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**Public policy and on-line gambling
in the European Union**

28 July 2011

Annex 1.

***Freedata, A Statistical Analysis of the Demographic
and Behavioral Characteristics of On-line Gambling in
the EU, 14 July 2011.***

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A FREEDATA REPORT:

A Statistical Analysis of the Demographic and Behavioural Characteristics of On-line Gambling in the EU

July 14th, 2011

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1. BACKGROUND

The purpose of this document is to study the demographic and behavioural characteristics of on-line gambling, analyzing data about subjects residing in eight EU countries.

We used data from a database freely available on the net, containing information by bwin¹. Bwin was an Austrian company offering Internet sports betting and on-line poker, casino, and other games. In 2011 it merged with Party Gaming, becoming Bwin.party and one of the largest on-line gambling European operators.

Within the set of subjects who opened an account with bwin Interactive Entertainment from February 1st 2005 to February 25th 2005 we selected all the players residing in the following EU countries: Austria, Denmark, France, Germany, Greece, Italy, Poland, Spain, summing up to 37.181 users. The list of countries was defined with the objective of analyzing at least 1000 cases in each country.

Country	#	%
Germany	23.686	63,70%
Poland	2.409	6,48%
Greece	2.401	6,46%
Spain	2.370	6,37%
France	2.087	5,61%
Denmark	1.760	4,73%
Austria	1.435	3,86%
Italy	1.033	2,78%
Total	37.181	100,00%

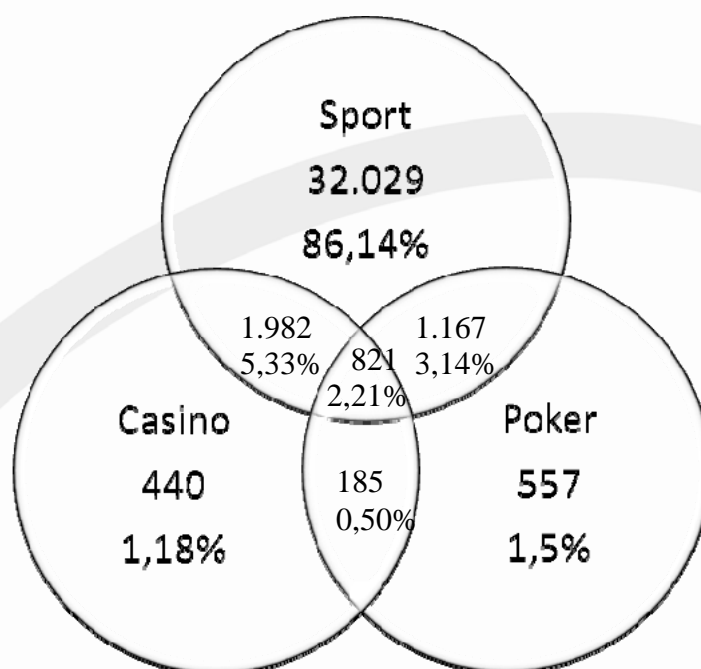
Table 1.1

The sample cells size is not proportional to the population, rather depending from bwin catchment area. All the analyses in this document take care of this bias.

The cohort of subjects who registered from February 1st to February 27th 2005 has been followed in their daily gambling behaviour:

- for 8 months (242 days, up to September 30th 2005) regarding sports betting
- for 2 years (25 months or 758 days, up to February 28th 2007) regarding on-line casino and on-line poker

¹ See www.thetransparencyproject.org



The three games (sports betting, casino, and poker) have been analyzed separately and jointly, whenever the studied variables allowed it.

2. DEMOGRAPHIC CHARACTERISTICS

Country	Male	Female
Austria	86,5%	13,5%
Denmark	92,4%	7,6%
France	93,1%	6,9%
Germany	91,7%	8,3%
Greece	91,2%	8,8%
Italy	94,8%	5,2%
Poland	85,1%	14,9%
Spain	95,0%	5,0%

Table 2.1

The incidence of male players on the total set of subjects is very high in all countries. Only in Poland and in Austria the percentage of females is over 10%, significantly different from the average.

The average age of the on-line gambler is around 30 years old. In the following charts, average values by age in the eight countries (chart 2.2) and by sport (table 2.2) are reported.

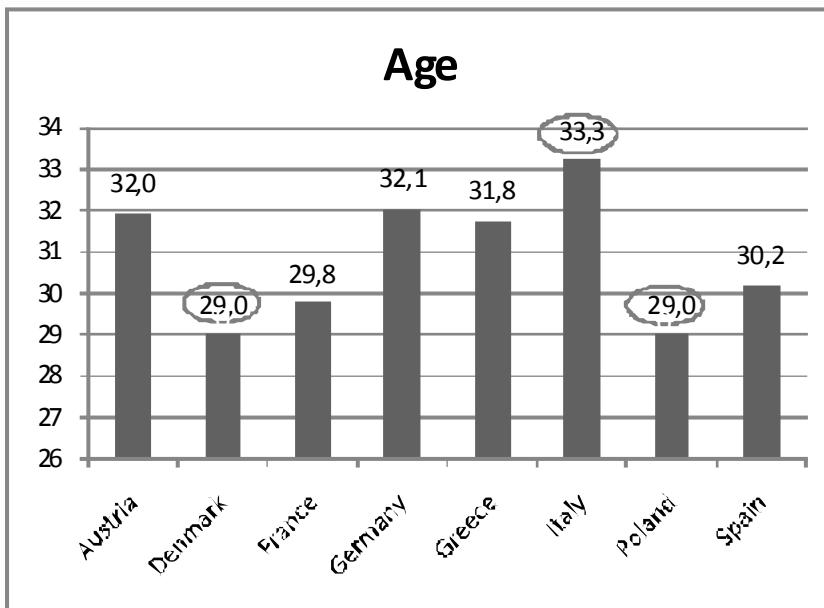


Chart 2.2

The distribution of age presents more differences from average in Denmark and Poland (where the overall average is lower) and in Italy (where the overall average is higher).
 Contrasting the three types of gambling (sports betting, casino, poker) we do not see any significant difference in the gender of subjects. On the contrary, the average age of on-line poker players is significantly lower: 30% of users are in the range from 20 to 24 years old.

	Mean
SPORT	30,2
POKER	28,0
CASINO	31,7

Table 2.2

The cross analysis of gender and age does not provide any statistically significant evidence: distribution of age is therefore independent on gender.

3. ANALYSIS OF THE BEHAVIOUR OF GAMBLERS BY LEVEL OF COMMITMENT

In this paragraph we will analyze the behaviour of gamblers grouping the users of the three types of games by their level of commitment to the game, and describing them according to their frequency distribution and most observed values (modal classes).

3.1.SPORTS BETTING

Sport betting is characterized by a vast majority of low-intensity gamblers and by a small percentage of highly committed on line gamblers. In the analyzed period, around 80% of the sports betting gamblers played less than the average number of bets (210 bets in the 8-months monitoring period). Only 3.9% of the total users placed more than 1,000 bets in the 8 months (see chart 3.1).

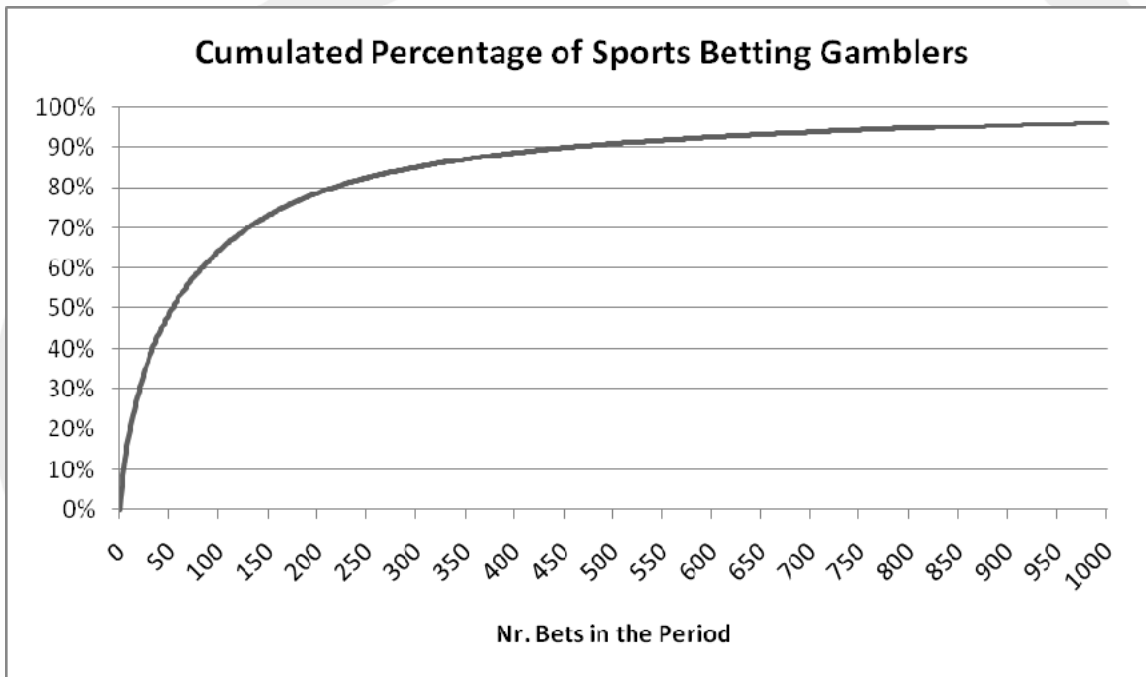


Chart 3.1

57% of users had a betting frequency (number of bets divided by the duration of activity) not higher than 1, meaning that the modal sports gambler did not play more than once in each day of activity. Only 4.1% of users played more than 10 times a day (see chart 3.2).

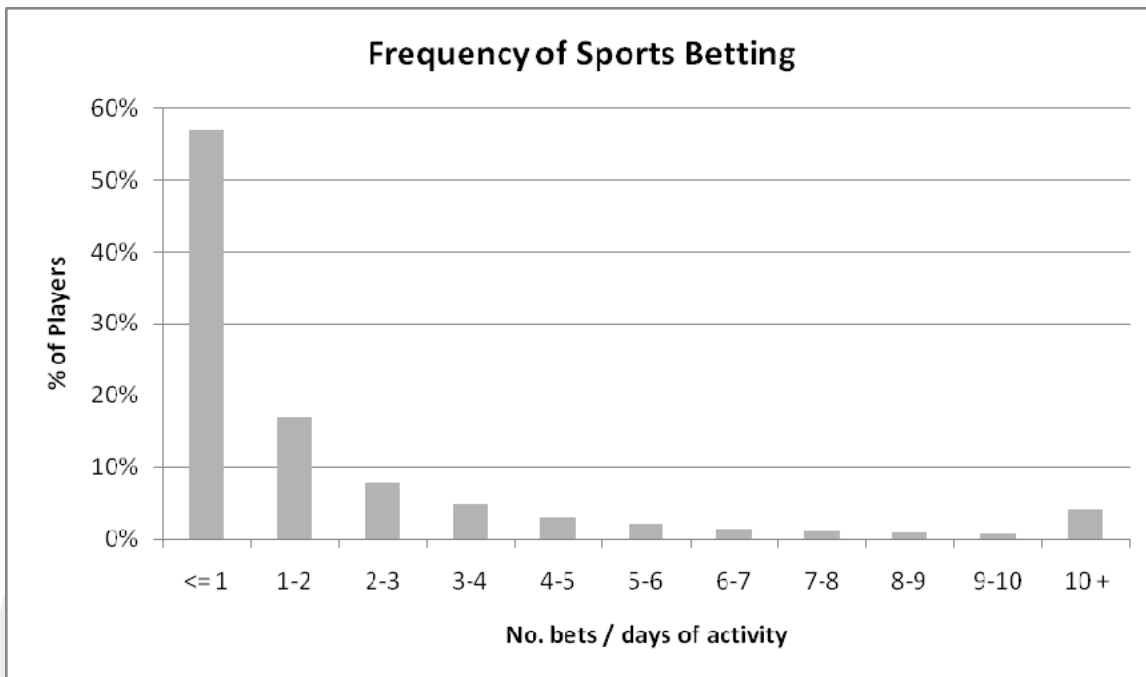


Chart 3.2

In chart 3.3 we see that, while the average value is 11.4 euro per bet, 80% of sports betting gamblers played less than the average stake.

The most observed behaviour of the sports gambler was to stake in each bet an amount ranging from 1 to no more than 2 euro (modal class). 11.8% of the total users had an average stake per bet of more than 20 euro, and among them 4.6% of the total users placed more than 50 euro per bet.

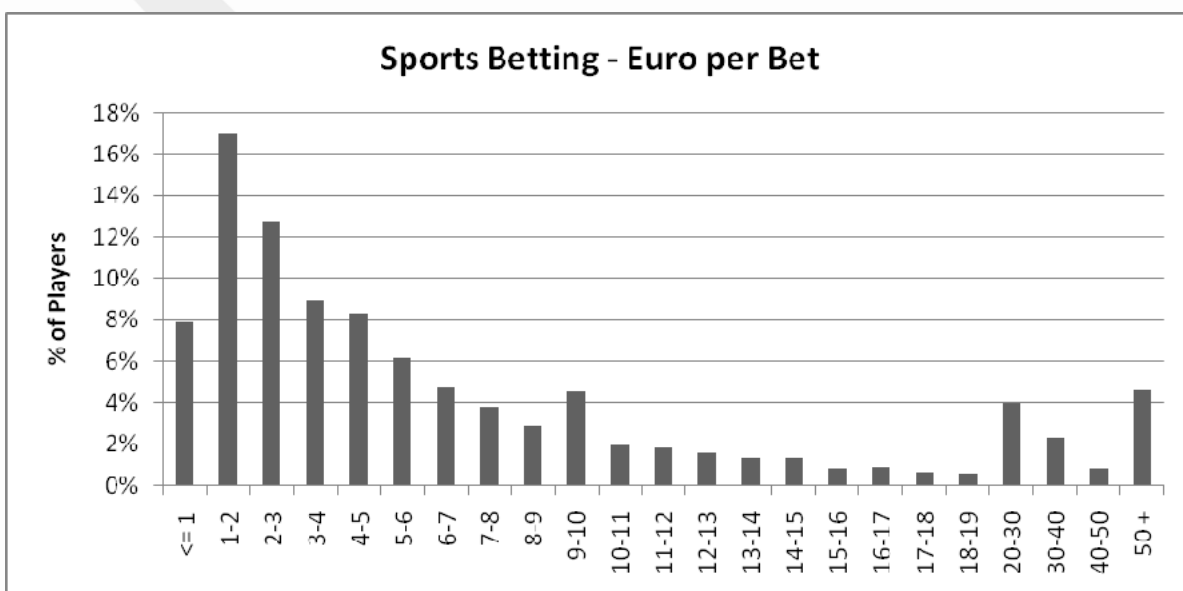


Chart 3.3

We can estimate the gamblers' commitment in sports betting, by calculating for each user the ratio between total stakes in the period and days of activity (duration), normalized up to 28 days (four weeks, which stand for a standard month). As chart 3.4 shows, at the time of the research 51% of the subjects spent less than 100 euro per month. Moreover, the most frequently amount spent in sports betting was less than 25 euro per month (see also chart 3.5).

