Written Exam Economics Winter 2017-2018

Applied Economics

15 January 10:00 – 16 January 10:00

This exam question consists of 2 pages in total

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by "eksamen på dansk" in brackets, you must write your exam paper in Danish.

If you are in doubt about which title you registered for, please see the print of your exam registration from the students' self-service system.

The paper must be uploaded as <u>one PDF document</u>. The PDF document must be named with exam number only (e.g. '1234.pdf') and uploaded to Digital Exam.

Focus on Exam Cheating

In case of presumed exam cheating, which is observed by either the examination registration of the respective study programmes, the invigilation or the course lecturer, the Head of Studies will make a preliminary inquiry into the matter, requesting a statement from the course lecturer and possibly the invigilation, too. Furthermore, the Head of Studies will interview the student. If the Head of Studies finds that there are reasonable grounds to suspect exam cheating, the issue will be reported to the Rector. In the course of the study and during examinations, the student is expected to conform to the rules and regulations governing academic integrity. Academic dishonesty includes falsification, plagiarism, failure to disclose information, and any other kind of misrepresentation of the student's own performance and results or assisting another student herewith. For example failure to indicate sources in written assignments is regarded as failure to disclose information. Attempts to cheat at examinations are dealt with in the same manner as exam cheating which has been carried through. In case of exam cheating, the following sanctions may be imposed by the Rector:

● 1. A warning

● 2. Expulsion from the examination

● 3. Suspension from the University for at limited period or permanent expulsion.

The Faculty of Social Sciences
The Study and Examination Office
October 2006

The exam consists of three questions. Please answer all of them.

1. Please provide an interpretation for the LATE estimator obtained from a fuzzy regression discontinuity approach (that is, a regression discontinuity approach in which there is no full compliance).

2. Consider that you want to estimate the impact of drug cartels on socioeconomic outcomes using data at the municipality level from Mexico (2400 municipalities available). You have data on socioeconomic outcomes and cartel presence at the municipality level in 2015 (a 0/1 variable)

   Given that cartel presence may be endogenous in a model for current socioeconomic outcomes, you want to address this potential endogeneity concern by using an Instrumental Variable approach.

   In order to do so you want to use Chinese presence in 1930 as an instrument for cartel presence today. Fortunately, there is information on Chinese presence in 1930 (the number of Chinese located in the municipality).You have already checked that there is a strong and significant correlation between Chinese presence in 1930 and cartel presence today (that is, the instrument is relevant). Please write formally the empirical strategy, explain which is your identification assumption, and discuss the validity or not of such assumption. If possible, provide a strategy to check the validity of the identification assumption.

3. The government of Argentina is building a market to trade fruits and vegetables in Trelew (Patagonia). All producers in the country can use the facility (the market), if they wish. Producers of vegetables and fruits are in general small producers (meaning that only producers from the surroundings would benefit from the new facility. Provide a non-experimental design that allows you to identify the causal impact of the facility on production. There is data available on production both at the farmer level and at the province level.