



# **SETTING LIMITS: GAMBLING, SCIENCE AND PUBLIC POLICY.**

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Pekka Sulkunen  
Prof. Emeritus  
CEACG, Department of Social Research  
University of Helsinki



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## Authors:

Pekka Sulkunen, Thomas Babor, Jenny Cisneros Örnberg, Michael Egerer, Matilda Hellman, Charles Livingstone, Virve Marionneau, Janne Nikkinen, Jim Orford, Robin Room, Ingeborg Rossow

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# OBJECTIVES AND METHODS

## Objective: state of the art

- to determine what kinds of *issues for public interest* arise from gambling
- to determine how problematic gambling is related to the total amount of gambling
- to determine what kinds of policies and "responsible gambling" tools are effective and cost-efficient

## Methods:

- systematic review of research literature
- about 2300 studies consulted
- 721 references, about 70 % presenting original research or systematic reviews
- critical collective assessment of evidence
- summary statement highlighting major concerns and recommendations



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Foreword by Dr Vladimir Poznyak,  
WHO

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and the rise of the industry

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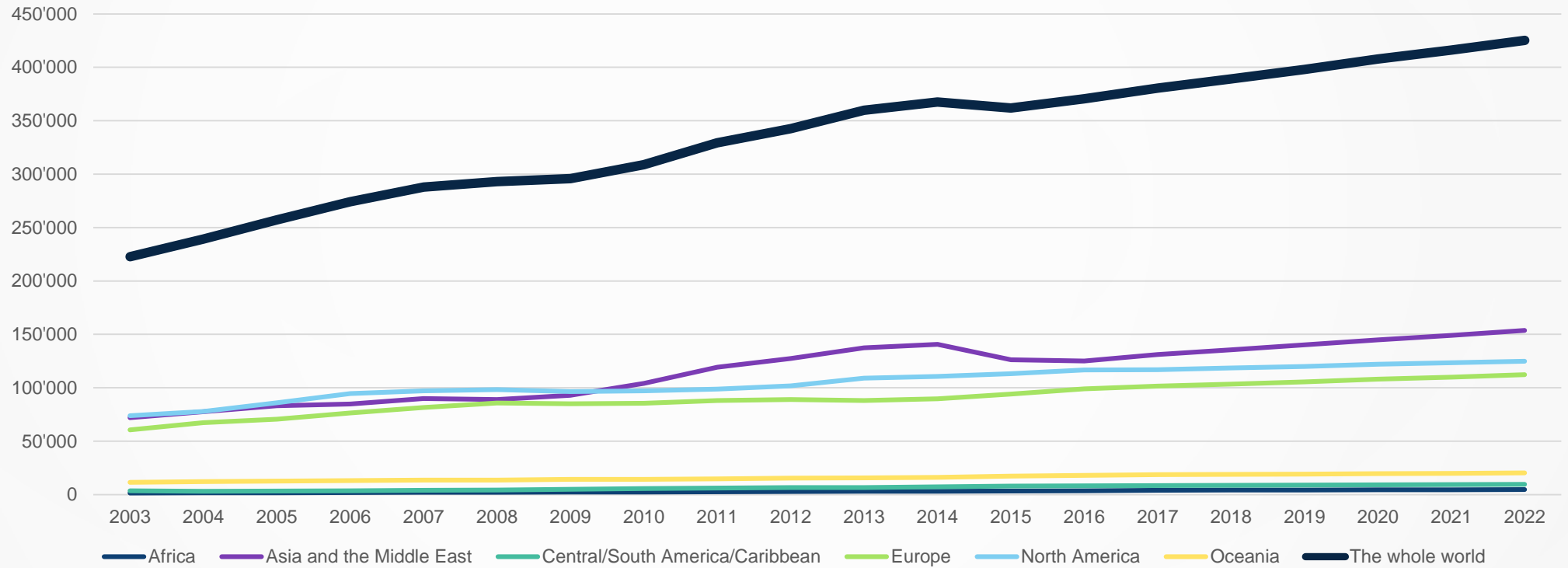
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# Global growth of gambling 2003-2022 in million EUR