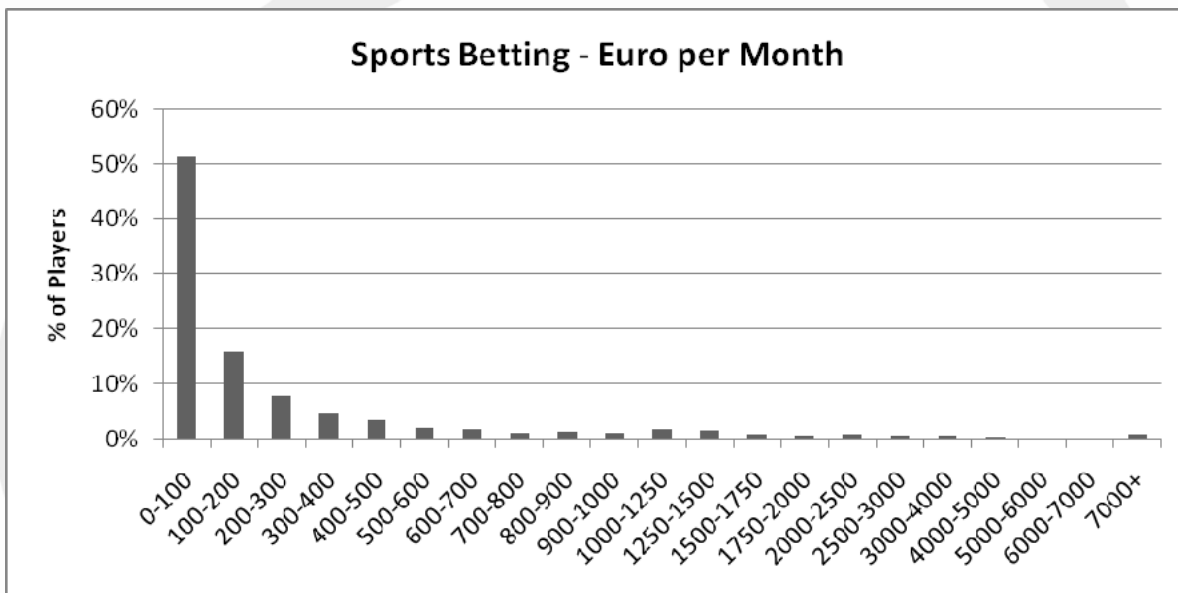


Chart 3.4

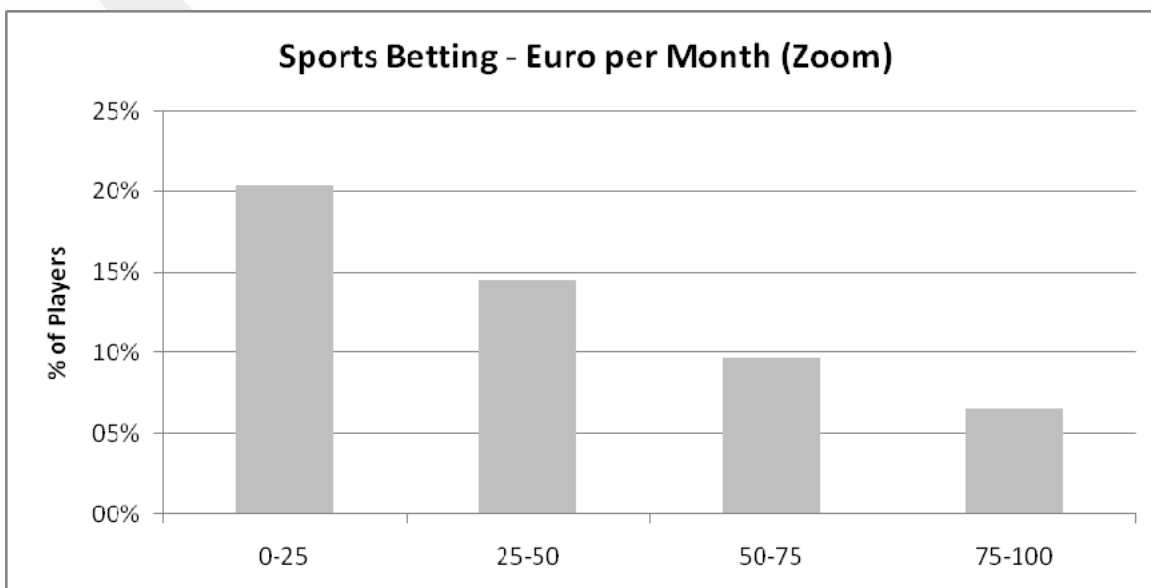


Chart 3.5

3.2. ON-LINE CASINO

On-line casino gamblers in the sample are – in a vast majority – low intensity gamblers, as for sports betting: around 83% of the on-line casino gamblers played less than the average number of bets (about 3,700 in the 25-months monitoring period). Only 8.0% of the total casino users placed more than 10,000 bets in the period (see chart 3.6 with the cumulated percentage of on-line casino users, ordered by number of bets).

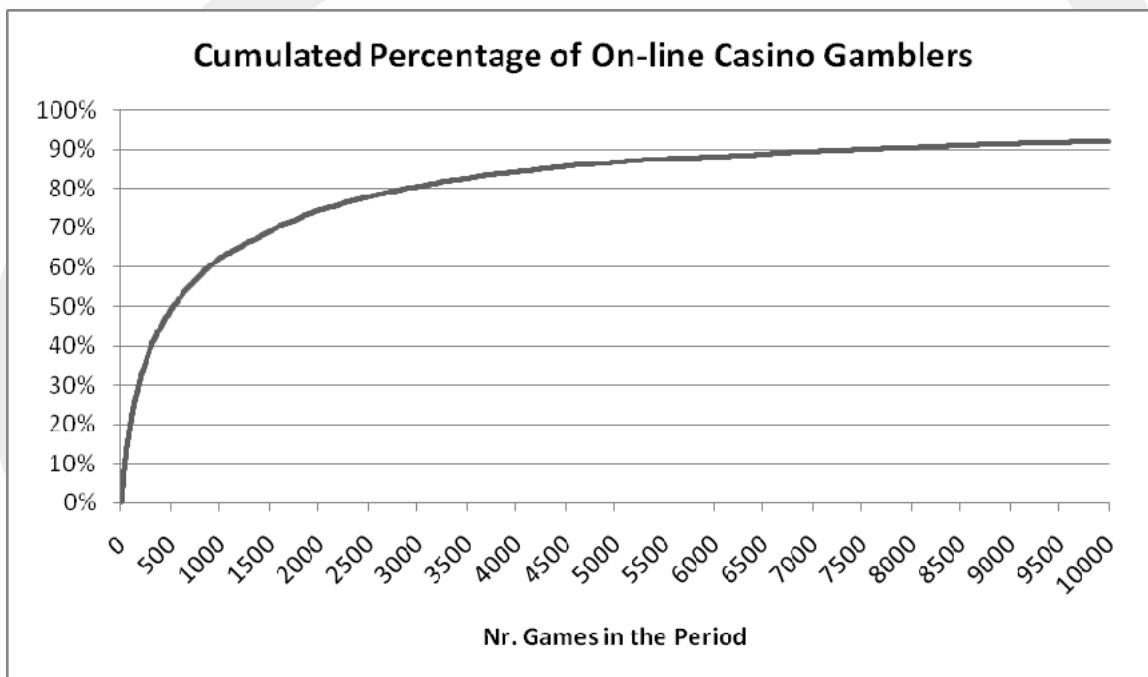


Chart 3.6

32% of users had a gaming frequency (number of active playing days divided by the duration of activity) not higher than 1, meaning that the modal on-line casino gambler did not play more than once in each day of activity (see chart 3.7).

On the other hand, however, 23.9% of users placed bets more than 10 times a day; 11.7% of users placed bets more than 50 times a day, 5.8% more than 100 times a day.

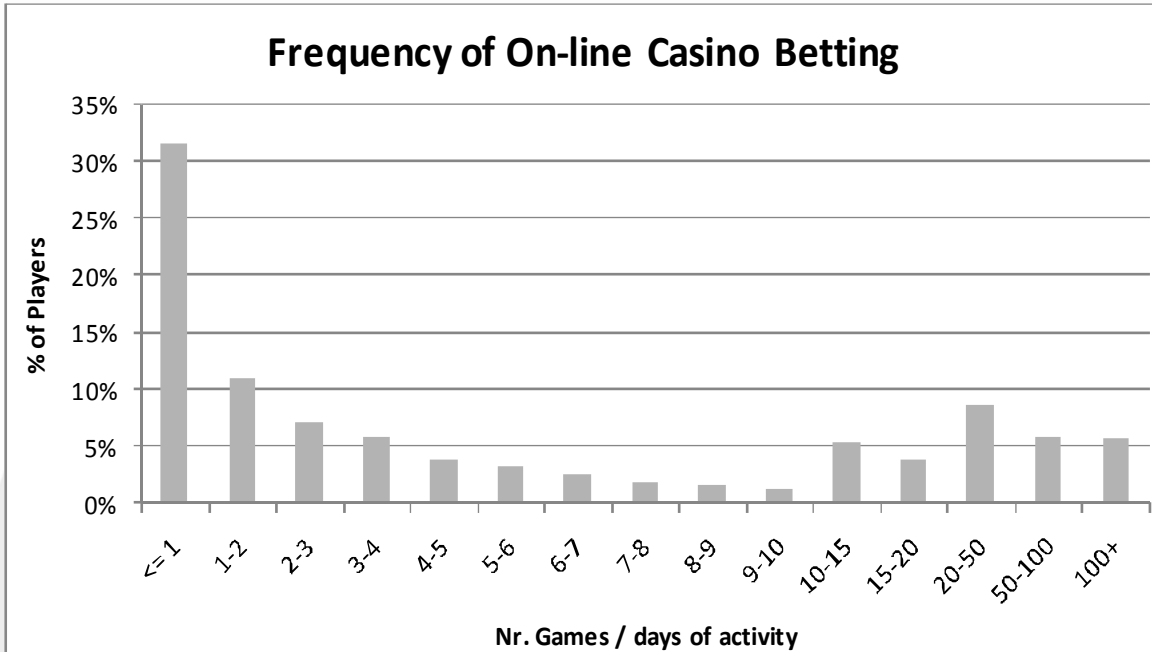


Chart 3.7

More than 67% of on-line casino players had an average stake per game lower than 10 euro. Around 87% of the on-line casino players played less than the average per game stake of 38.2 euro. In fact, the most frequent observed value is between 1 and 2 euro (see charts 3.8 and 3.9). In contrast with this, we noticed among on-line casino users a small percentage (1.1%) of extremely committed players, who staked more than 600 euro per game. They were responsible for 14.4% of the total amount played in the whole period.

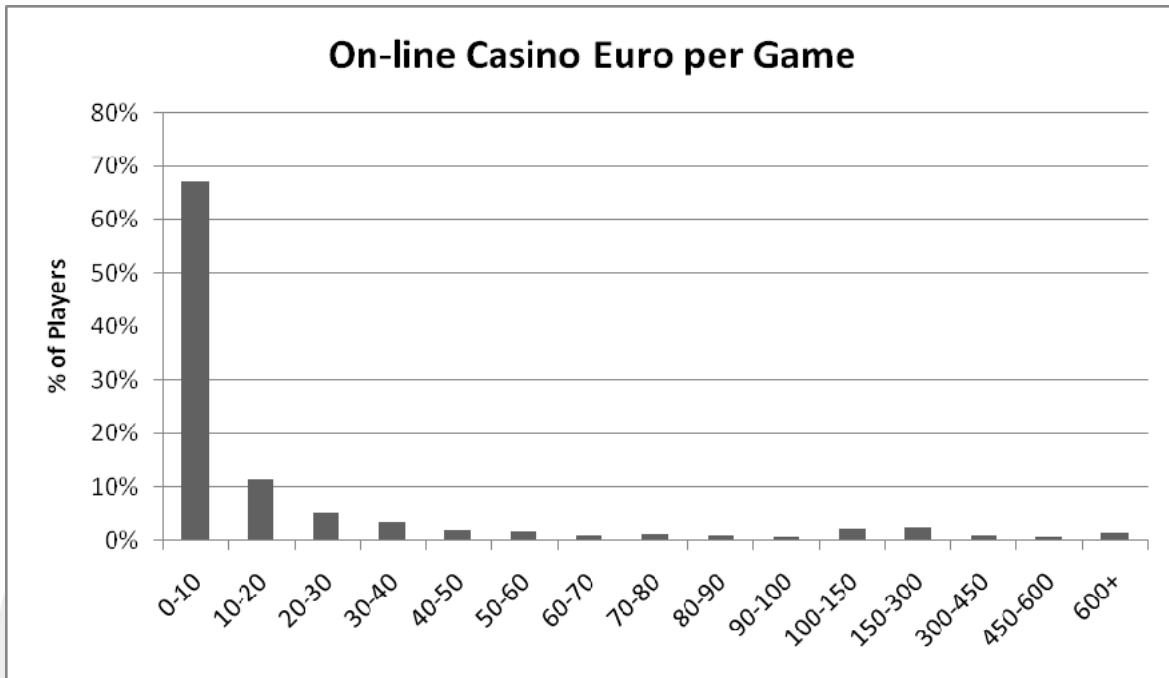


Chart 3.8

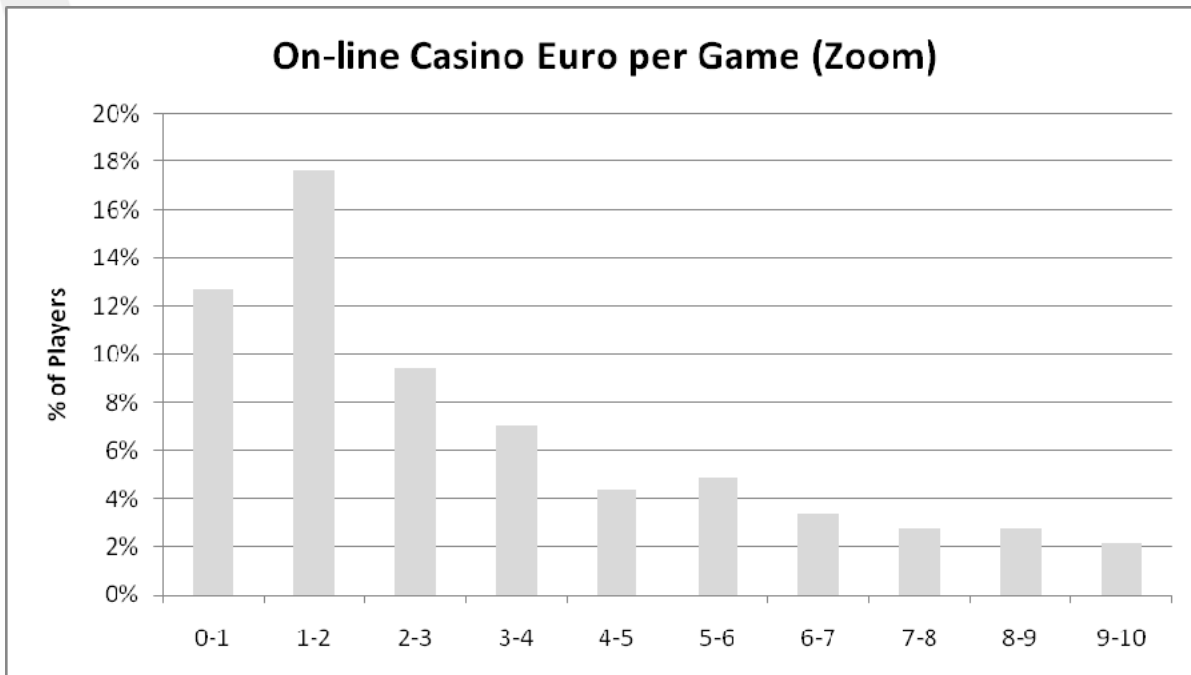


Chart 3.9

The analysis of the on-line casino monthly ratio between total stakes and days of activity (as defined in paragraph 3.1) confirms that the most frequent behaviour is to spend in on-line casinos

a limited amount of money (less than 50 euro per month). Only 5.2 % of the subjects, however, spent more than 20,000 euro per month (see chart 3.10).

