Open and Unstructured Assignment in International Economics

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Abstract
This project introduces a new mandatory assignment to the course Advanced International Trade. The assignment is designed to be open and unstructured. The idea behind the design is to challenge students in new ways and strengthen their skills in an applied policy relevant setting that complements student learning in other areas of the course. A "revise and resubmit" mechanism was incorporated in the assignment to enhance the learning experience and complement the open and unstructured format.

Background and Objective

The aim of this project is to introduce a new mandatory assignment in the class *Advanced International Trade*. The class is an elective class at the master's level. Given that the class is an elective class, it is relatively small, focuses on recent advances in the field and is close to the research frontier.

In previous years, no mandatory assignments or problem sets have been a part of the course. To provide students with applied and practical skills on the subject, the students were asked to write a short policy report that provided them with hands-on experience with a practical assignment that could be done at a ministry, policy institution or in the private sector were analysis of potential effects of trade agreements or economic integration may be needed.

The assignment should hence improve student learning and provide them with skills and competencies they would not gain in other more traditional written exam settings.

1 Background

Imaging you are working as an analyst at the Danish Ministry of Industry, Business and Financial affairs. You are assigned the task of evaluating the expansion of the European Union by country/region X. You should choose country/region X independently, and it can be any country/region in the world. You should rely on the Gravity Equation and related literature when writing your report. Note that your employer does not know this framework.

2 Your Task - A Gravity Report

What are the expected effects on trade for Denmark (and the European Union) of adding country/region X to the common EU market? You should base your conclusion on empirical (regression based) evidence from similar expansions. The report should be roughly 1500-2000 words + graphs, regression result table(s) and references.

Figure 1: The assignment (main body).
The assignment, was intentionally both unstructured and open. The idea behind having the assignment *open* was to give students flexibility and freedom to steer how they approach the assignment, both in terms of data, and structure. See also Box 1.

- **Main deadline:** The deadline of this assignment is **December 3rd.** Turn in the assignment via Absalon. Please include your code files as well.

- **Revision deadline:** You will get feedback on the report a few days after the deadline. You will then get one week to make the necessary adjustments. If only minor adjustments are needed, then a revised submission may not be needed.

Figure 2 : Revise & Resubmit
The feedback mechanism introduced in the assignment.

The Policy Report
Implementation

The course is research-oriented with the goal of introducing students to the latest and most important research in international trade. The idea behind the assignment is to provide students with an opportunity to work independently on an assignment that gives them practical hands-on experience to apply relevant theories from the class to new problems or policy proposals.

The topic of the assignment was a hypothetical situation where students should evaluate the potential impact of adding a country (or region) to the common EU market. The importance such skills and being able to investigate such questions has been highlighted in recent years with BREXIT and the US/China trade war.

Given that this is a masters level course I chose to construct the assignment as both open and unstructured (see figure 1). It is *open* as students are free to find their own data and formulate the exact question being analyzed; it is *unstructured* as students are free to approach the assignment as they see fit and only broadly guided as they should use the Gravity Equation framework (standard in the field). The students are given some informal guidance, tips and suggested sources of data and similar policy reports.

Personalized Feedback
The Feedback Design
For the assignment, a structure of individualized feedback was introduced. The students were instructed to submit their assignment before a pre-specified deadline. However, they were informed that they would receive individualized feedback on their assignment which they (potentially) should incorporate into their assignment and resubmit. See figure 2.

Given the unstructured/open nature of the assignment the *individualized* feedback could be particularly valuable in improving the student work. This structure would make the assignment more challenging, but also provide a practical and realistic experience. Note that if students received only minor comments a resubmission would not be needed. Hence, the feedback design not only provided feedback but also asked them to implement and respond to the feedback to improve their work.

Implementation of the Individualized Feedback
In the course all students handed in the assignment (N=12). While most students performed well on their initial attempt, all students were asked to revise and resubmit their assignment. The students had one week to respond to the feedback and submit a revised version of the assignment. In general, the students responded well to the feedback and substantially improved the quality of their work in their final submission.

