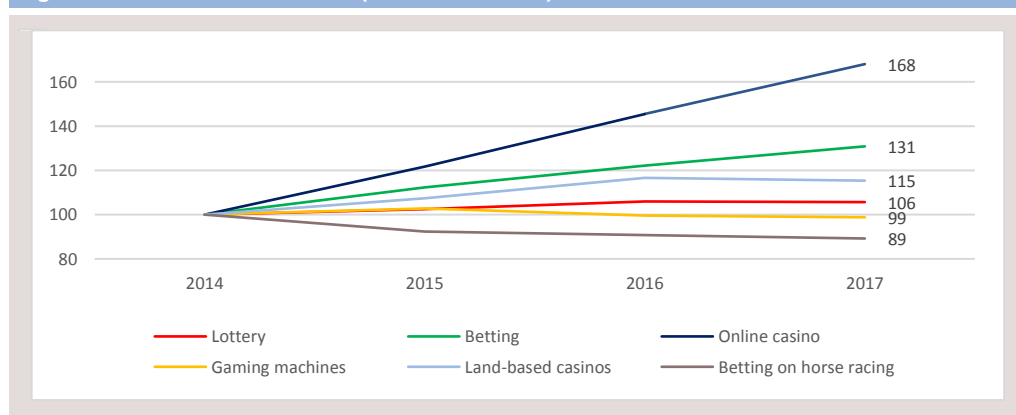
	2014	2015	2016	2017
<b>Lotteries</b>	<b>2.940</b>	<b>3.015</b>	<b>3.115</b>	<b>3.107</b>
Betting	1.780	1.999	2.175	2.329
<b>Betting on horse racing</b>	<b>130</b>	<b>120</b>	<b>118</b>	<b>116</b>
Online casino	1.075	1.308	1.564	1.806
Gaming machines	1.505	1.547	1.499	1.487
Land-based casinos	325	349	379	375
<b>Total GGR</b>	<b>7.755</b>	<b>8.338</b>	<b>8.850</b>	<b>9.221</b>

Source: Tax returns submitted to the Danish Tax Authority, hereunder Dansk Lotteri Spil A/S and Klasselotterierne. The figures for the three class lotteries are based upon estimates from available data.

Total GGR for the Danish gambling sector has grown each year since 2014. This is shown in Table 10, where it can be seen that the total gambling market grew by 371 million kroner, or 4.2 percent, between 2016 and 2017. However, growth in total GGR for the gambling market is solely due to higher GGR in the markets for betting and online casinos. The strength of the legal markets for betting and online casinos since liberalisation explains why the lottery sector is decreasing proportionately.

As shown in Figure 16, betting on horse racing has seen both market share and GGR fall in recent years, ending 2017 on 116 million kroner. Betting on horse racing was subject to a monopoly operated by Danske Lotteri Spil A/S in 2017, though since the start of 2018, has been liberalised.

Figure 16. Indexed annual GGR (2014 = index 100)



Source: Tax returns submitted to the Danish Tax Authority, hereunder Dansk Lotteri Spil A/S and Klasselotterierne. The figures for the three class lotteries are based upon estimates from available data.

<sup>14</sup> GGR for lotteries are reported annually rather than quarterly or monthly (as is seen in the four focus areas for this report). Figures from the *Landbrugslotteriet* and *Varelotteriet* lie outside of the Danish Gambling Authority's field of responsibility, and are included in this report due to the goodwill shown by these lotteries. Due to estimates stemming from varying accounting periods, there may be slight adjustments to these figures in the future.

## H. ROFUS

ROFUS is the Danish Gambling Authority's voluntary gambling self-exclusion register. Registrations in ROFUS cover all online gambling services offered by gambling operators licensed by the Danish Gambling Authority. From January 6th 2017, registration in ROFUS also includes land-based casinos.