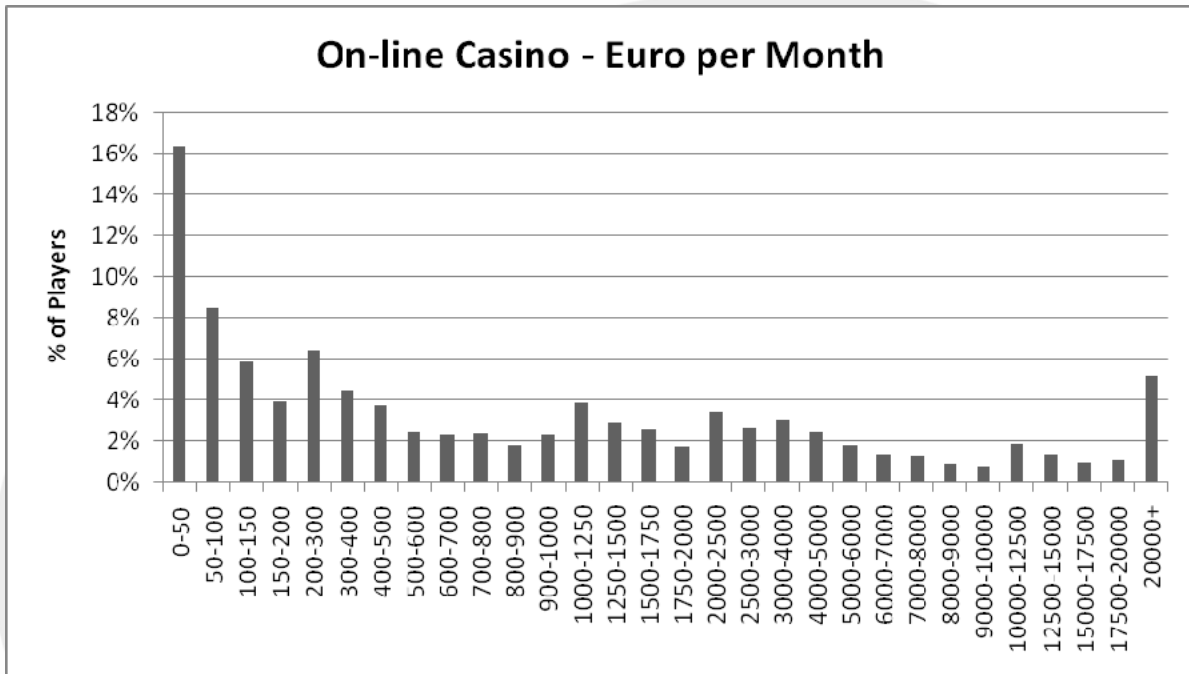


Chart 3.10

3.3. ON-LINE POKER

The analysis of the degree of cumulated percentage of on-line poker players by commitment shows that 74% of the on-line poker players played less than the average number of sessions (210 in the 25-months monitoring period). Only 4.2% of the total on-line poker users played more than 1,000 sessions in the period (see chart 3.11).

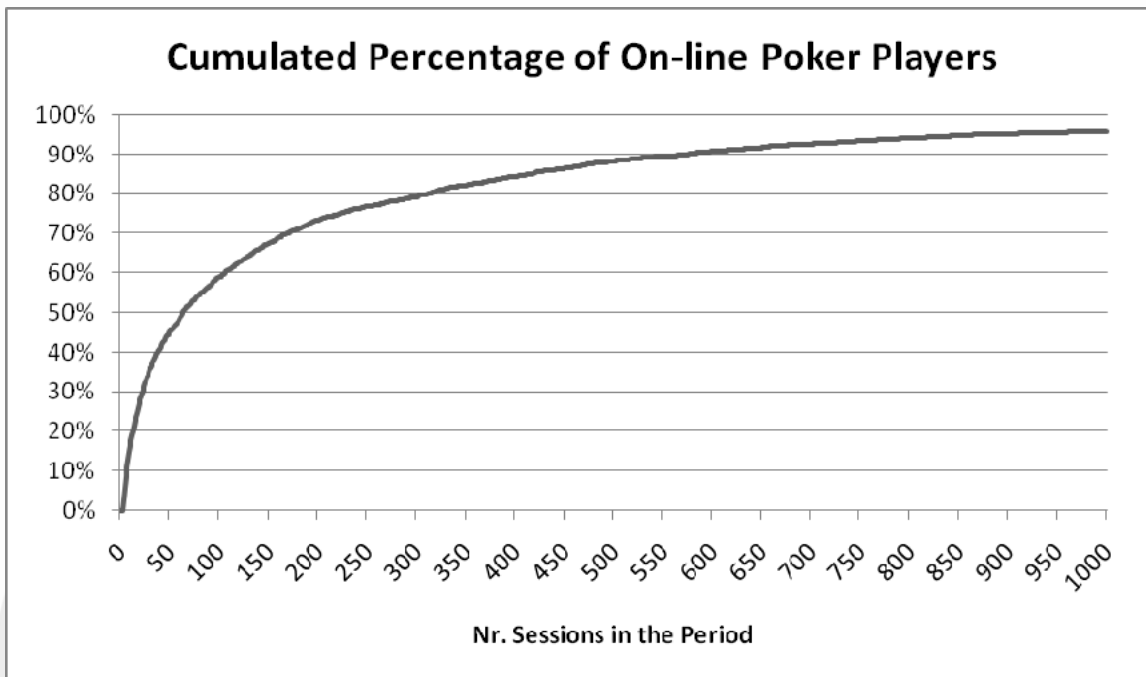


Chart 3.11

More than 75% of on-line poker players wagered less than 30 euro per session, while the average per value session is 30.7 euro (see chart 3.12).

The most observed behaviour of on-line poker gamblers was to stake in each session an amount ranging from 5 to no more than 10 euro (modal class). 13.4% of the total users had an average stake of more than 50 euro per session, and among them only 5.4% of the total users placed more than 100 euro per session.

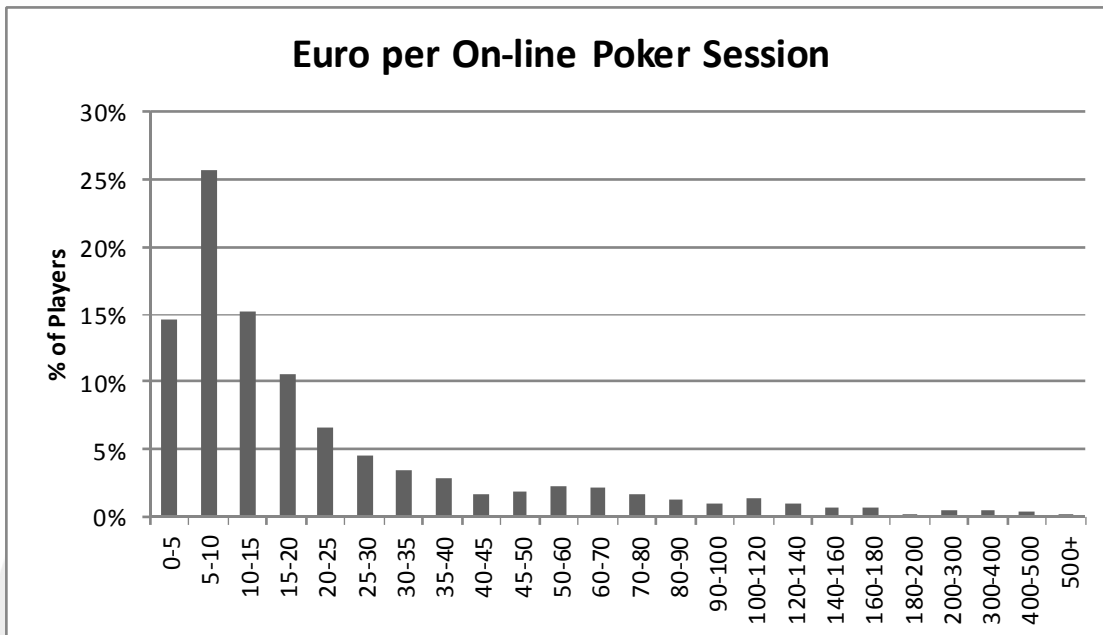


Chart 3.12

The analysis of on-line poker monthly ratio between wagered sums and days of activity (as defined in paragraph 3.1) confirms that the most frequent behaviour is to spend in on-line poker a limited amount of money: less than 25 euro per month. Only 3.2 % of the subjects spent more than 30,000 euro per month (see charts 3.13 and 3.14).

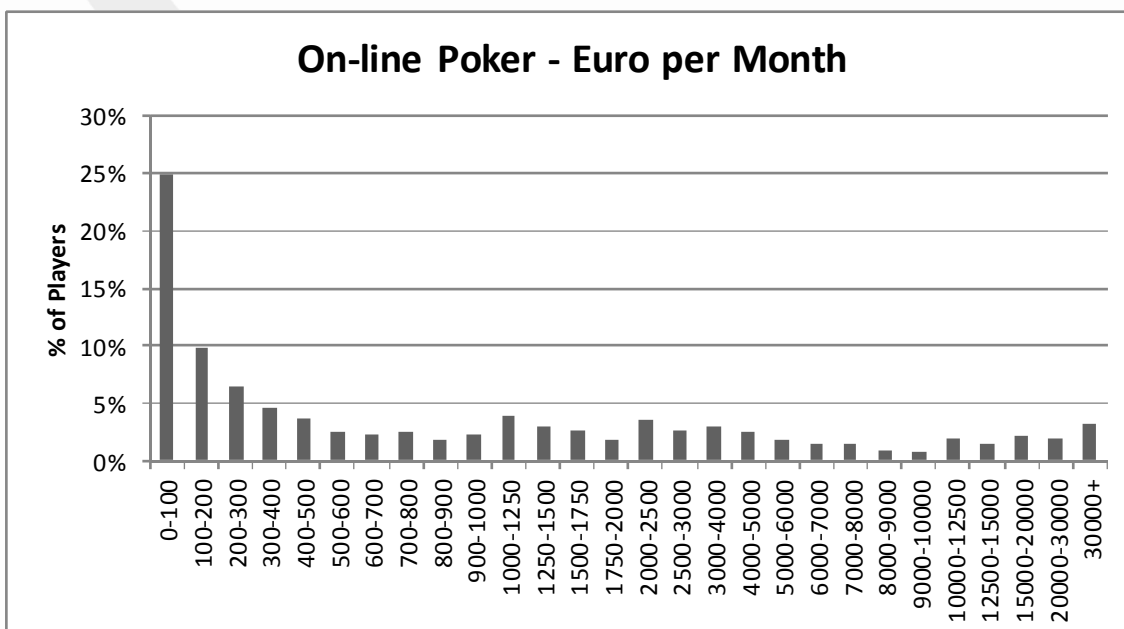


Chart 3.13

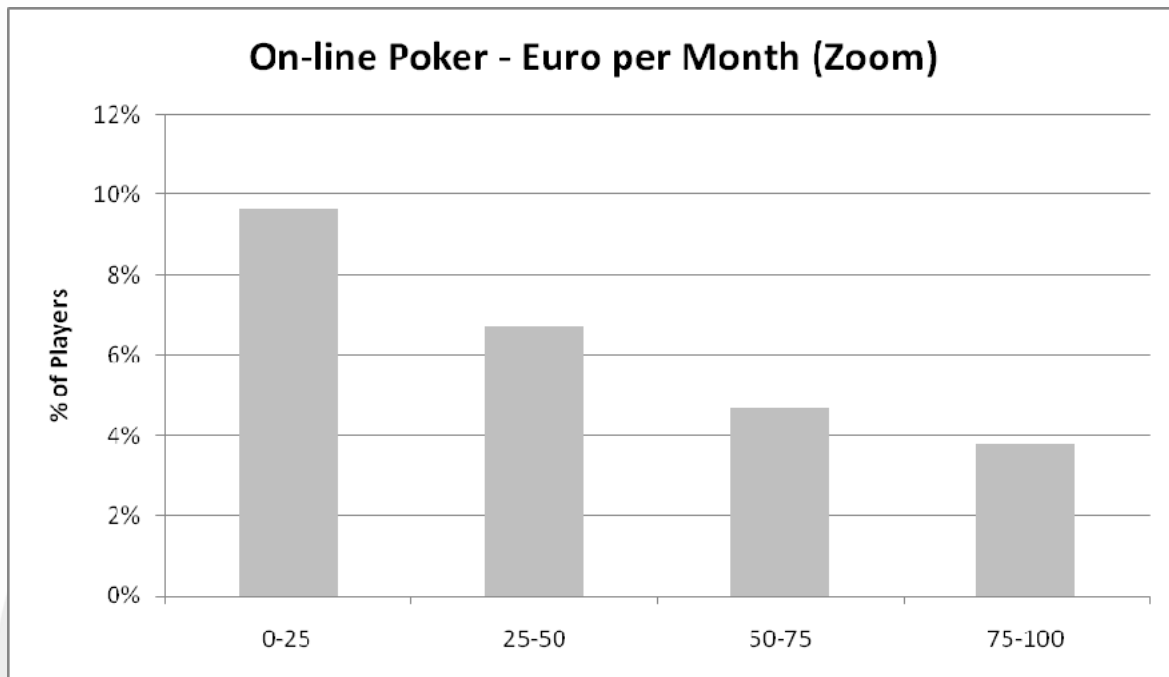


Chart 3.14

4. ANALYSIS OF THE BEHAVIOUR OF THE MEDIAN GAMBLER

In this section we will look at the median behaviour of on-line gamblers in the sample, for each of the three types of analyzed games. All statistics presented in this section are calculated by user. Median values are lower than mean values, on a regular basis; this is due to the presence in the set of analyzed subjects of some overcommitted players, whose behaviour was already discussed in the former paragraphs.