All students that handed in their initial assignment also handed in a revised version.

Box 1: Practical Details

- The assignment was introduced in the fall of 2021.

- Students worked on the assignment individually and had free choice of software and data sources. Given inspiration from similar reports.

- A short demonstration with practical assistance was conducted in class to ensure focus on the assignment itself rather than technical details of statistical programs. Particularly aimed at students that would otherwise struggle with the technical aspects of the assignment.

- All code should be submitted along with the assignment. Many students used Stata while some used Python.

Feedback from Students
Data collection
To collect feedback and improve the assignment for future iterations of the course, I interviewed several students regarding their experiences. The interviews were conducted either in person or via e-mail. Due to the small sample of students interviewed no formal statistics are provided. The overall impression from the interviews is instead summarized below and some examples of comments are shown and discussed. The students were asked to give feedback on two main aspects. *First*, the assignment format (open and unstructured) and *secondly* the individualized feedback mechanism. In addition, general feedback on the assignment was encouraged. See Box 2 for some feedback examples.

Feedback: Open and Unstructured format
Overall, the format of the assignment was well received. Student did feel that the level of difficulty was appropriate yet challenging for a master's level course.

- A student noted that while they appreciated the open and unstructured format of the assignment, it was unfamiliar. The student even said that since more independent work and decisions were needed the assignment was considerably more difficult. Hence, the assignment was more realistic and challenged the students in new dimensions.

- Other students noted that while the assignment was more difficult, it was appropriate for a master level class as they should be able to approach open ended assignments. Example of related feedback: *"Finally, I believe that, as students at Master Level, we should be able to deal with more flexible and open assignments as we should have developed the skills needed to navigate thought more complex structures and not only answering close questions."*

Feedback: Revise and Resubmit (R&R) format
The students in general appreciated the R&R format of the assignment. A student for example found it very helpful, especially since the feedback was individualized on the main elements that needed to be improved rather than all details that *could* be improved.
- *"For me, the feedback matched my skill level, and the fact that I could ask questions on the feedback and get clear answers and tips, meant that I learned new things from it (e.g. how to better interpret my regression results)."*

Box 2: Example of Student Feedback

- Important to state that the assignment was unstructured. Avoided confusion and uncertainty.

- Harder assignment. Students are required to make more decisions than usual. Another student found it overwhelming at first.

- Some students noted that the assignment was not related to the final exam.

- Feedback mechanism made a lot of sense and resembled the working environment. Potentially add peer feedback.

- A student for example noted that: *"In the working environment, for example, it often happens that papers and notes are drafted and then revised in detail multiple times by more people, therefore I feel this was a good exercise in this sense."*

- Not all students were as favorable towards the format. One noted that: *"Personally, I did not really care about revising my assignment, even though it might have helped me take in the feedback more than I usually would have. I remember thinking the feedback was very thorough which was nice. I didn't really care much about the final submission because I already felt like I had spent quite some time on the assignment the first time and I felt like I would pass even though I did not change much in the final submission."*

Future Development and Reflections
For future iterations of this course, I intend to both alter and expand the assignment. Below I list some reflections and discuss future developments based on this work.

- First, introduce the assignment earlier as well as focus more on the applied Stata session.

- Perhaps the assignment can be expanded to focus on other topics within the course.

- An earlier step of *peer feedback* may be useful. The students are more familiar with that format than the R&R format applied in this assignment. A potential hybrid of the two may be appropriate where students provide *detailed* peer feedback while the teacher gives high-level overall feedback on all drafts.

- A student also noted that the relation between the assignment and the final exam was limited. While this is an intentional feature, it may be instructive to highlight this in the assignment. The assignment is intended to enhance student learning on the topic that should complement the more traditional written exams.

- One reflection on the initial work of the students was the informal use of references. Students tended to reference policy reports in text but not a formal bibliography. For future iterations this may be clarified in the initial assignment.