GGR by region



Courtesy of H2 Gambling Capital

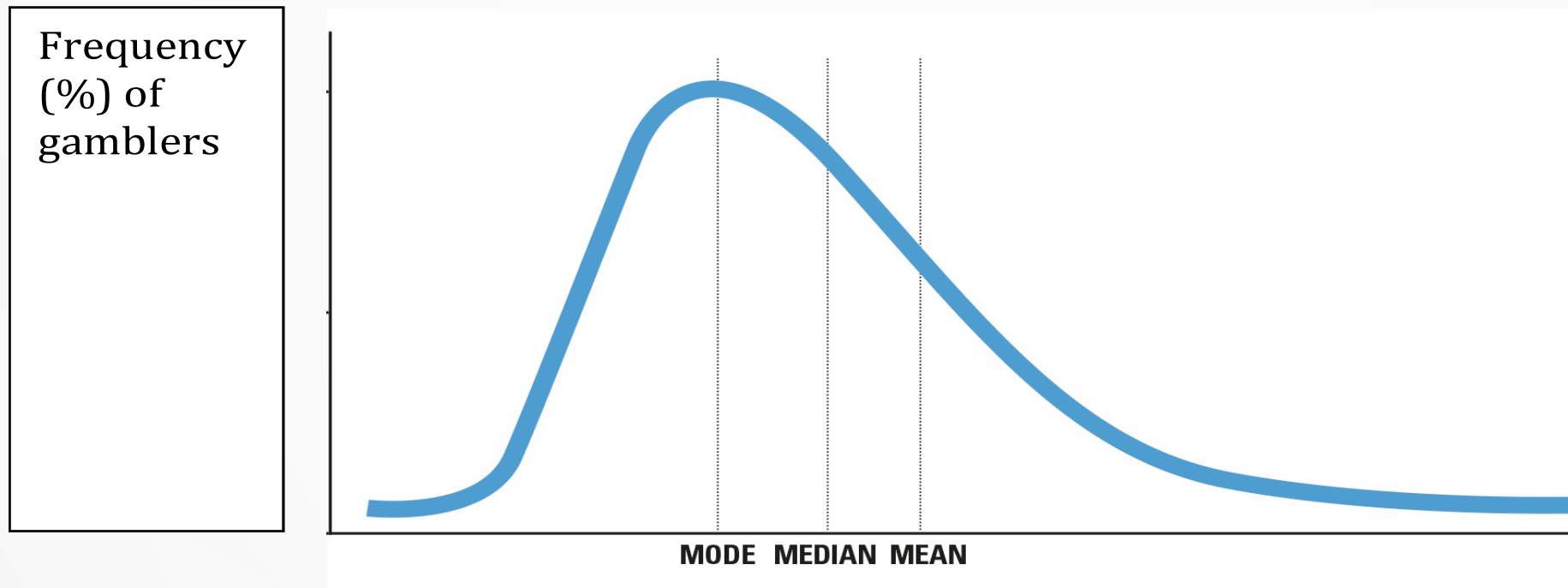


# PART 1 OF THIS PRESENTATION: THE TOTAL CONSUMPTION MODEL



## The total consumption model (TCM)

**Figure 6.1.** Illustrative curves demonstrating a uni-modal distribution skewed to the right, as applied to gambling



Gambling behavior (e.g. gambling frequency, gambling expenditures)



## The total consumption model (TCM)

**Figure 6.2.** Assumed associations between total gambling consumption, prevalence of excessive users, and harm rate in a population.







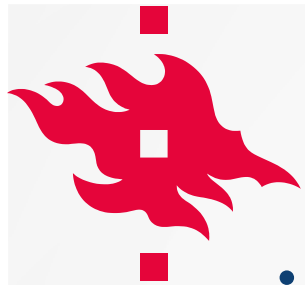
## TCM Version 1: Heavy gambling

- **Solid support for the skewed distribution and high concentration of gambling consumption** (Govoni, 2000; Grun and McKeigue, 2000; Lund 2008; Hansen and Rossow 2008; Hansen and Rossow 2012)
- **A small fraction of gamblers account for a very large fraction of all gambling activities and of all gambling expenditures** (eg. Chipman et al. 2006; Williams and Wood 2004; Livingstone and Woolley 2007)
- High turnover in the upper end of the tail



## TCM Version 2: prevalence of gambling problems -1

- **Very small prevalence rates**
  - varying across populations and in time from 0.5% to 7.6%
  - cross-country average of 2.3% of the population (smaller than for alcohol or drugs)
- **Variable individual level risk curves**
  - no J-curves (cf. alcohol);
  - r-curves frequently observed;
  - linear curves are also common