In the following charts we will show and discuss median values, which are closer to the typical behaviour of the population.

4.1.SPORTS BETTING

In table 4.1 we see the summary of the main variables which describe the average and median behaviour of internet sports betting gamblers over the eight analyzed countries, at the time of the research.

	No. Bets	Stakes (€)	No. Days w Bets	Duration	% Activity	No. Bets per Day	Euro per Bet	Euro per Month	Gambling Loss
MEAN	210,7	1.541,0	27,0	120,6	0,36	5,9	11,4	559,4	158,2
STD	682,1	8.407,3	32,6	89,3	0,31	11,3	29,5	2.212,3	852,5
MEDIAN	53,0	205,5	15,0	127,0	0,25	3,2	4,5	99,6	44,4

Table 4.1

The median gambler placed 53 bets in the eight months period. The number of days when he/she played was 15, and the duration of his/her activity period (i. e. the number of days from the first to the last bet) was 127 days (around half of the analyzed period). The percentage of activity, calculated as the number of active playing days divided by the duration of activity of each single gambler, was 0.25 (meaning the he/she played in 25% of the days of his/her activity period). We measured around three bets per day, with a median value of 4.5 euro per bet. We calculated the sum spent by each user in a standard month (4 weeks, 28 days) dividing the total amount put on stake by the days of activity (duration) and then multiplying by 28. This variable allow reading a median monthly commitment of about 100 € in sports betting.

The gambling loss was calculated subtracting the winnings from the total stakes, for each user.

The number of bets was higher in male players than in female players (213 vs. 180) and highest in the middle age intervals (see chart 4.1).

Greece is the EU country with the highest number of bets (see chart 4.2).

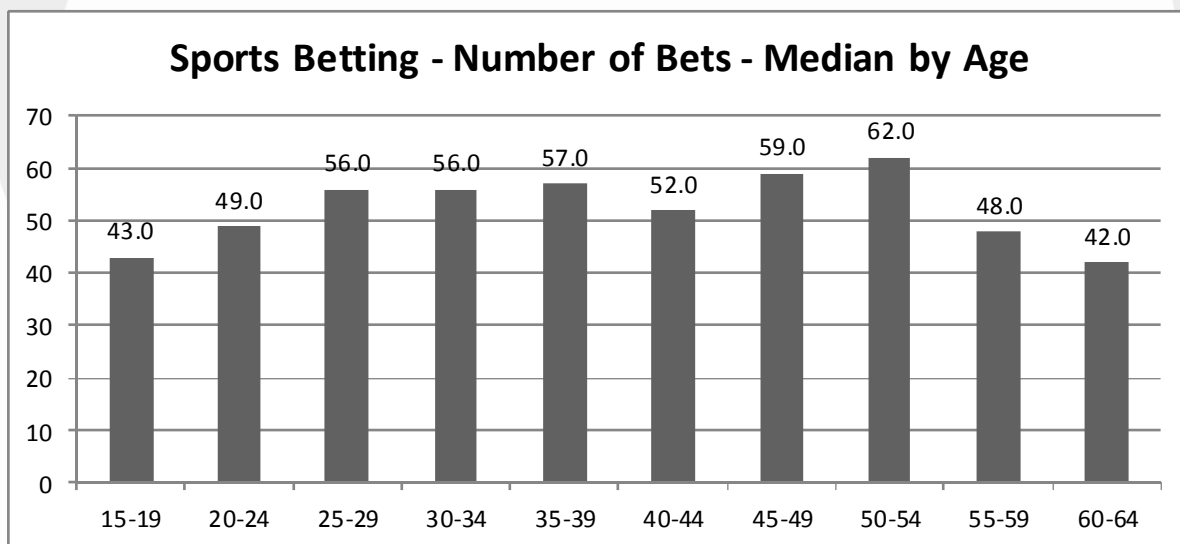


Chart 4.1

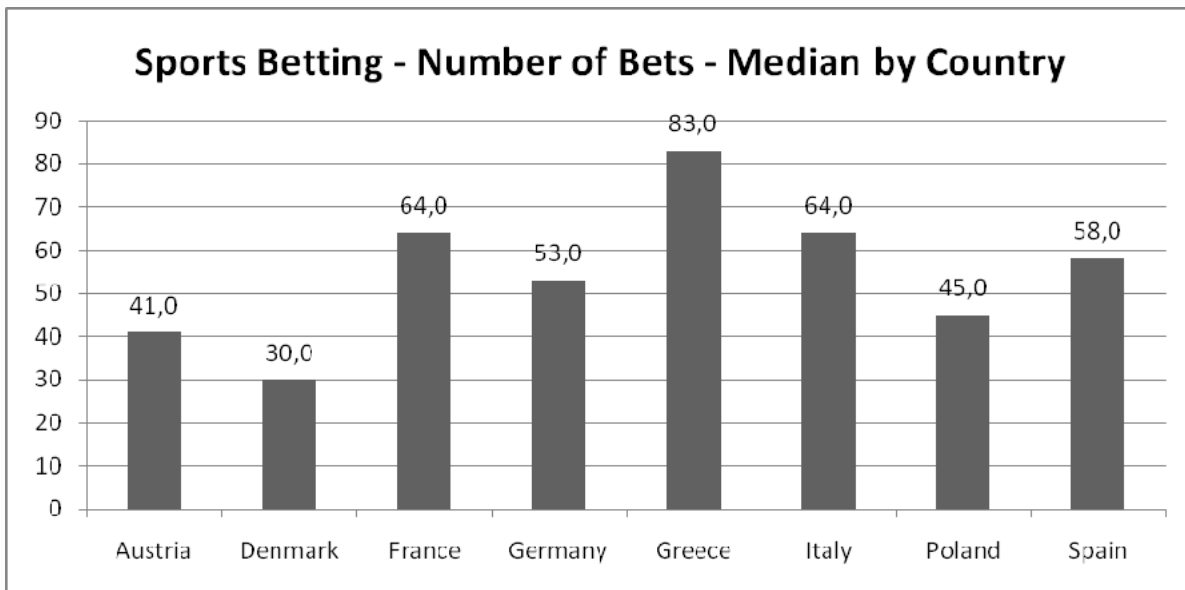


Chart 4.2

The median amount put monthly on stake was higher for female than for male gamblers (141 € vs. 97 € respectively) and highest in the older age intervals (see chart 4.3).

In Greece, each sports betting gambler put on stake a median amount of 301€ per month, almost three times the overall benchmark (see chart 4.4).

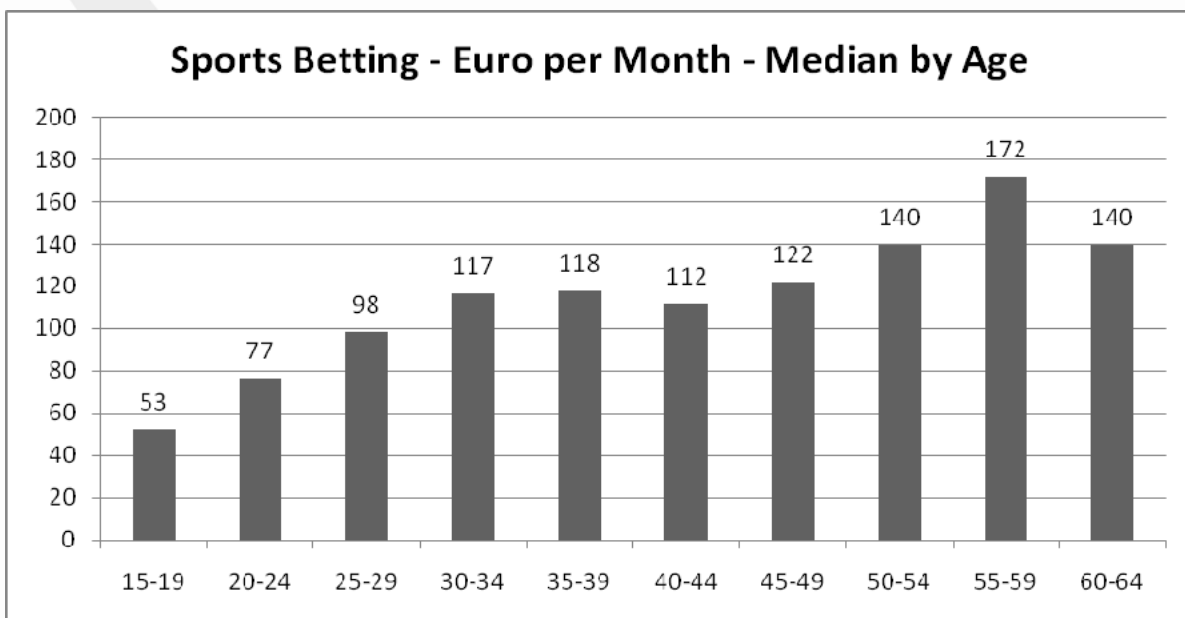


Chart 4.3

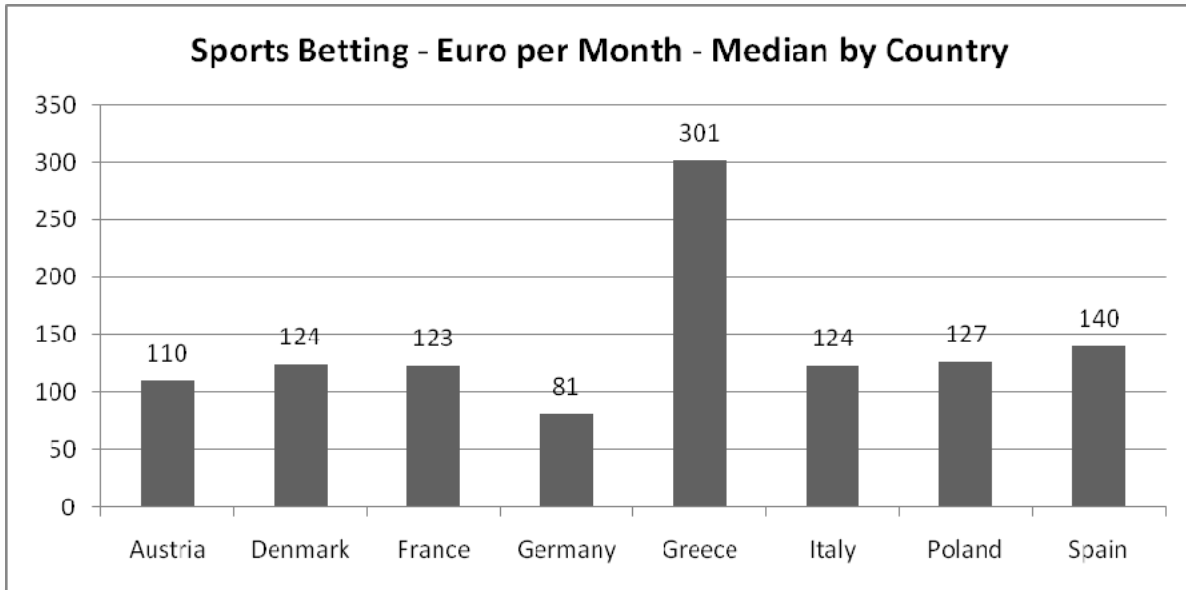


Chart 4.4

The *number of days with bets* and the *duration* were higher for male than for female players (16 days vs. 11 days and 134 days vs. 58 days, respectively). We did not measure a statistically significant difference among age intervals (see charts 4.5 and 4.7), but we see a light prevalence of middle age users.

