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Legalized Gambling: Socio-Economic Impacts

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Abstract: ***Legalization of gambling is a very sensitive topic as on one hand, it is not considered to be a legitimate source of entertainment, whereas on the other hand, it is considered to be a very good source of growth in economy if it is legalized. In this article, we have done a thorough literature review to understand the economic and social impacts of the legalization of gambling. In this study we have also seen examples where the state government, having legalized the gambling, lotteries, etc., have the monopolistic control over the system, which in fact is detrimental to the economy. This is because instead of the demand supply ruling the economics, the government is. This article studies the impacts of legalization of gambling on consumers, government, the revenues, economics of the community and its social outcomes.***

Keywords: gambling, monopolist, legalization

1. Introduction

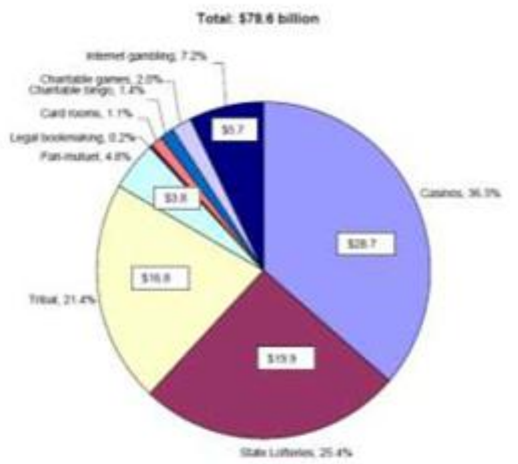
As legalized gambling continues to grow in popularity and prevalence, and new forms of gaming are introduced and expanded, there is much public debate about the costs and benefits of this sector of the economy. Unlike other industries in which the market is the principal determinant of supply and demand, government decisions have largely determined the size and form of the legalized gambling sector in the United States. For example, in every state that has legalized lottery gambling, the state has declared itself the monopolist provider. In other forms of gambling, federal, state, and local governments determine the kinds of gambling permitted and the number, location, and size of establishments allowed. One explanation for this view and history of gambling is moral opposition to gambling as a legitimate form of entertainment. Another is concern that unregulated gambling would produce a number of negative effects on society. These include both the negative consequences for gamblers themselves – e.g., financial and family distress caused by problem gambling – and the negative externalities imposed on society, such as increased crime. On the other side of the debate, supporters of legalized gambling recognize the increase in consumer welfare for those who enjoy gambling and participate "responsibly". Casino advocates point to potential economic benefits, including job creation and development. Politicians in favor of expanded gambling operations point to the revenue-generating potential for state and local governments of state lotteries and the taxation of casino revenues. The objective of our term paper is to analyze the consequences of the legalization of gambling in various forms and to propose a model which can be applied in any country for deciding upon the policy framework for legalization of gambling.

2. Literature Survey

2.1 Casino

Prior to 1978, there were no legal casinos in the United States outside Nevada. In 1990 the jurisdiction of Atlantic City, NJ became only the second jurisdiction in the country to allow casino gambling. By 2003, casinos operated legally in 37 states. There were 391 commercial casinos operating in 15 states and an additional 356 Native American casinos, operated by 222 tribes, in 30 states.

Figure 1: 2003 Gross Gambling Revenues by Industry, in billions

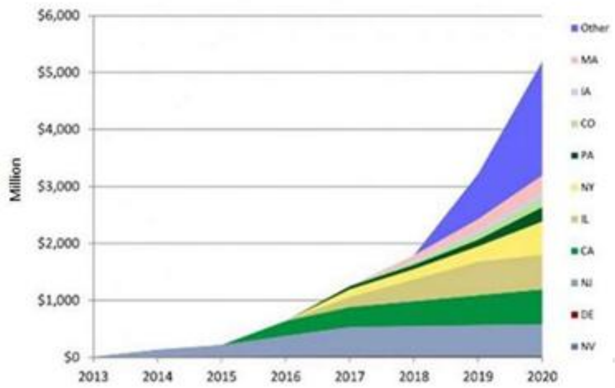


Source: Christiansen Capital Advisors (2004)

