



Land-based gambling bans do not impact crime rates: A study using the synthetic control method in the Czech Republic

What this research is about

Many studies have reported a link between problem gambling and criminal activity. Most of the crimes linked to problem gambling are non-violent. But studies that examined the prevalence of and motivations behind criminal activity in association with problem gambling often have limitations. For example, many studies have a small sample size (i.e., a small number of participants) and did not include control groups. These limitations can lead to biases in the results and prevent conclusions about the direction of the cause.

The purpose of this study was to examine whether a land-based gambling ban has an impact on crime rate in the Czech Republic. The researchers used the synthetic control method, a new method for evaluating the effect of an intervention (e.g., a gambling ban). The researchers argued that this method would help to address some of the limitations commonly seen in previous research.

What the researchers did

The synthetic control method involves the creation of a synthetic untreated control group that closely matches the treated group before the intervention. The data consist of a treated unit and a number of untreated units. The control group is created as a weighted average of these untreated units.

The treated group for this study included four district cities in the Czech Republic that banned land-based gambling during or after 2017 through the generally binding regulation (GBR). The control group was created by combining 11 Czech district cities that do not currently have a ban in place and had land-based games in operation from 2013 to 2021.

What you need to know

The purpose of this study was to examine whether a land-based gambling ban has an impact on crime in the Czech Republic. The researchers used the synthetic control method in this study. In this method, there is at least one treated unit and a control group that is created as a weighted average of several untreated units. The treated group for this study included four cities in Czech Republic that banned land-based gambling during or after 2017. The untreated group included 11 cities that do not currently have a ban in place and had land-based games in operation from 2013 to 2021. Using a crime index which included updated data on crime every 6 months, the researchers obtained 17 observations for each city. The researchers divided the observations into a pre-treatment period (up to the beginning of 2017) and a post-treatment period.

By using the synthetic control method, a close match could be established between the three treated cities and the control cities in the pre-treatment period. The researchers found that all treated cities had about the same crime rate as they would have without the ban. These cities had roughly the same crime rate after they introduced a land-based gambling ban as the control cities without a ban. Thus, a land-based gambling ban appeared to have no effect on crime rate.

The researchers measured crime using the crime index developed by Otevřená společnost, o.p.s. initiative. This crime index reflects the number of crimes per 10,000 inhabitants in an area. The data used to create this index were drawn from a database

of all crimes committed at the level of individual police departments.

The researchers controlled for the potential effects of unemployment, average wage, education, and population density on crime rate. They obtained the data for these variables through the Czech Statistical Office.

Data were available for each variable at 6-month intervals. This meant that the researchers had 17 observations for each city. The researchers divided the observations into a pre-treatment period (8 observations until the start of 2017) and a post-treatment period (9 observations).

What the researchers found

The researchers found that by using the synthetic control method, a close match could be established between the three treated cities and the control cities in the pre-treatment period (before the land-based gambling ban). In the post-treatment period, all treated cities had about the same crime rate as they would have without the ban. These cities had roughly the same crime rate in the years after they introduced a land-based gambling ban as the control cities without a ban. Therefore, a land-based gambling ban appeared to have no effect on crime rate.

According to the researchers, the lack of effect might have been because of the growth of internet gambling, which supplies games that are close substitutes to land-based games. Furthermore, people may commute to other cities without a ban to gamble or may resort to the black market for gambling.

How you can use this research

Researchers can use this study as a guide for undertaking further studies related to gambling using the synthetic control method.

About the researchers

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