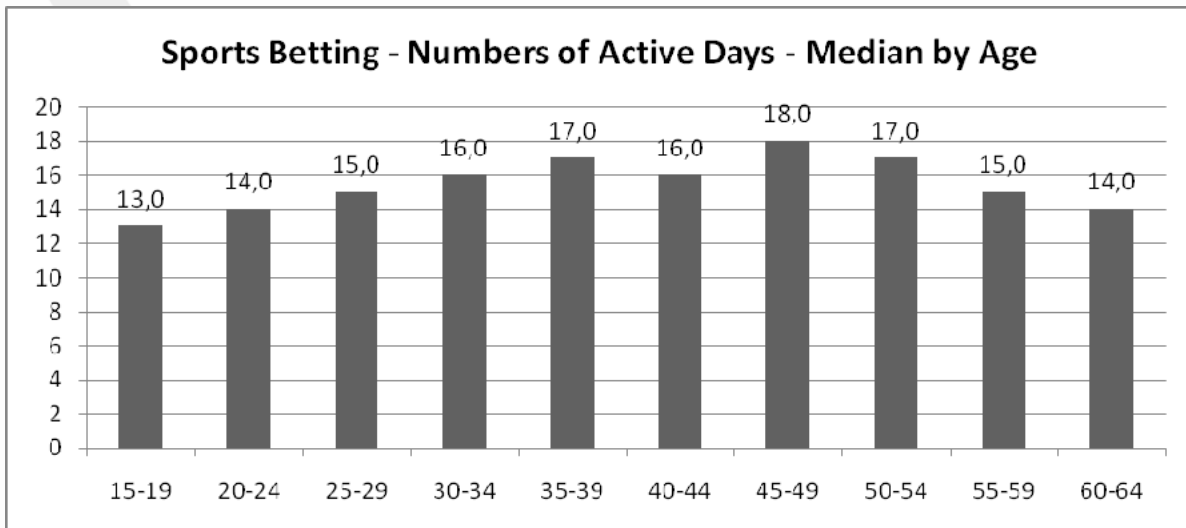


Chart 4.5

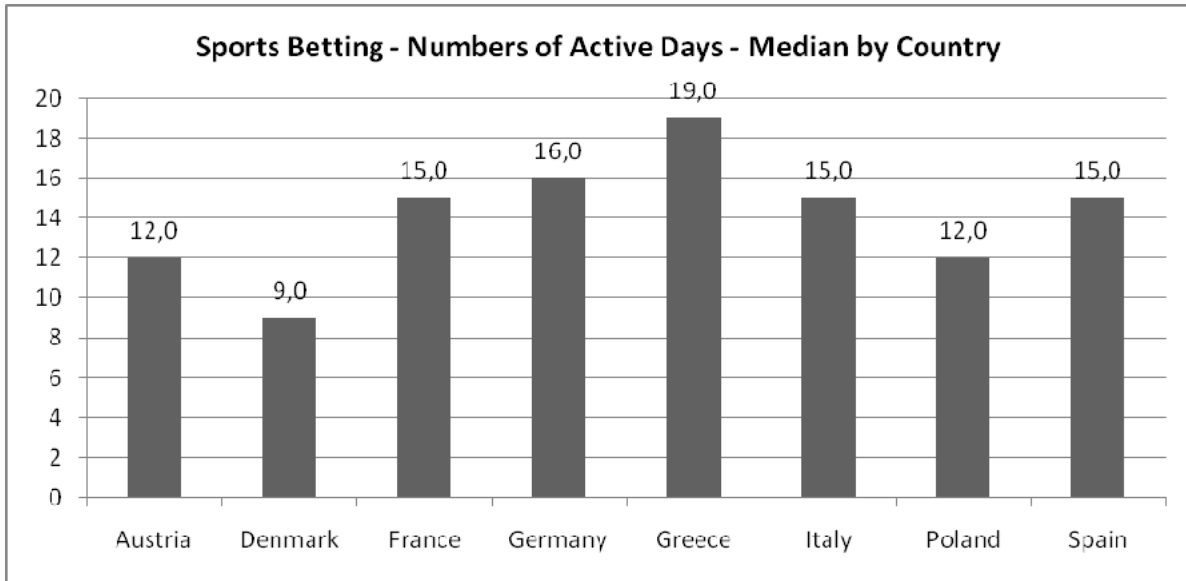


Chart 4.6

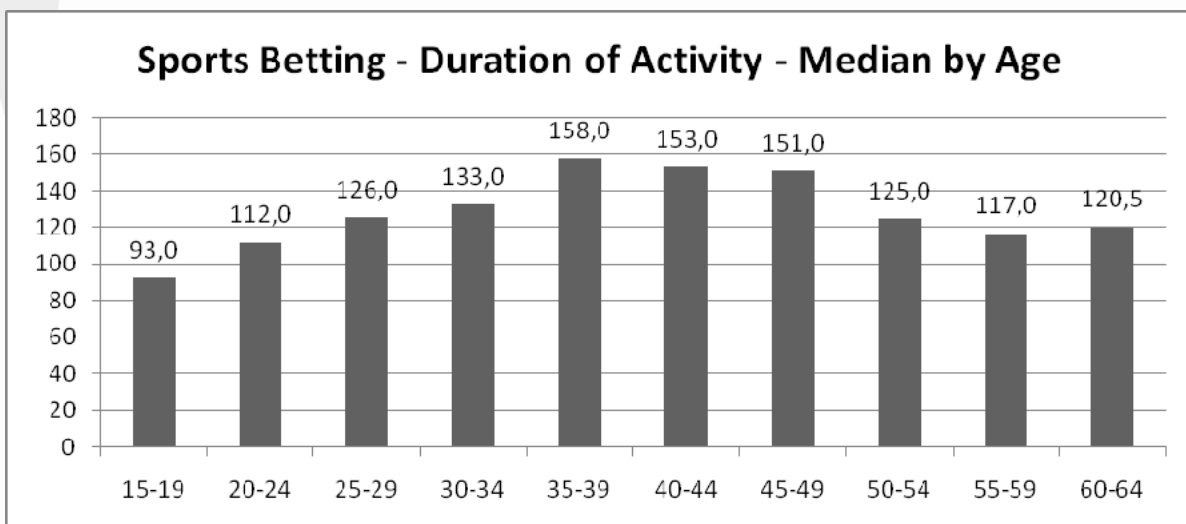


Chart 4.7

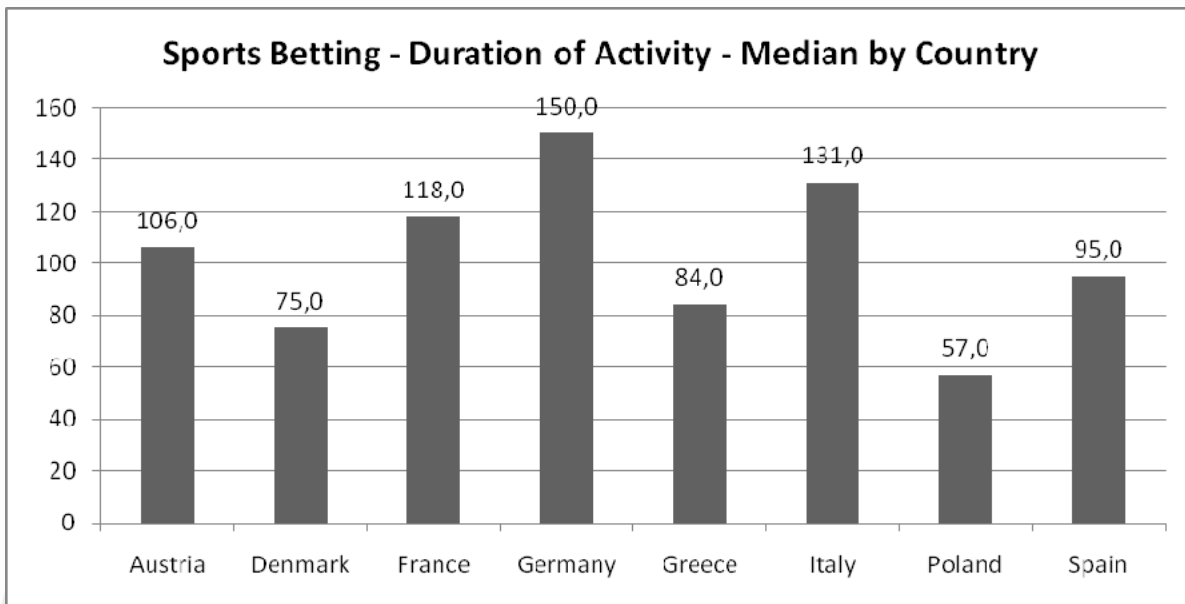


Chart 4.8

The frequency of bets, i.e. the number of active playing days divided by the duration of activity of each single gambler, is higher in female players (0.24 for male players vs. 0.35 for female players). The frequency is almost steady over age, with a slight increase in older players (see chart 4.9).

Poland and Greece were the countries with the highest frequency of bets (see chart 4.10).

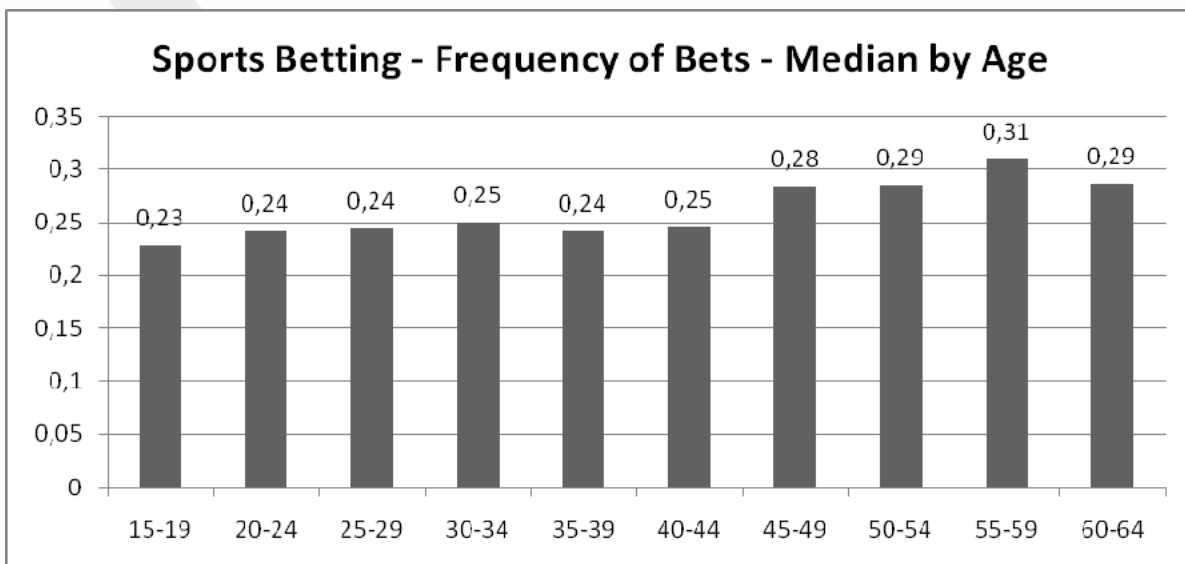


Chart 4.9

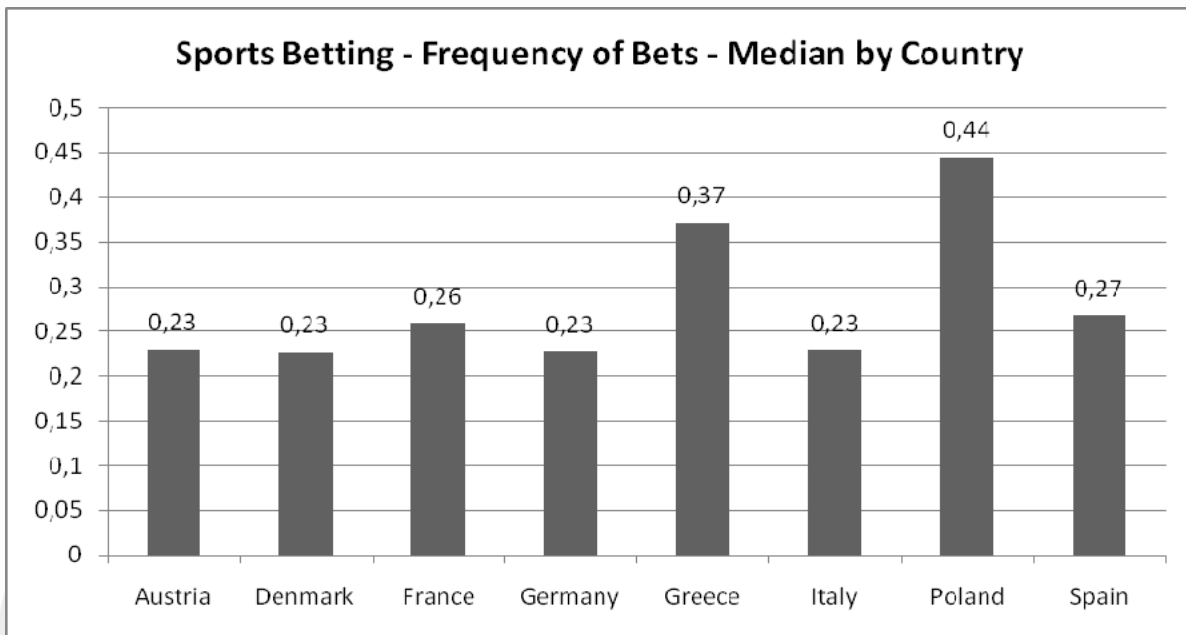


Chart 4.10

The *number of bets per day* is higher for female players (3.4) than for male players (3.2). We do not find a statistically significant difference among age interval for this variable (see Chart 4.11). Greece showed the highest number of bets per day.

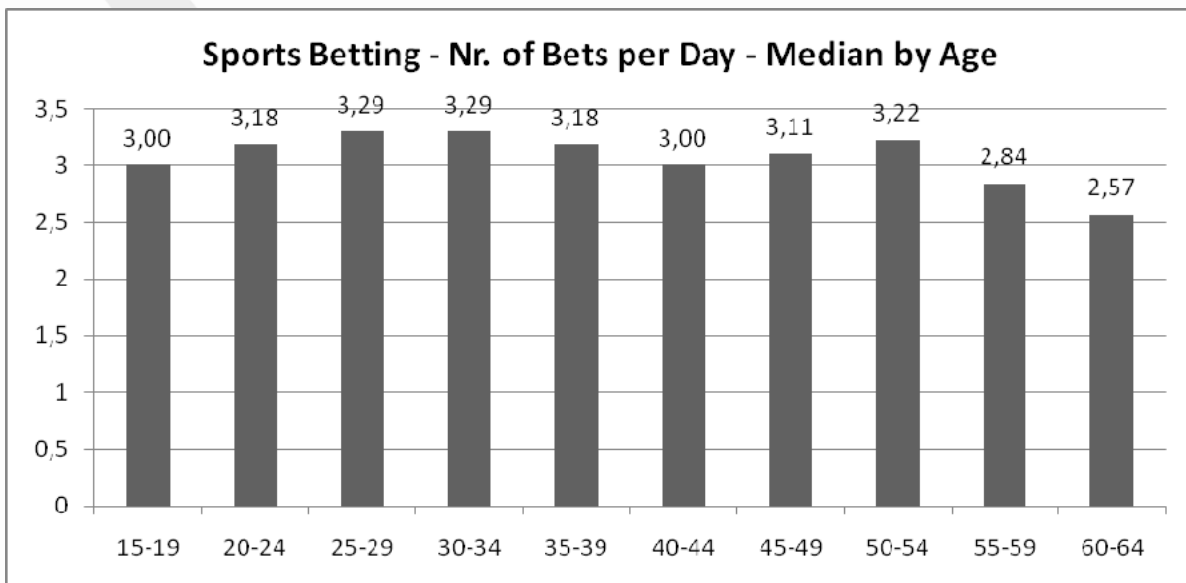


Chart 4.11

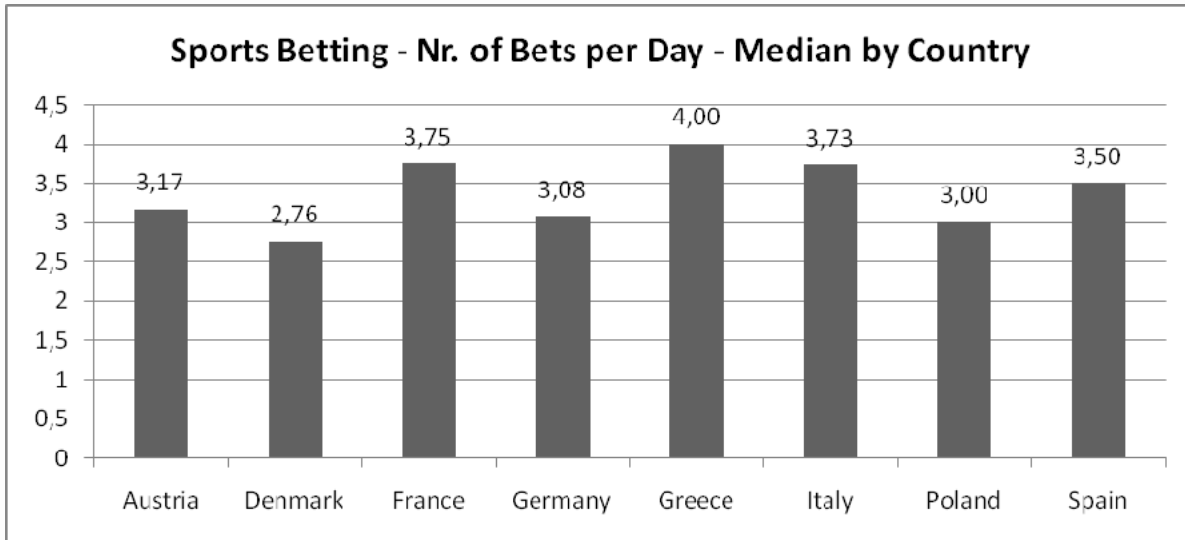


Chart 4.12

4.2. ON-LINE CASINO

In table 4.2 we analyze the average and median behaviour of on-line casino gamblers over the eight EU countries in the sample, at the time of the research².