2.2 Impact on Surrounding Communities

Much of the economic research investigating the ancillary economic benefits of casinos has focused on riverboat casinos. Riverboat casinos are a uniquely American establishment. Evans and Topoleski (2002) conduct a rigorous examination of the economic and social impacts of Indian casinos for both Indian tribes themselves and surrounding communities. The authors employ a difference-in-difference empirical approach that compares economic outcomes before and after tribes open casinos to outcomes over the same period for tribes that do not adopt or are prohibited from adopted gaming ventures. Their data suggest that the opening of an Indian casino in a county leads to a 2 percent reduction in county-level mortality rates. However, the authors identify substantial negative effects as well - bankruptcy rates, violent crimes, and auto thefts and larceny each increase in the surrounding community by 10 percent. Grinols and Mustard (2004) empirically investigate the relationship between casinos and crime rates using county-level crime data on the 7 FBI Index 1 offenses (robbery, aggravated assault, rape, murder, larceny, burglary, and auto theft) from 1977 to 1996. Their results suggest that the effect on crime is low shortly after a casino opens, and grows over time.

U.S. online gambling market by 2020



2.3 Impact on Public Revenue

Casino businesses are subject to taxation and therefore have a direct impact on public revenue. Casinos could also cannibalize sales from state lottery operations. Three studies offer evidence suggesting that they do. Siegel and Anders (2001) investigate the relationship between Indian casinos and state lottery revenue in Arizona. The authors' empirical analysis finds that a 10 percent increase in the number of slot machines is associated with a 2.8 percent decline in lottery sales. Casinos might indirectly affect public revenue as well. Insofar as casinos generate additional business income, they might indirectly increase other forms of tax revenue. Insofar as they cannibalize sales from other businesses, they might decrease net tax revenue. Anders, Siegel, and Yacoub (1998) find that as a result of the introduction of two Indian casinos into Maricopa County, Arizona in 1993, employment and retail sales in the restaurant and bar sectors declined.

2.4 Unresolved Issues

The weight of the empirical evidence suggests that casinos do in fact impose negative social costs on surrounding communities, most notably, an increased prevalence of property and violent crime. The distributional impacts are also not well-understood. Native Americans on reservations seem to be big winners of the tribal gaming movement with increased reservation population and employment. But who are those deciding to re-migrate to tribes or stay on the reservation? Are the Native American beneficiaries those who would have been economically successful elsewhere? Surrounding communities seem to win in terms of job Source: Morgan Stanley creation and lose in terms of increased bankruptcy and crime. But who are getting new jobs? And who are the victims of crime? And finally, a major issue common across all forms of legalized gambling is the efficiency costs associated with the established market structure. In many states, the nature of agreements between states and Native American tribes grants tribes monopoly power over the provision of casino-style gambling.

2.5 State Lotteries

This kind of gambling started to take place in the 1600s in states and British colonies. The era of the modern state lottery began in 1964 in New Hampshire. Following New Hampshire's lead, New York and New Jersey soon introduced their own state Lotteries. Let's see the impacts of this game.

2.6 Distributional Impacts

A number of studies have investigated the demographic predictors of lottery gambling and have tended to find that, on average, state lottery products are disproportionately consumed by the poor. The data reveal the following general trends. First, lottery gambling extends across races, sexes, and income and education groups. Second, black respondents spend nearly twice as much on lottery tickets as do white or Hispanic respondents. Third, average annual lottery spending in dollar amounts is roughly equal across the lowest, middle, and highest income groups. This implies that on average, low-income households spend a larger percentage of their wealth on lottery tickets than other households. One observation is that higher jackpots increase the "fun" of lottery gambling and richer individuals have a higher threshold for entry. Alternatively, richer individuals might have a better understanding of the fact that the expected value of a gamble increases with the jackpot size, and such individuals are more responsive to the effective price of a lottery gamble.