## TCM Version 2: prevalence of gambling problems -2

- **Population level burden of harm**
  - most likely to follow a linear pattern
  - this is not always observed in studies of change
- **Confounding factors at the population level**
  - small frequencies → measurement errors
  - unrecorded consumption
  - game mix may change (substitution)
  - population mix may change (abstainers/heavy)
  - high fluidity of the problem gambling population
- **Estimated 7 to 15 other people besides the gambler are affected**



## Comorbidity

Half of the public revenue from gambling comes from a very small minority of heavy gamblers (1 to 2 percent of the population) (verified)

About half of this group have one or more of the following

Poverty

Mental health problems and elevated suicide risk

Physical health problem

Substance use problem

Criminal record

→ **causal sequencing is not the key issue!**



## Recommendations 4 and 5/13: bearing the burden

- 4. A very small part of the population and of those who gamble account for a very large share of the total spending. **Effective preventive policy will have to accept that it most likely also reduces the total volume of the trade.**
  
- 5. The **direction of causality between gambling and other problems cannot always be determined**, but comorbidity should nevertheless be considered in regulating and in providing help

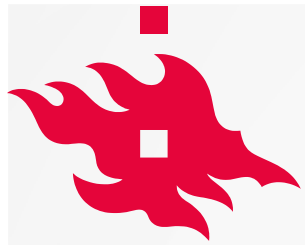


# PART 2 OF THIS PRESENTATION: AVAILABILITY THEORY



## Availability theory

- Increased availability increases demand and consumption
- Decreased availability decreases demand and consumption
- Confounding factors
  - Few studies
  - Other changes in the context and population mix
  - Changes in games and environments
  - The price factor is hard to estimate
  - Substitution/complementary relations are not well known
- **Conclusion on the basis of available evidence: availability matters but involves many elements and dimensions. EXAMPLE: game features**



**Table 7.1.** Studies of the impact of increased availability according to country, type of change, and outcomes.

COUNTRY	AVAILABILITY CHANGE	YEAR	OUTCOMES	REFERENCES	OBSERVATIONS
AUSTRALIA	General increase in gambling availability	2003–2012	No increase in problem gambling; gambling participation declined	Abbott et al. (2016)	Points towards adaptation model
AUSTRALIA	Permission to set up EGMs in hotels in Queensland	1991	Problem gambling increased	The Australian Institute of Gambling Research (1995)	Also found positive effects on employment
CANADA	Opening of the gaming hall “Trois-Rivières” in Quebec	2007	No elevation in crime or increase in problem gambling	Alain et al. n.d	
CANADA	Opening of “Hull” casino	1996	No increase in problem gambling rate	Jaques and Ladouceur 2006	
CANADA	Opening of “Niagara Falls” casino	1996	Gambling problems higher a year after opening the casino	Room et al. 1999	
CANADA	Opening of “Windsor” casino	1994	No increase in problem gambling rate; though higher demand for problem gambling counselling	Govoni et al. 1998	
FRANCE	Permitting licensed Internet gambling	2010	Increased participation, but decreased problem gambling, when compared to unregulated sites	Costes et al. 2015	
SWEDEN	Opening of two casinos	2001	Increased gambling problems in community of one of the casinos	Westfelt 2006	
SWITZERLAND	Permission to open 19 casinos	2002	No change in problem gambling	Bondolfi et al. 2008	Same time as prohibition of non-casino gambling machines and strict preventive measures inside casinos
UK	Introduction of the National Lottery	Mid-1990s	Excessive gambling increased	Grun and McKeigue 2000	
US	Opening of casinos in Kentucky	1993	No effect on bankruptcies	Boardman and Perry 2007	
US	Parishes allowed to set up EGMs in Louisiana	1992	Increase of Gamblers Anonymous groups	Campbell and Lester 199 9	