	No. Bets	Stakes (€)	No. Days w Bets	Duration	% Activity	No. Bets per Day	Euro per Bet	Euro per Month	Gambling Loss
MEAN	3.668,5	28.964,3	24,5	303,2	0,16	117,8	38,1	5.047,4	887,1
STD	12.478,4	114.985,1	40,0	237,4	0,21	196,0	199,3	21.413,4	3.162,2
MEDIAN	521,0	2.796,3	11,0	267,0	0,08	46,3	4,7	518,4	125,5

Table 4.2

As we are dealing with a 25-month time series, we excluded from the analysis all gamblers with less than four days of activity, considering them as occasional gamblers.

The median gambler played 521 casino games in the 25 month period. The number of days when he/she played was 11, and the duration of his/her activity period (i. e. the number of days from the first to the last bet) was 267 days (about one third of the analyzed period). The percentage of activity, calculated as the number of active playing days divided by the duration of activity of each single gambler, was 0.08 (meaning the he/she played in the 8% of the days of his/her activity period).

We measured around 46 casino games per day, with a median value per game of about 5 euro. We calculated the sum spent by each user in a standard month (28 days) dividing the total amount

² A single anomalous subject with inconsistent data was excluded from the calculation of statistics in this and the following paragraphs.

put on stake by the days of activity (duration) and then multiplying by 28. The estimate of monthly commitment is about 520 € in on-line casino.

The gambling loss was calculated subtracting the winnings from the total stake for each user.

The behaviour of on-line casino gamblers proves to be much different from sports betting, with many games played per day, concentrated in a reduced number of days dedicated to gambling.

The median number of games played was higher for female players (789) than for male players (508) and was highest in the middle age intervals (see chart 4.13).

Again, Greece is the country with the highest median number of games played.

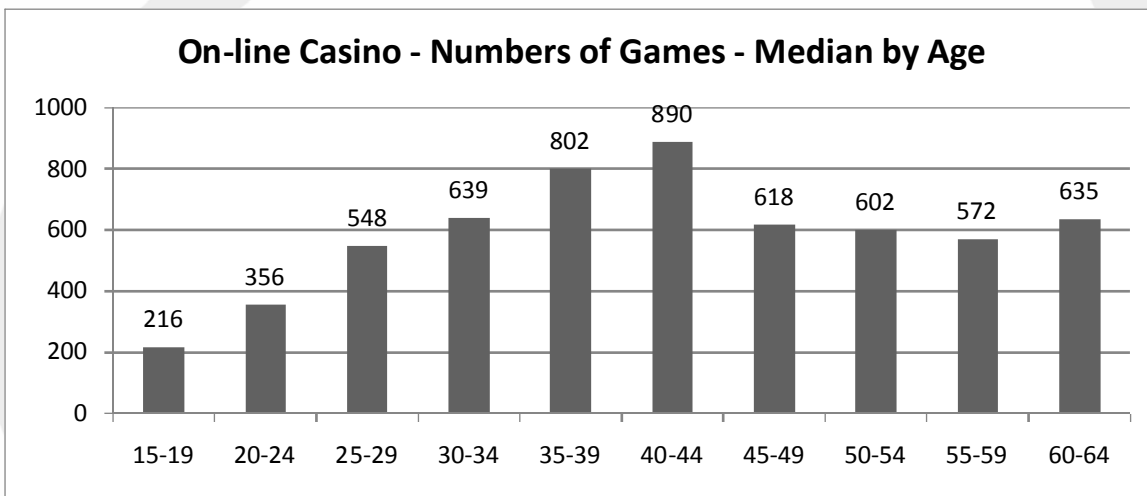


Chart 4.13

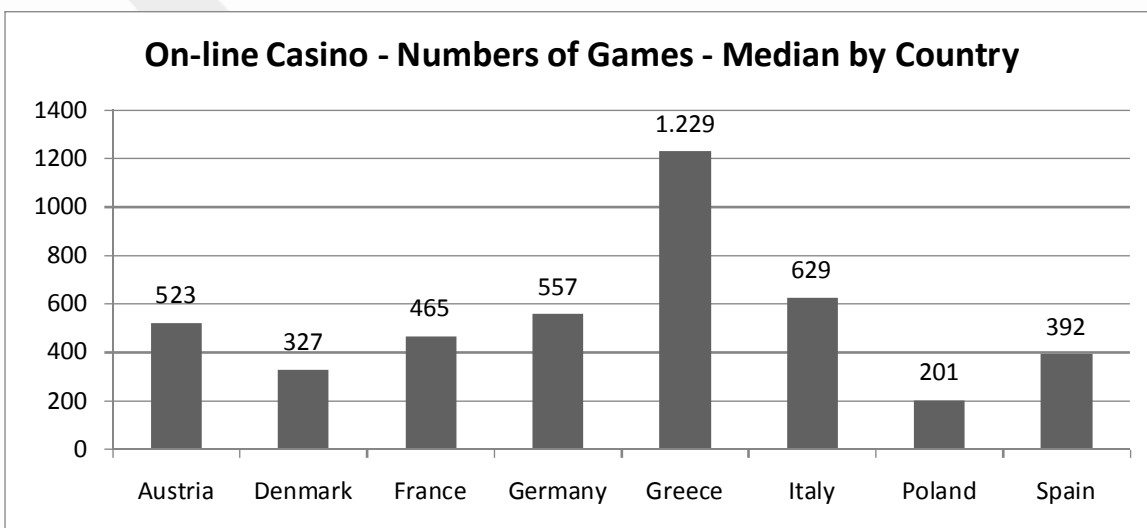


Chart 4.14

The monthly amount put on stake is higher in female than in male gamblers (635 € vs. 516 €, respectively); it is highest in the older age intervals (see chart 4.15).

In Greece, each on-line casino gambler put on stake more than 1,000 € per month (see chart 4.16).

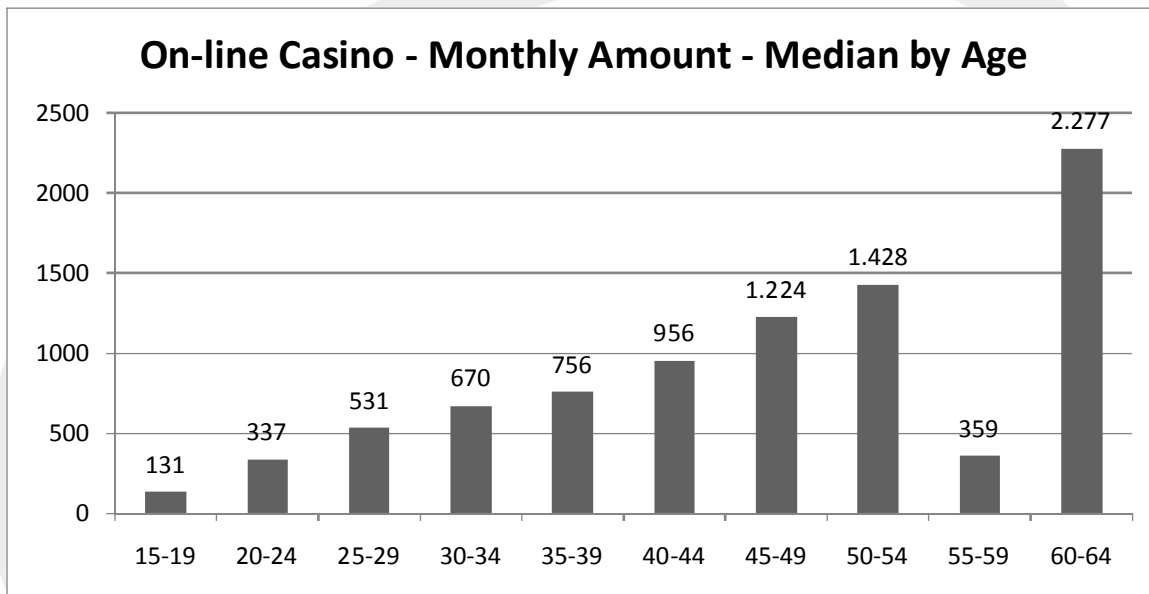


Chart 4.15

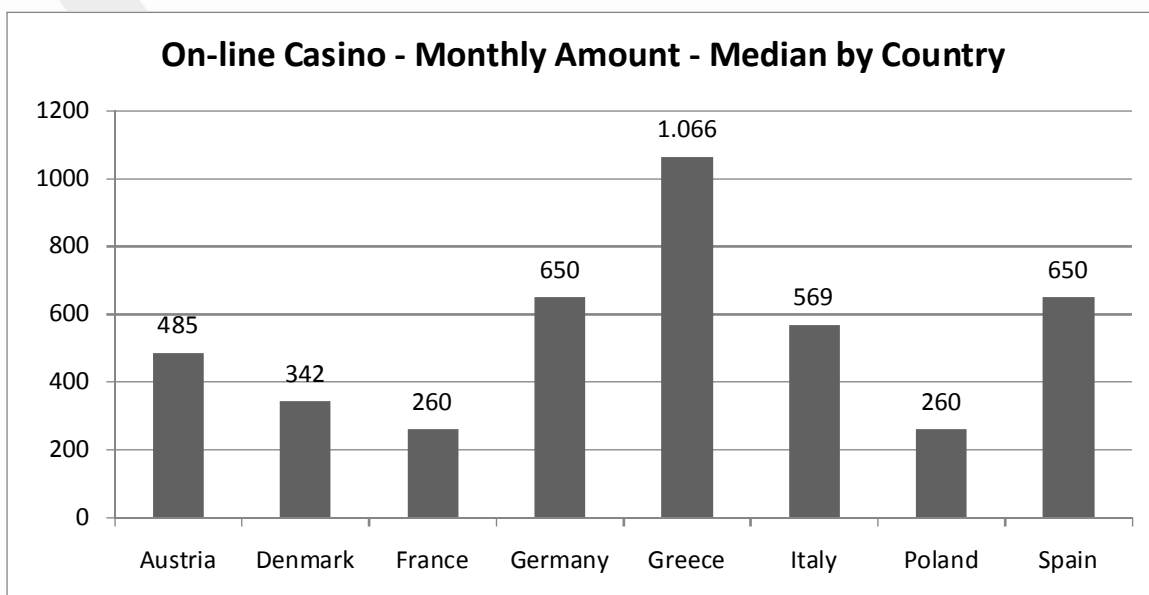


Chart 4.16

4.3. ON-LINE POKER

In table 4.3 we provide the summary of the main variables which describe the average and median behaviour of on-line poker players over the eight analyzed countries, at the time of the research.

	No. Sessions	Tot. Wagered (€)	Duration	Wagered per Session	Euro per month	Gambling Loss
MEAN	209,6	8.026,2	267,2	30,7	944,6	643,2
STD	386,8	39.862,3	231,4	81,8	3.616,1	3.237,0
MEDIAN	64,0	856,9	199,0	12,9	207,9	115,4

Table 4.3

As we are dealing with a 25-month time series, we excluded from the analysis all poker players with less than four sessions, considering them as occasional players.

Differently from the other types of gambling, the basic unit measure in poker is a session: this means that the user plays in one or more on-line poker tables, betting many times. We do not differentiate among the single hands.

The median poker player connected 64 times in the analyzed 25-month period. The duration of his/her activity period (i. e. the number of days from the first to the last session) was 199 days (about one third of the analyzed period). We measured a median value of about 13 euro per session. We calculated the sum spent by each user in a standard month (28 days) dividing the total amount put on stake by the days of activity (duration) and then multiplying by 28. The monthly amount spent commitment is about 208 € in on-line poker.

The gambling loss was calculated subtracting the winnings from the total stakes, for each user.

Daily information is not available for on-line poker: therefore, we could not extend to this game some of the descriptive analyses we carried out for the other types of on-line gambling.

The median number of sessions was higher for male players (64) than for female players (53) and was highest in the age interval between 40 and 44 (see Chart 4.17). Age intervals over 55 have too few subjects for on-line poker and have not been visualized.

Austria, France, and Germany were the countries with the highest number of sessions (see chart 4.18).

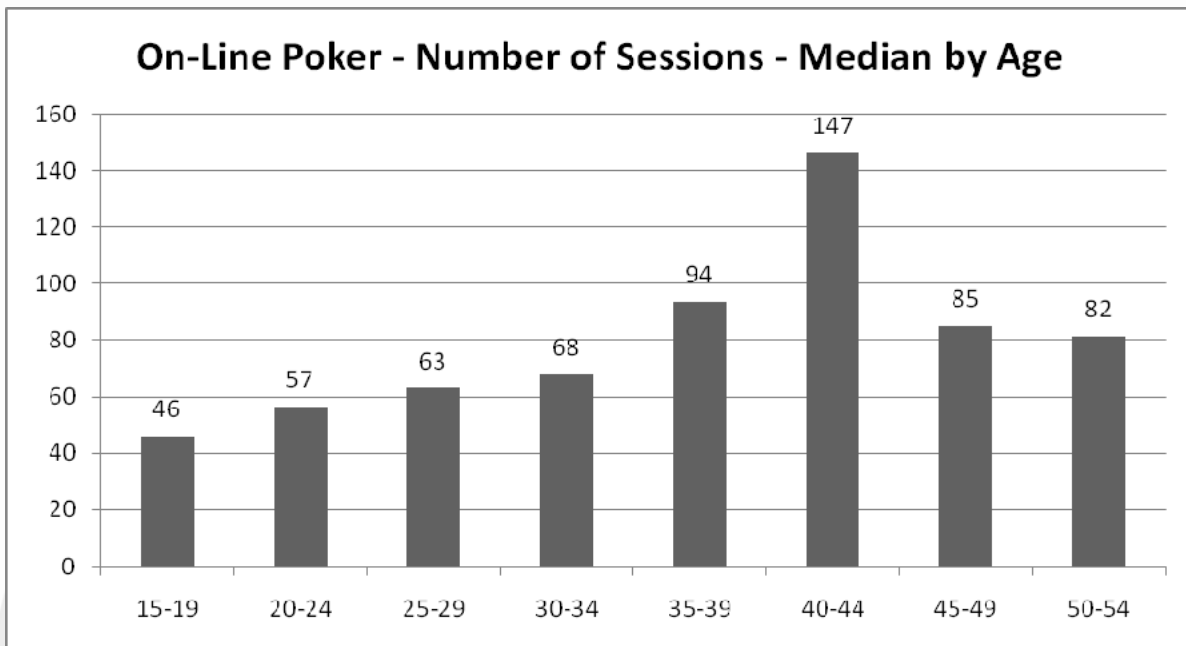


Chart 4.17

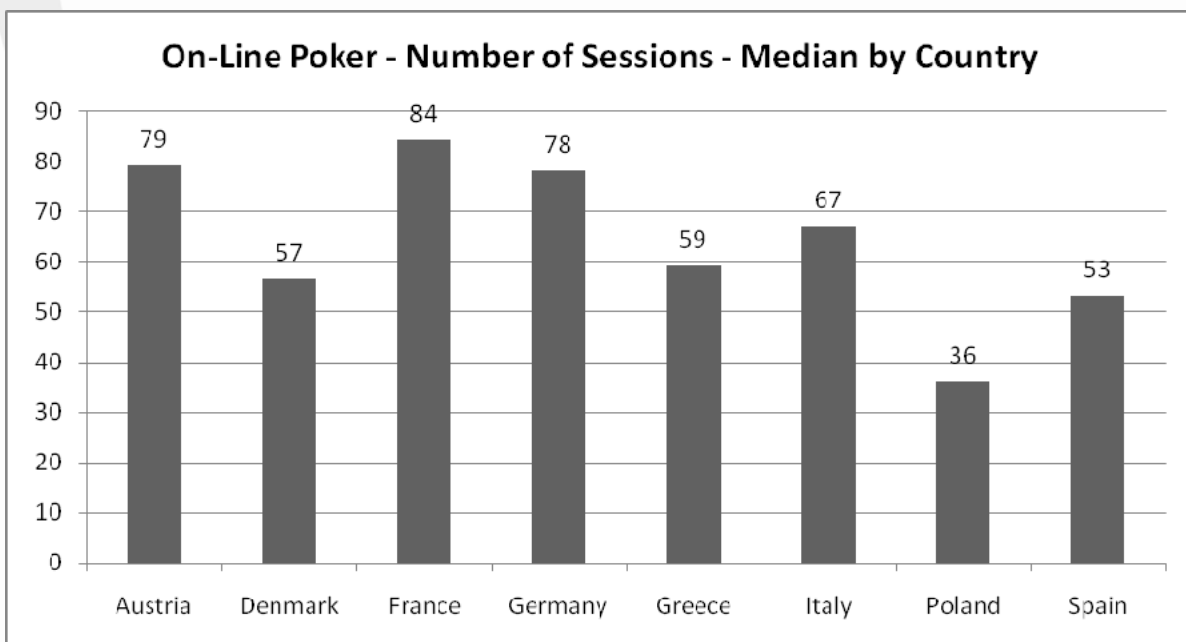


Chart 4.18

The amount of money wagered monthly is higher for female than for male players (234 € vs. 204 €); it is highest in the older age intervals (see chart 4.19).