2.8 Impact on Consumer Behaviour

On analysing multiple sources of micro-level data, we see that household lottery spending is financed entirely by a reduction in non-gambling expenditures. The introduction of a state lottery is associated with an average decline of $46 per month, or 2.4 percent, in household non-gambling expenditures. There is evidence that in some ways, consumers, on average, appear to be making sound decisions with regard to lottery purchases, but that in other ways, they are not. Guryan and Kearney (2005) investigated whether consumers respond to the location of a winning lottery ticket. The sale of a winning lottery ticket at a store does not affect the likelihood that the retailer will sell a winning ticket in the future. Therefore, if fully informed consumers treat lottery tickets as purely financial assets, then store-level sales should not respond to such an event. However, weekly sales data from the full population of lottery retailers in the state of Texas reveal that between 2000 and 2002 retailers who sell a winning jackpot ticket experience relative increases in ticket sales of the winning game between 12 and 38 percent the following week, and that the sales response increases in the size of the jackpot. The random assignment of winning tickets to stores, conditional on contemporaneous sales, allows this subsequent increase to be interpreted as causally related to the sale of the winner. To the extent that the sales response reflects a belief that the store is "lucky", consumers are exhibiting irrational perceptions of randomness. If lottery consumers misperceive the probability of winning, they are in effect responding to the wrong price, and must forgo other consumption in exchange for the lottery tickets. Furthermore, they found that the increase in sales experienced by the winning vendor increases with the proportion of the local population comprised of high school dropouts, elderly adults, and households receiving public assistance. Therefore, if the response does reflect a mistaken notion, economically disadvantaged groups appear most likely to support it. The aggregate effect of state lotteries on consumer welfare is ambiguous. For those rational, informed consumers who derive entertainment value from lottery gambling or who benefit from the easy access to gambling, consumer utility is clearly increased. For those who are irrational or misinformed, welfare is potentially harmed.

2.9 Impact On State Government Revenue

All states use the profits from the state lottery operation as a source of revenue. Not only in the US but also in India, we find that the state government earning revenues from this, in states like Punjab, Sikkim, Kerala, etc. By the data we found that on an average, a dollar wagered on a state lottery game returns about 50 cents to players in the form of prizes and 30 cents of profit to the state, with the rest covering administrative costs. Lotteries' contributions to state budgets are actually quite modest. In 2001, the contribution of state lottery funds to total own source general revenues averaged 0.71 percent across the 37 states with lotteries. Contributions ranged from 0.28 percent in Montana to 8.27 percent in Delaware (U.S. Bureau of the Census, 2004).

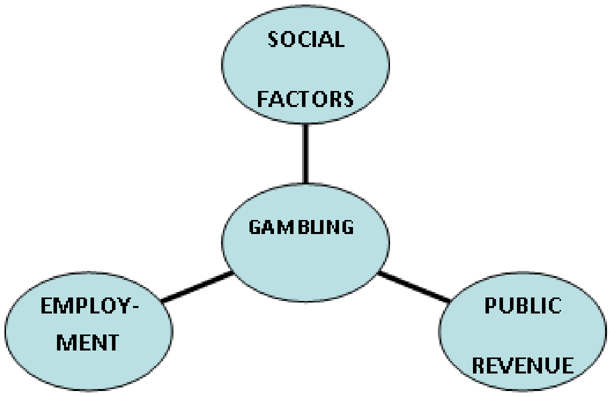
A consideration of the welfare gains or losses associated with winning the lottery is outside the scope of this discussion. Imbens, Rubin, and Sacerdote (2001) conduct an original survey of people playing the lottery in Massachusetts in the mid-1980s to estimate the effect of unearned income on economic behaviour. They find that "unearned" lottery prizes reduce labor earnings, with a marginal propensity to consume leisure of approximately 11 percent. They also find that after receiving about half their prize, individuals saved about 16 percent. Some evidence suggests that winners of exceptionally large prizes experience personal hardships, including divorce and depression. Of the 40 state lotteries, revenue from 10 is contributed to general funds and revenue from 18 is earmarked in total or in part for education. Other uses range from the broad (parks and rec, tax relief, economic development) to the narrow (Mariner's Stadium in Washington and police and fireman pensions in Indiana). Given the fungibility of money, many economists question whether earmarked money actually increases spending on the intended category of expenditures. However, there has been a sizeable public finance literature documenting the so-called "flypaper effect", whereby money "sticks where it hits". Recent work has investigated whether this appears to be true for earmarked lottery revenue.