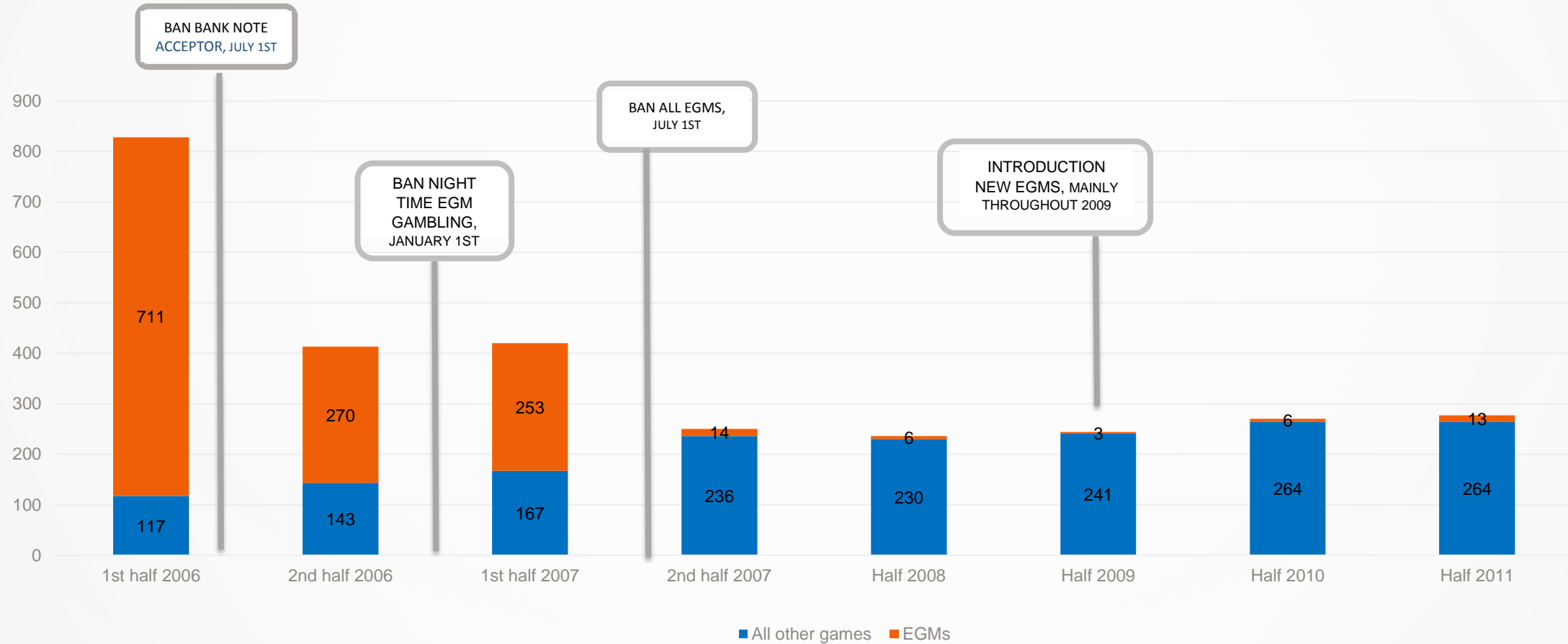


**Table 7.2.** Impact studies of reduced availability of gambling machines.

COUNTRY	AVAILABILITY CHANGE	YEAR	OUTCOMES	REFERENCES	OBSERVATIONS
NORWAY	Temporary EGM prohibition; afterwards Norsk Tipping monopoly	2007	Problem gambling prevalence; differing results depending on measurement, but problem gambling help seeking decreased	Rossov and Hansen 2015 ; Lund 2009	Combined with EGM modifications, removal of note acceptors, personal identification card
SWITZERLAND	Gambling machines outside casinos prohibited	2005	No decrease in problem gambling, but clear reduction of problem gamblers with probable alcohol problem	Bondolfi et al. 2008	Same time permission to open 19 casinos
US	Temporary ban of EGMs in South-Dakota	1994	Significant decrease of visits to problem gambling treatment facilities	Carr et al. 1996	Ban lasted only three months
US	Ban of EGMs in South-Carolina	2000	Number and size of Gamblers Anonymous groups decreased	Bridwell and Quinn 2002, Williams et al. 2012b	Demand for help with problem gambling remained low in later years as well as during the ban.



**Figure 7.1.** Number of help line calls per half year by year and main problem game





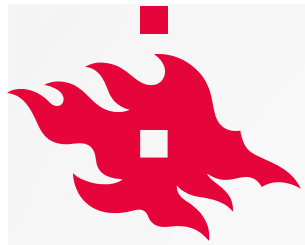
## New Zealand pokie machine





## Norwegian Multix EGM





## Regulating game features

### EVIDENCE SUPPORTS:

- High speed, high and progressive jackpot size, losses disguised as wins (LDW) are always bad and can be regulated
- Sensory effects, fake interactive features, other misleading skill enhancers are known for their effects and can be regulated to reduce harm
- Limits on maximum spending or losses per hour, day, week or month are frequently applied and often work if sufficiently low
- Protective rules on payments, frequent mandatory pay-outs and credit displays in real money are effective techniques to improve loss awareness and can be implemented