Greece and Italy were the countries where the median wagered sum was highest, with more than 300€ spent per month. Poland (which also has the lowest number of sessions per user) has the lowest monthly per-capita spend (around 120 € - see chart 4.20).

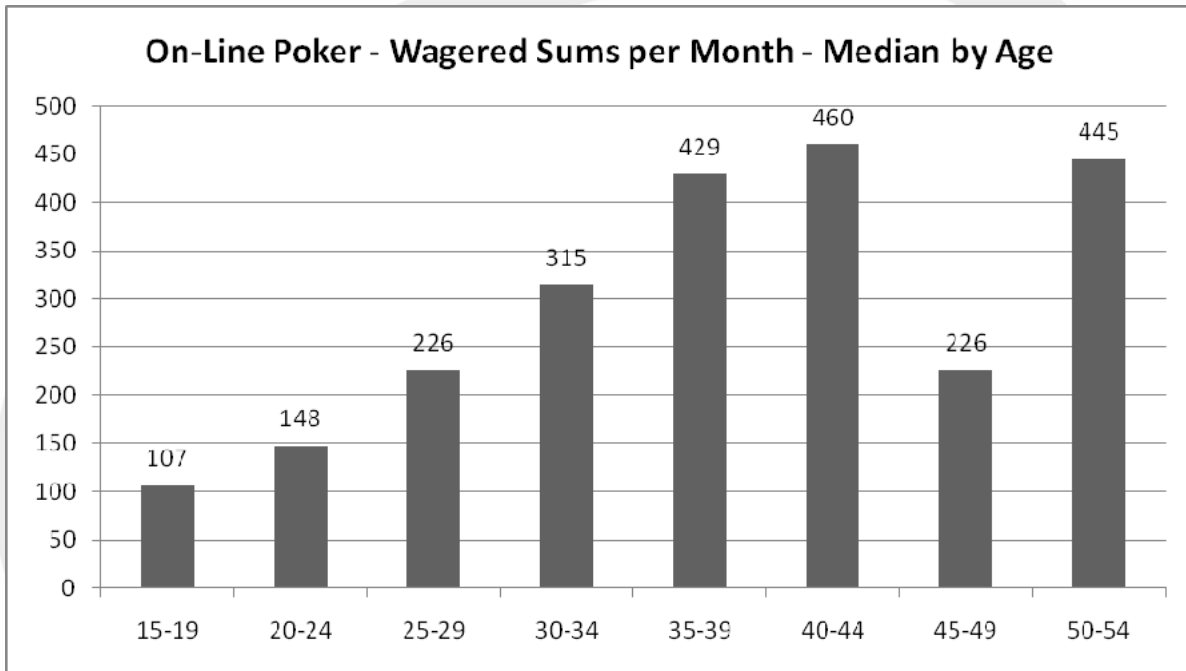


Chart 4.19

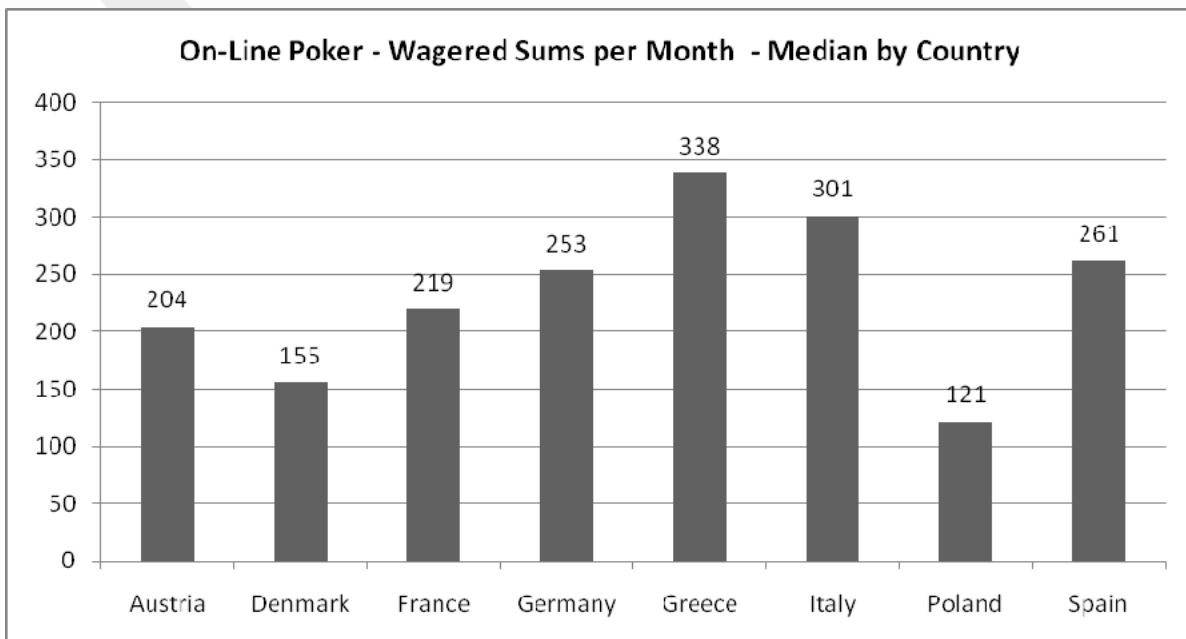


Chart 4.20

5. FOCUS ON HIGHLY COMMITTED GAMBLERS

It is interesting to look with more detail at the behaviour of players who were found as highly committed, in each of the three games.

To define the extreme behaviour in terms of euro spent per month, we selected all players whose monthly investment was more than 2σ (twice the standard deviation) higher than the average (this is a standard definition of “outlier” subjects). In table 5.1 we see the threshold values of spend per month used for defining the highly committed gamblers in the different games.

	Threshold Value (Euro per Month)
Sports Betting	4.984,1
On-line Casino	47.874,2
On-line Poker	8.176,8

Table 5.1

The threshold value for on-line casino is much higher than the others. It is to be noticed that 360 subjects (10.5% of total sample) spent more than 10.000€ per month.

In table 5.2 we see the number of outliers in the sample; the incidence on total number of gamblers is never higher than 2%.

	#	%
Sports Betting	669	1,9%
On-line Casino	58	1,7%
On-line Poker	48	1,8%

Table 5.2

In tables 5.3, 5.4 and 5.5 the average values of the variables have been calculated for the subset of outliers, in each type of game.

SPORTS BETTING – OUTLIERS									
	Euro per Month	Duration	No. Bets	Stakes (€)	No. Days w Bets	% Activity	No. Bets per Day	Euro per Bet	Gambling Loss
MEAN	11.886,26	76,11	1.044,78	30.662,74	46,80	0,79	19,89	97,14	2.029,2

Table 5.3

ON- LINE CASINO OUTLIERS									
	Euro per Month	Duration	No. Bets	Stakes (€)	No. Days w Bets	% Activity	No. Bets per Day	Euro per Bet	Gambling Loss
MEAN	126.105,9	101,8	9.014,4	346.020,1	37,8	0,52	117,8	410,2	6.903,3

Table 5.4

ON-LINE POKER OUTLIERS						
	Euro per month	No. Sessions	Tot. Wagered (€)	Duration	Wagered per Session	Gambling Loss
MEAN	19.589,8	512,4	154.088,8	221,8	331,4	-556,5

Table 5.5

6. COMPARISON AMONG THE VARIOUS TYPES OF GAMBLING

As we outlined in the previous paragraphs, the behaviour of gamblers with respect to the three types of games is different.

In on-line casino players tend to play many games in a few days, concentrated in a reduced number of days dedicated to gambling. Instead, in sports betting the gamblers tend to place few bets per day, of a lower amount but more frequently. In on-line poker we have observed few poker sessions in the period including many hands at the poker table (or at more tables at the same time).

We can anyway compare the three types of gambling using normalized variables. A cross-game analysis can be done looking at the ratio between stakes and days of activity, which is reported in table 6.1.

As in the next tables, we provide here mean, median and standard deviation values; however it should be noticed that mean values are biased by the small subset of highly committed gamblers in the asymmetrical distribution of the population, while median values³ are more robust and much lower.

Looking at both statistics, on-line casino proved to be much more expensive for the analyzed set of gamblers.

³ The values which divide the sample in two subsets of equal size: 50% of the sample below the median value and 50% above the median value.

	SPORTS BETTING	ON-LINE CASINO	ON-LINE POKER
	Euro per Month	Euro per Month	Euro per Month
MEAN	559,4	5.047,4	944,6
STD	2.212,3	21.413,4	3.616,1
MEDIAN	99,6	518,4	207,9

Table 6.1

The same statistics are summarized by country in table 6.2: we measured a very high level of monthly euro spent in Greece, for all games; the lowest level of monthly spending was recorded in Germany for sports betting, France and Poland for casino, Denmark and Poland for poker.

		EURO PER MONTH							
		Austria	Denmark	France	Germany	Greece	Italy	Poland	Spain
SPORTS BETTINGS	MEAN	551,6	539,1	746,7	433,5	836,1	825,3	994,2	875,4
	STD	1.818,5	1.305,0	2.602,5	1.995,3	1.771,1	2.858,2	2.677,6	3.617,8
	MEDIAN	109,7	124,2	123,1	80,9	301,3	123,5	126,8	140,0
ON-LINE CASINO	MEAN	6.706,0	3.125,6	2.370,9	7.383,3	5.175,3	4.135,1	1.518,9	5.255,2
	STD	29.092,4	9.820,6	6.957,9	33.723,7	11.508,2	12.158,0	4.087,8	15.832,8
	MEDIAN	485,4	342,1	259,7	649,8	1.065,5	568,9	260,4	649,6
ON-LINE POKER	MEAN	1.410,5	788,5	652,9	1.010,7	1.292,0	1.018,7	437,3	1.385,6
	STD	7.147,1	3.050,3	1.291,9	3.137,4	3.303,2	2.643,9	859,6	5.365,3
	MEDIAN	204,4	155,2	219,3	252,9	337,8	300,7	121,0	261,2

Table 6.2

7. SUMMARY OF THE MAIN EVIDENCES

The on-line gambler in this sample was found to be typically male, around 30 years old (with some variation across countries), slightly younger in on-line poker where the overall average age was 28 years old. The gambling life-cycle of the subject who approached on-line gambling (see Appendix A for details) includes an introductory period of enthusiasm in the first months; afterwards, there is a fast decreasing phase which - in four/five months - significantly reduces the number of active users. This phase is followed by a phase of revived interest, lasting a couple of months; then the rate of users settles on a steady level, slowly wearing out over time (25% of “old” users left the game every year).

There were large differences in gamblers behaviour across games.

The user of sports betting played often, betting in 25% of the days of his activity period. Although the median number of betting times per day is around three bets (staking 4.5€ each time), the typical sports gambler did not place bets more than once a day (modal behaviour). Only 4.1% of

users played more than 10 times a day. In fact, the most frequent behaviour of the sports gambler was to stake between 1 and 2 euro per bet. Only 11.8% of the total users had an average stake of more than 20 euro per bet, and among them 4.6% of the total users played more than 50 euro per bet.

At the time of the research, 51% of the subjects spent less than 100 euro per month; the most frequently measured behaviour was to spend in sports betting less than 25 euro per month.

With respect to other types of games, sports betting showed the lowest value of monthly spending (the median value was 100€ per user).

The on-line casino gambler played in a different way, with many games per day, concentrated in a limited number of gambling days. The median was 46 games per day, with a gambling frequency lower than in sports betting (8% of the days in the activity period). The wide majority of on-line casino players had an average stake per games lower than 10 euro, with the most frequent stake between 1 and 2 euro. We have in on-line casino a small percentage (1.1%) of extremely committed players, who put on stake more than 600 euro per bet. They are responsible for 14.4% of the total stakes played in the whole period. As for sports betting, the most frequent behaviour was to spend a limited amount of money: less than 50 euro per month. 5.2 % of the subjects, however, spent more than 20,000 euro per month. This core of strong gamblers pushed the average monthly spending in on-line casino up to more than 5,000€ per user, while the median value stays at 518€ per user.

The on-line poker player proved to be younger than average (30% of players are in the age interval 20-24 years old) and played in another way again: here we have poker sessions, when the user sits down at one or more virtual poker tables to play his hands. The average wagered money in each session is 30.7 €, but around three quarters of the on-line poker players played less than the average number of sessions and the typical behaviour of the on-line poker gambler was to stake in each session an amount from 5 euro to no more than 10 euro. The most frequent behaviour was to spend in on-line poker a limited amount of money: less than 25 euro per month. Only 3.2% of the subjects spent more than 30,000 euro per month. The median monthly spending in on-line poker was 208 € per user.

There were some significant differences among the eight EU countries analyzed in the sample, e.g.:

- In Greece, stakes in sports betting and at on-line casinos were the highest and the most numerous per user. The average and median amount of money gambled monthly by a Greek user was substantially higher than the benchmark, in all games;
- In Italy we observed on-line gamblers older than average. The average and median amount of money played monthly by Italian users in on-line poker were very high, while on-line casino proved to be less attractive;
- In Spain we measured very high monthly stakes in on-line poker, and high monthly amounts also in on-line casino and sports betting;

- In Poland we traced an on-line gambler profile significantly different from the other countries in the sample: younger players, with a 15% of female players (much more than the average incidence). Frequency of gambling was high, especially for internet sports betting, although monthly stakes were quite low.