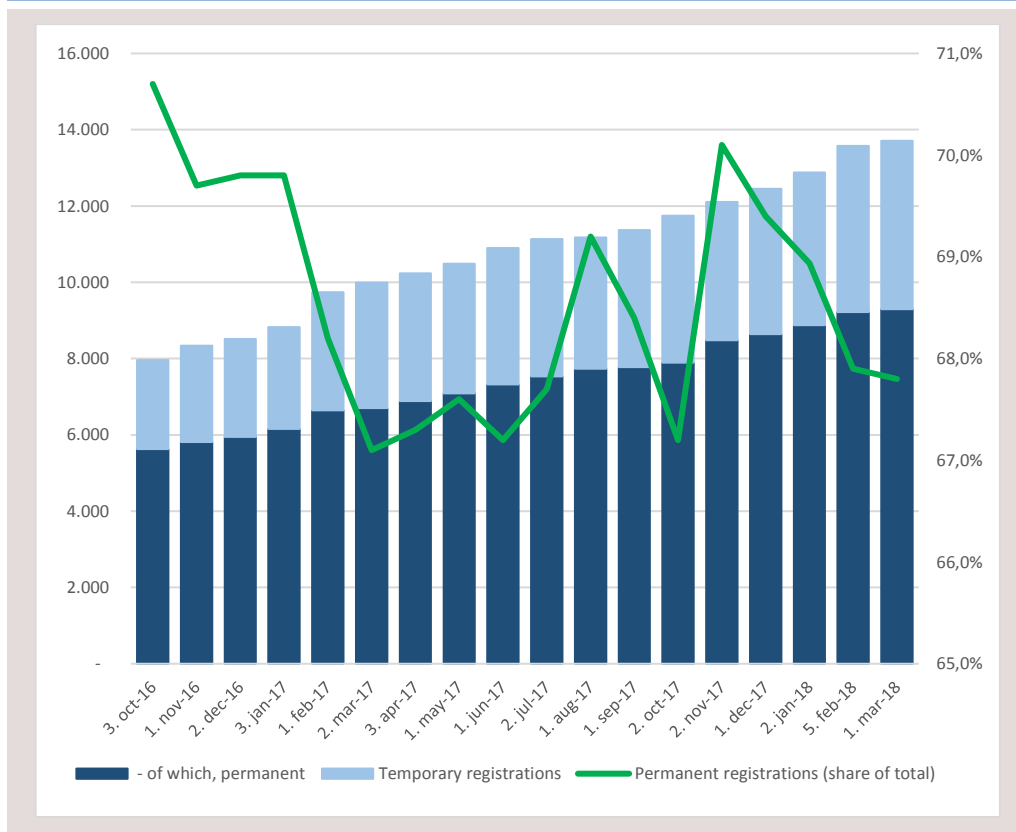
Table 11. Registrations in ROFUS

Date	Total registrations	- of which, permanent	Permanent registrations as share of total registrations
1. mar-18	13.707	9.297	67,8%
5. feb-18	13.579	9.219	67,9%
2. jan-18	12.877	8.877	68,9%
1. dec-17	12.448	8.643	69,4%
2. nov-17	12.109	8.483	70,1%
2. oct-17	11.748	7.891	67,2%
1. sep-17	11.367	7.777	68,4%
1. aug-17	11.173	7.737	69,2%
2. jul-17	11.130	7.534	67,7%
1. jun-17	10.896	7.323	67,2%
1. may-17	10.490	7.088	67,6%
3. apr-17	10.234	6.885	67,3%
2. mar-17	9.993	6.705	67,1%
1. feb-17	9.744	6.646	68,2%
3. jan-17	8.822	6.156	69,8%

Source: Data from ROFUS

As can be seen from the table, the monthly increase has typically been around 2-300 persons (these are the total number of entries, not the number of new entries). The increase of more than 1200 registrations between December and February may be due to the ROFUS (TV) infomercial that has been shown in "OBS" and the TV-2 channels from Boxing Day 2016 to the end of January 2017. Similarly, there was a significant rise between January 2018 and February 2018 of approximately 700 registrations, where the proportion of permanent self-exclusions fell. The rise in the number of excluded persons may be due to a cinema campaign on ROFUS which ran at the start of 2018.

Figure 17. ROFUS – Total registrations (temporary and permanent) and share of registrations



Source: Data from ROFUS

On the 1<sup>st</sup> March 2018, there were 3,714 more registrations in ROFUS than there were on the 2<sup>nd</sup> March 2017, equating to year-on-year growth of 37.2 percent. The majority of this growth was in permanent self-exclusions, with 2,592 more registrations in the period, accounting for 69.8 percent of growth in registrations. As shown in Figure 16, the proportion of total registrations that are permanent exclusions varies from month to month, though in general follows an upwards trend. This means that more people are electing permanent self-exclusion at the same time as more people register themselves in ROFUS.