### LESS CERTAIN ABOUT THESE:

- Limiting bet sizes may reduce gambling but also increase it
- The balance sought by operators between intensity, time on device and spending money is often beyond the reach of regulators



## Conclusions and a recommendation: regulating availability

- The harm to society varies with the total amount of money and time spent on gambling. **Game features have different potentials for harm and different capacities to collect money from players.**
- Industry strategies have **multiple goals** and seek a balance between them
- Some strategies are **beyond the reach of** regulation (integrating gaming and gambling, variations in game features and venue characteristics according to market conditions)
- Game offer is a complex whole:- effects of single factors or features or regulations on these are difficult to identify
- **There is a need to develop composite indicators (CI) for pre-evaluating industry strategies and for assessing ex post their effects on gambling related harm**



# CONCLUSION

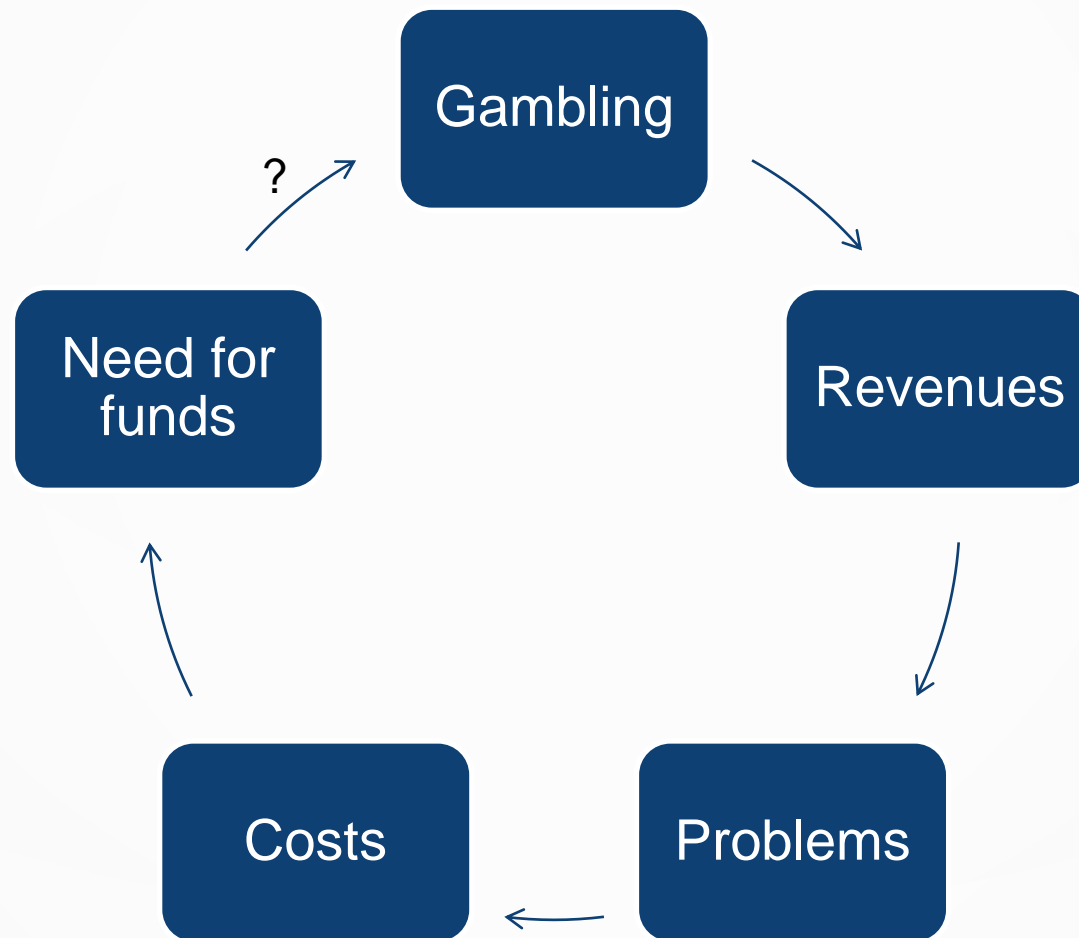
*Redistribution of wealth, concentration of the cost on a very small fragment of the population, and reinforcement of other vulnerabilities make gambling policy an issue of distributive justice.*







# LOOP ONE: PUBLIC REVENUE AND PUBLIC COST





# LOOP TWO: DEPENDENCIES ON THE "RENT"

