

research snapshot

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Estimating the social surplus of gambling in France by gambling types

What this research is about

Problem gambling can lead to many negative consequences, such as job loss, depression and anxiety, poor health, and financial hardship. These damages have become public health concerns. It is important that public authorities examine the trade-offs between the benefits that stem from enjoying gambling, the profits of gambling companies, government revenues from taxation, and the costs of problem gambling. The social surplus of gambling can be calculated by adding the consumer surplus, the producer surplus, and the taxation revenue.

The rational benchmark approach can be used to help estimate the consumer surplus. The rational benchmark approach suggests that people with problem gambling experience a loss of welfare (i.e., a negative surplus), which is dependent on how much excess money they have spent. In this study, the researchers described the framework they used to measure social surplus. They then estimated the social surplus of gambling in France.

What the researchers did

The researchers used data for the year 2019 and only considered legal gambling. They used data on gross gambling revenue (GGR). GGR is the difference between the amount wagered and the amount paid out in winnings. The researchers also used data on taxation revenue. Both types of data were collected from the French Monitoring Centre for Gambling. The researchers subtracted between the GGR and taxation revenue to calculate the net gambling revenue (NGR), which was used to estimate the producer surplus.

The researchers distinguished between people who gambled recreationally and those who had problem

What you need to know

In this study, the researchers described the framework they used to measure social surplus. They then estimated the surplus of gambling in France. The social surplus of gambling can be calculated by adding the consumer surplus, the producer surplus, and the taxation revenue. The researchers used data for the year 2019 and only considered legal gambling. The researchers found that the consumer surplus of people with problem gambling was negative for all types of gambling. The social surplus was a net loss of about 6 billion euros. The researchers also analyzed different scenarios, including changing the threshold of excessive gambling (vs. recreational gambling). The social surplus was negative in all scenarios for poker and sports betting. It was positive in all scenarios for draw lotteries and scratch cards.

gambling. They did this by using the overall score on the Problem Gambling Severity Index (PGSI). PGSI scores were collected in France from a representative sample of the population. This dataset was collected as part of the Health Barometer, a national survey carried out by the French National Public Health Agency. The researchers used the PGSI scores collected in 2019. PGSI scores from 10,352 adults between 18 and 85 years of age were included in this study. The researchers used the PGSI scores to classify people who gamble by assuming that those who scored between 0 and 2 points were recreational gamblers and those who scored between 3 and 27 points were people with problem gambling.

The researchers identified how much money spent on gambling could be attributed to 'recreational gambling' versus 'excessive gambling'. The data also came from the 2019 Health Barometer. Participants reported how much they spent on each gambling activity. The researchers calculated total spending on an annual basis for each gambling type. Then, they defined what recreational spendings versus excessive spending was for people with problem gambling by using people who gamble recreationally as the benchmark to assess the corresponding spending.

To measure consumer surplus, the researchers assumed that the price elasticity of recreational demand was equal to 1.25 in absolute value. They also assumed that the price elasticity of supply was equal to 1.

What the researchers found

The consumer surplus of people with problem gambling (3+ on PGSI) was negative for all types of gambling. The social surplus was a net loss of about 6 billion euros. Thus, the gain from recreational gambling, production, and taxation did not offset the loss due to problem gambling. But draw lotteries, scratch cards, and horse racing had a positive social surplus. Four gambling types (sports betting, slot machines, poker, and table games) had a negative social surplus. Poker and sports betting had the largest negative social surplus.

When the researchers examined the social surplus by identifying people with problem gambling to those who scored 1+ on the PGSI, they noted a loss in social surplus of about 23 billion euros. When the researchers examined the social surplus by identifying people with problem gambling to those who scored 8+ on the PGSI, they noted a positive social surplus (about 4 billion euros). Draw lotteries, scratch cards, slot machines, and table games had a positive consumer surplus with the threshold of PGSI 8+. This changed the social surplus for slot machines and table games to positive. Poker and sports betting consistently had a negative social surplus.

The researchers performed analyses using alternative estimates of price elasticities of demand and supply.

There was no change in the signs of consumer and social surplus. This suggested that problem gambling threshold was the most important factor in estimating social surplus.

How you can use this research

Policy makers can use this approach to monitor estimates of social surplus from gambling over time. Researchers can use this to approach to measure the impact of regulatory interventions.

About the researchers

Maxence Miéra is affiliated with the University of Artois and the LEM (Lille Economics and Management) in Arras, France. **Sophie Massin** is with the University of Lille and the LEM (Lille Economics and Management) in Lille, France. **Vincent Eroukmanoff** is with the Observatoire français des drogues et des tendances addictives in Paris, France. For more information about this study, please contact Sophie Massin at sophie.massin@univ-lille.fr.

Citation

Miéra, M., Massin, S., & Eroukmanoff, V. (2023). The social value of gambling: Surplus estimates by gambling types for France. *The European Journal of Health Economics*. Advance online publication. <https://doi.org/10.1007/s10198-022-01560-9>

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About Greo

Greo has partnered with the Knowledge Mobilization Unit at York University to produce Research Snapshots. Greo is an independent knowledge translation and exchange organization with almost two decades of international experience in generating, synthesizing, and mobilizing research into action across the health and wellbeing sectors. Greo helps organizations improve their strategies, policies, and practices by harnessing the power of evidence and stakeholder insight.

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Information item	Value
Title	The social value of gambling: Surplus estimates by gambling types for France
Article URL	https://link.springer.com/article/10.1007/s10198-022-01560-9
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Keywords	Gambling; consumer surplus; rational benchmark; producer surplus; taxation revenue; social surplus
Geographic coverage	France
Study population	Data from 10,352 adults between 18 and 85 years of age and living in France were included in this study.
DOI	https://doi.org/10.1007/s10198-022-01560-9
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Sampling procedure	The researchers used data from the Health Barometer for the year 2019. They also only considered legal gambling. PGSI scores were collected in France from a representative sample of the population as part of the Health Barometer, a national survey carried out by the French National Public Health Agency. The researchers used the PGSI scores collected in 2019 from 10,352 adults between 18 and 85 years of age. The data on gross gambling revenue and taxation revenue came from the French Monitoring Centre for Gambling. The data on gross gambling revenue were collected from the gambling operators. The data on taxation revenue were collected from the Ministry of Finance, the Ministry of the Interior, and the Online Gambling Regulatory Authority.
Response rate	N/A
Study design	Secondary data analysis
Snapshot written by	Kristen Morrison