2.10 Additional Issues

First, in addition to the distributional consequences of consumer spending on state lotteries, we tried to study the distributional consequences of state lottery revenue. For example, in those states that earmark lottery revenue for education, what demographic groups appear to benefit from any increase in education spending? Borg, Mason, and Shapiro (1991) used survey data from Florida to document that for most households the education subsidies paid for by the state lottery are larger than the cost of the lottery for the individual family. However, for the lowest income bracket, lottery expenditures appear to exceed received education subsidies. More general research on the full distributional consequences is needed. Second, the discussion of consumer consequences of state lotteries has focused on the effects for the consumers themselves. An additional concern is whether the individual gambler makes choices that harm those around him, in particular, other members of his household. Traditionally, economists have considered the family or household as a single unit that maximizes a common objective function subject to the family budget constraint. But recent evidence, in particular from the development economics literature, suggests that the household is a collective, not a unitary, entity and that expenditures depend in part on who controls the household income. If the members of the household do not share a common utility function, any increase in gambling expenditures might come at the expense of the well-being of those not in control of the household finances. More research on the intra-family externalities associated with lottery gambling is needed. More generally, additional research is needed on associated costly behaviour, including, for example, the incidence of financial distress and bankruptcy. Third, issues related to market structure are beyond the scope of this article, but should be considered in any normative analysis of the operation of state lotteries. As has been noted above, state lotteries operate as state monopolies. The state's take is much larger than the house advantage (defined as percentage the house takes out of a dollar on average) found in casinos. Competition from private lotteries or casinos could directly benefit consumers by compelling state lottery commissions to increase the pay-out on lottery gambles. A related issue is market competition across states. Observers have noted a "race to the bottom" among states to offer lottery games. This pressure manifests itself not only in the decision to implement a state lottery, but also to offer higher-priced instant tickets, introduce Video Lottery Terminals, and participate in bigger games, such as Powerball. Tosun and Skidmore (2004) investigate the effects of the introduction of state lottery games in neighbouring states on West Virginia lottery revenue. Data on lottery sales for all 55 counties in West Virginia over the period 1987 to 2000 suggest that lottery game adoptions in bordering states have had statistically and economically significant negative effects on West Virginia border county lottery sales.

Finally, an important policy consideration in the operation of state lotteries is advertising. Policy analysts study about who is targeted by state advertising campaigns and whose gambling behaviour is affected. A main justification for the state's role as monopoly provider of lotteries is "protection" of the public. But if states are setting the price of a lottery gamble (where price is defined as the ticket price minus the expected return) relatively high, innovating with products that are deemed most regressive and addictive, and aggressively advertising their product, then it what sense is the state "protecting" the consumer? And if the state's role is not protective, but rather profit-driven, wouldn't consumer welfare be enhanced by allowing private competitors to enter the industry.ng in 15 states and an additional 356 Native American casinos, operated by 222 tribes, in 30 states.

3. Analysis



Our main aim of this study is to decide all the factors that are important to be considered when studying the effect of gambling in any country. If gambling is legalised in India, for instance, what are major factors on which the policy-makers must look into before deciding to legalise it or not. Since all of the studies done till now are based on data from US statistics, we have a generalised model for all countries.

Social Factors

1) Mortality Rate - Theoretically, the availability of casino gambling may increase substance abuse and suicidal thoughts and so could increase mortality rates. On the other hand, to the extent that casino gambling increases employment opportunities and income, improved economic well-being could lead to a decrease in mortality.
2) Crime Rates - Of all the potential social costs of gambling, the link between casinos and crime has received the most research attention. It is very difficult to identify a causal link from casinos to problem and pathological gambling and associated consequences.

Employment

As a consequence of legalisation of tribal gambling the Tribes frequently refer to casinos as the "new buffalo," meaning the new source of economic sustenance for their communities. The tribes point to repaired infrastructure; diversifying economies; rising employment; augmented health, housing, education, and social budgets; greater indigenous language retention; and generally renewed community vitality.

4. Public Revenue

Casino businesses are subject to taxation and therefore have a direct impact on public revenue. Casinos might indirectly affect public revenue as well. Insofar as casinos generate additional business income, they might indirectly increase other forms of tax revenue. Insofar as they cannibalize sales from other businesses, they might decrease net tax revenue.

5. Conclusion

The obvious economic winners are the businesses themselves and the consumers who benefit from consumption of their product. And finally, a major issue common across all forms of legalized gambling is the efficiency costs associated with the established market structure. Any explicit limitation on entry into a market imposes a deadweight economic loss on society. Future research should investigate the consequences of this market structure for consumers. Many important economic issues remain to be studied and additional rigorous research is needed. The issue of substitutability across gambling types has been widely addressed in the literature, but is still not entirely understood. There appears to be some evidence of substitution, but recent history suggests that Americans gamble in increasing numbers and increasing sums. How much of an increase in gambling will we experience before reaching an equilibrium level? Is there an optimal level? Issues related to market structure, including the optimal level of regulation, need to be addressed. How much does regulation of one gambling industry drive demand for another? Is regulation an effective tool for encouraging less costly or more beneficial forms of gambling? The ultimate policy question in the debate over legalized gambling is from a social welfare point of view, to what extent the increase in consumer utility and public revenue offsets the associated social costs.

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