GETTING RID OF CASH REDUCES CRIME: Evidence from Uruguay

New research finds evidence of a significant reduction in crime associated with the elimination of cash payments in Montevideo, the capital city of Uruguay with 1.5 million inhabitants and roughly 20,000 US dollars of annual per capita income.

The study by **Néstor Gandelman**, **Ignacio Munyo** and **Emanuel Schertz**, which will be presented at the annual congress of the European Economic Association in Manchester in August 2019, analyses the aftermath of a major public alarm provoked by the murder of two workers in gas stations. The Uruguayan government regulated the payments in cash in all gas stations of the city to prevent crime. Since 15 May 2016, people cannot pay in cash in gas stations between 10pm and 6am.

The study presents evidence that the policy of cash elimination reduced by between a half and a third the robbery rate at night in areas of the city close to the gas stations. Offences that do not have a financial motivation such as domestic violence show no effects of the policy.

In Uruguay, gas station workers are the only ones allowed to manipulate pump machines (there is no consumer handling) and the payments. The price of oil is fixed by the government and it is the same in all gas stations. The imposed legal restriction eliminated a potential daily loot of robbing a gas station of between 3,000 and 5,000 US dollars.

The researchers' difference-in-differences estimates show large and statistically significant effects, robust to alternative definitions of the control groups and estimation methods. In their estimates, they combine information on the location of gas stations, others cash handling stores and artificially created control areas with daily geo-referenced information on robberies and domestic violence.

The main contribution of this research is given by the data and empirical strategy that allows a precise estimation of the effects of cash elimination on crime. Before this study, this was only done using indirect ways.

Naturally, the reduction of crime in certain areas at night without available cash may be compensated by increases in crime in different areas of the city and at other times of the day. The authors explore geographical and temporal displacement effects and do not find supportive evidence of neither of them.

Thus, according to their results, the elimination of cash payments on certain locations and at certain hours of the day produced localised reductions in crime that were not offset by increases in nearby or other moments of time crime. This implies that the policy's net effect on crime was positive.

The rationale behind these results is straightforward. For a given level of the expected costs of crime – the same probability of apprehension, probability of prosecution given apprehension and the probability of sentencing given prosecution – the elimination of cash payments reduces the potential benefit of criminal activities.

Besides this direct effect, there is also an indirect positive externality in nearby locations since criminals that were heading to a certain gas station might also rob consumers passing by. Therefore, the elimination of cash available in the streets reduces the incentive for criminal activities not only in the gas station but in the area as well.

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