

# Referee report on:

[Food & Diet, Alcohol](#)



Referee Report on: Do Consumers Exploit Precommitment Opportunities? Evidence from Natural Experiments Involving Liquor Consumption Authors: B. Douglas Bernheim, Jonathan Meer, Neva K. Novarro Published by: NBER Working Paper Series, Working Paper No. 17762 Student: Congying Hu Master Candidate in Economics Department of Economics Northeastern University Boston, MA (617) 794-6623 hu. c@husky. neu. edu I. Summary of the Paper The authors are doing research on the relationship upon the concepts of time inconsistency, time consistency and a demand for precommitment technology. By definition, it is saying that time inconsistency is about a decision maker's preference, at one point in time, is inconsistent with a preference at another point in time. From the standpoint of the authors, a growing number of consumers should sufficiently self-aware to notice their time-inconsistent tendencies will verify an upward demand for precommitment technologies. To approve this, the authors try to achieve evidence with reference to the extent to which consumers of addictive substance exhibit a demand for precommitment devices. The method used specifically in this paper, referred as the availability strategy, is to limit the availability of a problematic good by not maintaining an easily accessed supply. Precisely, the authors examine the impact on liquor consumption of a collection of natural experiments on state-level policy changes that altered liquor sales hours on Sundays either for on-premise (in restaurants and bars) or off-premise (through liquor and package stores) consumption, i. e. "blue laws", with the hypothesis that the implementation of blue laws should play a significant role in lowering aggregate liquor consumption. However, the authors find no meaningful demonstration that the precommitment devices

contribute a lot to decreasing aggregate liquor consumption. The authors adopt the econometric method of estimating panel regressions with state fixed effects and year effects using a set of data collected from 1970 through 2007 so as to get access to compare the changes over time in liquor purchases for states that intensified regulations to the changes for states that did not. Accordingly, with all experimental results, the authors conclude that consumers make response to on-premise and off-premise distinguishingly. Consumers construct a preference to increasing their liquor consumption in expanding Sunday on-premise sales hours as opposed to constructing a similar liquor purchases pattern regarding shorted Sunday off-premised sales hours. In addition the authors also have significant findings with respect to tax policy and public health which indicate that states with laxer blue laws are likely to raise tax revenue but may also extend alcohol-related social costs.

II. Evaluation The main strength of this paper is the subject selected, precommitment device, which has been playing an increasingly important role in strongly connecting with self-control. Precommitment is defined as a strategy that a party to a conflict can enhance its position by cutting off some options to make its threats more credible. Accordingly, the theoretical background of this paper is strong and clear. The authors could derive internal logic hypothesis from it. In this paper, the authors effectively frame an analogy structure, setting state-policy changes on Sunday liquor sales hours as a precommitment device to make the threat of downward consumption of liquor for alcoholics more credible. If the model used in the paper progressively obtained designed results, liquor consumption would be lower. Consequently, precommitment

could be widely used in a variety of issues concerning self-control over addictive substances such as cigarettes, drugs and gambling. However, this paper fails to make a significant indication certifying the authors' hypothesis. As is mentioned by the authors, a collection of other authors, such as Becker and Murphy (1988), Gruber and Koszegi (2001), Bernheim and Rangel (2004), and Gine, Karlan, and Zinman (2010), has begun undertaking relative research recently, but surprisingly finds little proof that people actually value and exploit precommitment opportunities. The authors are doing similar research, but unexpected, achieve no progress. Thus, generally speaking, this paper does not play a sufficiently important role in moving corresponding research area forward. Additional strength of this paper is the data from 1970 through 2007 arranged by the authors has been perfectly used in panel regression and is consistent with the reality. In addition, the authors make a strong result analysis combining with detailed introduction regarding data collection and variables settlement. Taking variables settlement as an example, the authors successfully separated cross-border effects from the impact on consumption among a state's residents by designing two sets of variables, inflows and outflows of consumers for on-premise and off-premise. As for weakness of this paper, there might be some specific problems need to be taken into account by the authors. The primary weakness is referring to a collection of natural experiments. As is well known, natural experiments are observational studies based on a random sample, which indicates that all samples are supposed to be in the same condition regarding the independent variable with other control variables being unchanged, otherwise it would lead to sample

selection bias. Indeed, the process of sample selection issues in sample selection bias. As demonstrated in this paper, all sample states are selected randomized with a variety of original hours before amendment. Since original hours are different, the objective of restriction changes on liquor sales hours would be distinguished and were not only aimed at affecting consumers attitudes toward liquor drinking among states, for instance, some of sample states consider about releasing pressure of labors who are working in liquor store by cutting off sales Sunday off-premise hours since those stores already have considerably high sales hours before amendment in statutes compared to other states. Hence, even if the authors obtained coincidental conclusion, it was unreasonable to consider the designed independent variable as causal effect on liquor consumption. As there is sample selection bias, the econometric regression model used in this paper is required to specify a series of other control variables such as household income, education background, health situation, race, which might consist of a collection of casual effects on aggregate liquor consumption. From my point of view, another weakness that could be strengthened with more analysis is the loose link between restrictions on Sunday sale hours and a precommitment device. Beyond all doubt, the concept of time inconsistency has been becoming a central topic in behavioral economics, which reveals that people should be self-aware an increasing demand for precommitment device, however, the precommitment device ought to be strong enough to expect people to change their attitude toward liquor consumption. Solely constructing limitation sales hours on Sundays, on the contrast, may raise liquor consumption on other week days. Similarly, the authors also mention

that time-consistent consumers should respond to off-premise restrictions by carrying “ inventories “. III. Information for the authors First of all, I would like to recommend a relative precommitment device adopted by China government which aims to take control over traffic accidents and in the other hand, contributes a lot to lower liquor consumption. The government publishes a series of laws and regulations considering severe punishment and defining the new decision criteria on drunk driving, that is driver’s blood alcohol content greater than or equal to 80mg/100ml. Accordingly, drunk driving standard punishment is administrative detention for 15 days, a fine of 1, 500 yuan, suspension of driver license for 3 months, and recorded 15 points. It can be seen that such precommitment device is sufficiently strong that indeed accomplishes meaningful success regarding considerably decreasing traffic accidents. It can be also taken into consideration with respect to affecting people’s attitudes toward addicted liquor drinking. Since cars have been playing a growingly necessary role in people’s daily life, alcohol drinking has to be ceased unless reaching destinations without driving a car. Thus, a hypothesis concerning the relationship between restrictions on drunk driving and a demand for precommitment device could be conducted. For smaller issues, I have confusion upon two points in this paper. First is that one of the reasons why the authors focus on liquor rather than wine or beer: that the self-control problems commonly associated with alcohol consumption are most prevalent for liquor. Why do alcoholics prefer more to liquor as opposed to wine or beer? At a minimum, I have a few friends who are addicted to all categories of alcoholic, not only liquor but also wine and beer. Second is that a statement concerning alcohol tax rates

that if legislatures relax Sunday sales restrictions with the aim of increasing tax revenues, they may well raise tax rates at the same time. If the hypothesis that Sunday sales hours affect liquor consumption was correct, tax revenues could be raised by only adding Sunday sales hours without raising tax rates, because raising tax rates might, in contrast, decrease liquor consumption and accordingly, fail to increase tax revenues.