The profile of gamblers in Germany, Austria, France and Denmark did not differ significantly from the average.

8. APPENDIX A: DETAILED ANALYSIS OF GAMBLING BEHAVIOUR

8.1. ANALYSIS OF TIME SERIES

8.1.1. SPORTS BETTINGS (242 days)

The daily time series of the number of internet sports betting users active on the net can be split in three phases:

- Initial period (from February 1st to February 28th 2005), characterized by a relative enthusiasm, getting up to the maximum level of daily gamblers (about 12,000 per day, one third of the total set);
- Decreasing period, when the subjects gradually leave gambling, down to an average of only 2,000 users per day (about 5% of the maximum measured level);
- Revival period, about six months after the subscription; at the end of this period we see about 5,000 active users per day.

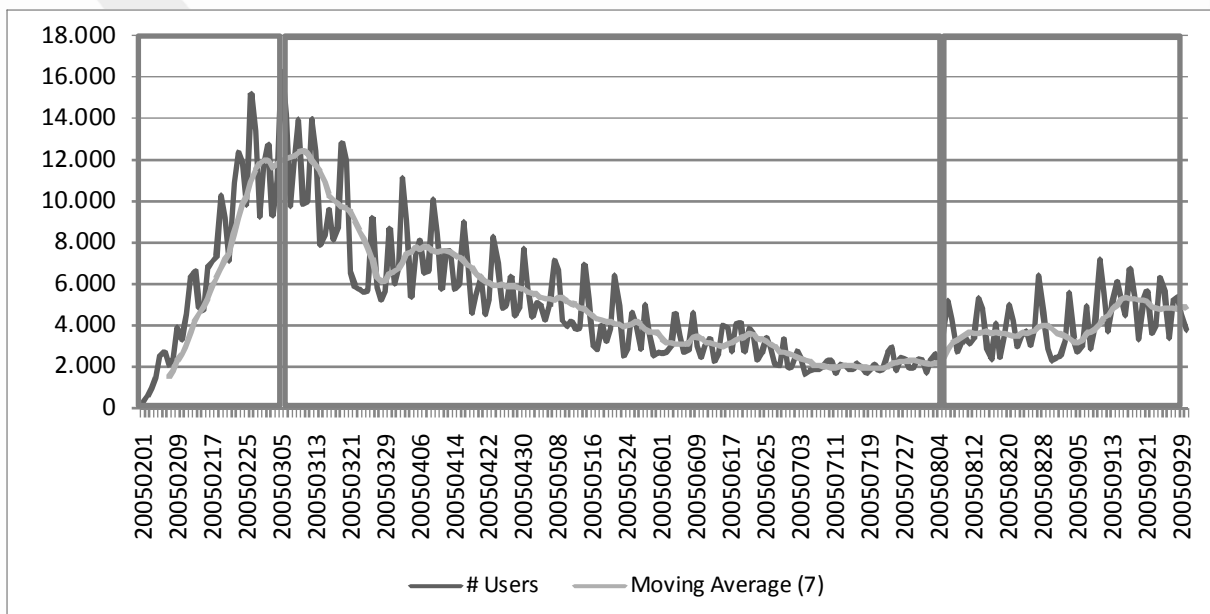


Chart 8.1

8.1.2. ON-LINE CASINO (758 days)

The daily time series of the number of on-line casino users active on the net is longer than the former one, but we can see in it the same three temporal phases outlined before:

- a) Subscription and initial period (from February 1st to March 15th 2005), with 350 users per day;
- b) Decreasing period, when the subjects gradually decrease and leave gambling, down to an average of only 100 users per day (here, about 28% of the maximum measured level);
- c) Revival period, about six months after the subscription.

As this series was carried over, we can see also the end of the revival period, which is two months long, and the beginning of a final erosion period continuing along the second year, with a wear-out effect which progressively diminishes the size of the set of active users.

In the last year (from the end of February 2006 to the end of February 2007) the number of active users per day goes down by -25%.

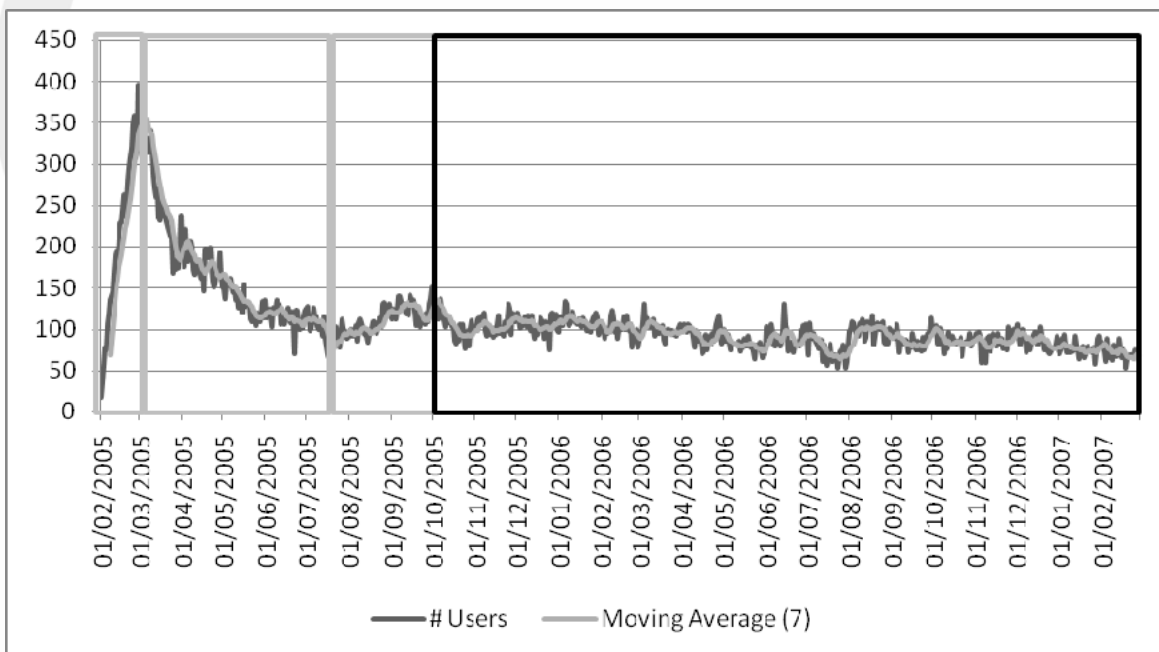


Chart 8.2

The daily time series of the number of on-line active poker players is not available.

9. APPENDIX B: SUMMARY OF TABLES BY COUNTRY

In the following tables we provide the details of variables (mean, median and standard deviation) for the three types of gambling and for the eight countries.

SPORTS BETTINGS										
		BETS	STAKES	NR DAYS BETS	DURATION	% ACTIVITY	BETS PER DAYS	EURO BETS	EURO PER MONTH	GAMBLING LOSS
AUSTRIA	MEAN	180,51	1.330,34	21,99	112,78	0,36	7,40	12,64	551,60	120,44
	STD	520,93	9.063,38	27,77	89,43	0,33	25,19	26,22	1.818,53	902,51
	MEDIAN	41,00	190,00	12,00	106,00	0,23	3,17	4,91	109,72	42,00
DENMARK	MEAN	129,37	1.017,40	17,49	102,85	0,38	6,06	15,53	539,14	104,00
	STD	799,46	4.274,95	23,76	90,39	0,35	14,00	27,41	1.304,95	648,39
	MEDIAN	30,00	193,29	9,00	75,00	0,23	2,76	6,28	124,18	50,25
FRANCE	MEAN	248,41	2.226,39	28,13	119,80	0,37	7,22	13,58	746,72	186,92
	STD	704,23	10.681,88	34,42	89,46	0,31	12,20	52,66	2.602,53	836,39
	MEDIAN	64,00	247,93	15,00	118,00	0,26	3,75	4,43	123,05	50,00
GERMANY	MEAN	198,34	1.354,80	27,36	126,88	0,34	5,23	8,81	433,45	144,54
	STD	640,65	7.644,51	32,25	88,60	0,30	8,06	23,12	1.995,32	703,66
	MEDIAN	53,00	187,40	16,00	150,00	0,23	3,08	4,22	80,92	40,00
GREECE	MEAN	340,69	2.343,32	32,42	108,37	0,43	8,10	17,04	836,13	278,31
	STD	1.053,51	6.364,63	36,71	88,94	0,29	13,16	38,57	1.771,06	901,48
	MEDIAN	83,00	531,98	19,00	84,00	0,37	4,00	6,94	301,28	100,00
ITALY	MEAN	278,46	3.081,49	28,23	124,61	0,33	8,95	16,48	825,31	303,07
	STD	728,23	16.378,47	34,45	85,98	0,29	23,95	43,96	2.858,17	1.307,44
	MEDIAN	64,00	254,77	15,00	131,00	0,23	3,73	4,29	123,54	63,50
POLAND	MEAN	185,32	929,13	25,26	91,76	0,52	6,00	22,03	994,24	84,40
	STD	540,28	7.256,43	33,89	88,66	0,36	11,94	39,07	2.677,58	1.444,34
	MEDIAN	45,00	177,08	12,00	57,00	0,44	3,00	2,88	126,79	35,50
SPAIN	MEAN	236,43	2.473,67	26,69	111,91	0,38	6,78	13,81	875,37	221,57
	STD	690,22	12.186,82	32,94	88,25	0,31	12,04	28,52	3.617,84	1.164,87
	MEDIAN	58,00	255,67	15,00	95,00	0,27	3,50	5,57	140,00	48,60

Table 9.1

		ON-LINE CASINO								
		BETS	STAKES	NR DAYS BETS	DURATION	% ACTIVITY	BETS PER DAYS	EURO BETS	EURO PER MONTH	GAMBLING LOSS
AUSTRIA	MEAN	3.227,68	45.881,62	28,66	468,00	0,15	110,52	74,17	6.706,01	1.380,56
	STD	9.450,70	219.769,73	50,62	243,31	0,20	197,58	422,48	29.092,37	4.887,38
	MEDIAN	523,00	3.472,63	12,00	331,00	0,07	43,10	5,28	485,43	145,10
DENMARK	MEAN	3.169,27	17.555,50	22,14	355,00	0,15	83,28	31,75	3.125,62	621,97
	STD	16.309,69	59.986,16	40,72	241,67	0,21	141,58	132,40	9.820,57	2.230,62
	MEDIAN	327,00	1.723,75	11,00	289,00	0,06	28,53	5,34	342,08	107,25
FRANCE	MEAN	4.299,71	18.497,25	24,35	373,00	0,14	115,94	20,26	2.370,89	654,34
	STD	13.552,47	64.319,40	41,52	230,23	0,19	205,69	57,11	6.957,94	2.352,64
	MEDIAN	465,00	1.479,00	10,00	311,00	0,06	45,57	3,07	259,69	108,00
GERMANY	MEAN	2.697,77	24.315,29	22,45	784,00	0,16	117,28	40,24	7.383,32	742,71
	STD	8.419,92	76.902,61	35,92	234,04	0,19	191,44	156,06	33.723,69	3.119,81
	MEDIAN	557,00	3.388,75	11,00	180,50	0,09	42,65	4,97	649,80	130,25
GREECE	MEAN	5.338,5	37.392,1	23,9	310,7	0,18	184,4	17,6	5.175,3	1.092,3
	STD	12.831,4	97.653,5	34,2	240,6	0,23	237,9	101,5	11.508,2	2.818,8
	MEDIAN	1.229,0	5.246,0	11,0	294,0	0,08	100,8	3,6	1.065,5	171,8
ITALY	MEAN	5.292,58	27.287,63	29,53	318,00	0,17	125,74	36,33	4.135,14	1.045,93
	STD	18.439,00	78.453,07	40,52	234,72	0,22	202,97	175,44	12.158,04	2.853,22
	MEDIAN	628,50	3.018,41	12,00	310,50	0,08	44,43	4,53	568,92	164,75
POLAND	MEAN	2.816,34	14.011,48	21,01	223,00	0,18	77,90	30,15	1.518,90	224,69
	STD	8.069,77	53.408,62	27,91	230,76	0,23	130,90	131,11	4.087,78	1.090,14
	MEDIAN	201,00	815,75	11,00	256,00	0,08	19,00	3,23	260,40	42,50
SPAIN	MEAN	3.149,33	37.189,48	24,23	425,00	0,16	96,98	44,10	5.255,18	1.032,20
	STD	12.753,18	135.500,24	42,81	233,70	0,20	186,12	126,03	15.832,80	3.327,11
	MEDIAN	392,00	3.088,93	10,00	270,00	0,07	34,70	7,78	649,56	142,00

Table 9.2

		ON-LINE POKER					
		SESSIONS	WAGERED	DURATION	WAGERED/ SESSION	EURO PER MONTH	GAMBLING LOSS
AUSTRIA	MEAN	280,50	16.053,78	292,84	46,82	1.410,52	1.063,75
	STD	506,52	87.220,52	227,37	184,64	7.147,12	5.561,34
	MEDIAN	79,00	1.308,97	245,00	14,73	204,38	223,69
DENMARK	MEAN	175,81	9.343,93	321,24	31,81	788,46	259,32
	STD	320,17	47.012,08	246,99	72,22	3.050,26	3.846,54
	MEDIAN	56,50	834,84	313,00	15,08	155,19	102,09
FRANCE	MEAN	256,11	6.393,09	263,54	20,71	652,94	628,70
	STD	421,64	19.190,40	230,23	33,10	1.291,90	1.828,43
	MEDIAN	84,00	809,75	206,00	10,28	219,28	103,58
GERMANY	MEAN	217,30	5.585,44	197,55	23,31	1.010,73	761,64
	STD	361,36	20.081,66	194,24	45,92	3.137,37	2.473,69
	MEDIAN	78,00	791,30	147,00	8,85	252,89	106,36
GREECE	MEAN	176,33	8.348,42	245,78	41,19	1.292,00	1.153,74
	STD	312,06	26.489,13	222,79	83,05	3.303,17	2.417,95
	MEDIAN	59,00	995,07	190,00	19,71	337,83	199,30
ITALY	MEAN	252,15	7.221,71	286,67	36,41	1.018,72	1.156,75
	STD	433,29	15.741,33	233,21	47,61	2.643,93	2.483,95
	MEDIAN	67,00	1.378,39	239,00	16,83	300,66	237,74
POLAND	MEAN	188,35	2.381,46	219,57	13,44	437,28	245,22
	STD	585,13	7.263,89	220,97	23,43	859,58	1.087,88
	MEDIAN	36,00	334,08	143,00	6,36	120,98	29,94
SPAIN	MEAN	179,14	7.869,71	259,24	45,56	1.385,56	891,20
	STD	280,27	21.930,35	222,57	104,42	5.365,25	2.595,84
	MEDIAN	53,00	1.321,67	224,00	18,33	261,15	117,35

Table 9.3