

31E11100 - Microeconomics: Pricing

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Case assignment (in teams of max 4 students)

Objective:

The purpose of the assignment is to pick a real pricing application and analyze it utilizing the lessons from the course. The objective is to learn to connect theoretical principles to applications. The assignment is open-ended, so you will have to search independently for more information about the application and use your own judgement in interpreting the pricing problem and choosing the right model frameworks to analyze it. Another objective is to learn to organize your work in a team.

Instructions:

This is a team assignment. We will form the teams during the first week of the course (Unless you choose the format of MSc thesis topic proposal, in which case you work alone; see the end of this document).

The task for the team is to prepare a report, where you analyze a real pricing application. A suitable length of the report is 8-10 pages.

The first thing to do is to choose the topic. This should be some real pricing application. At the end of this document, there is a short list of example topics that you can use. However, don't be constrained by those examples. I strongly encourage you to come up with a topic of your own, in which case you can send the title with a short description to the instructor for approval. (Coming up with a good topic of your own is definitely a plus in the grading).

The report should analyze the problem and demonstrate that you understand the pricing problem in question and can connect it to some theory. Try to come up with interesting economic questions that you can relate to the material of the course. Ask yourself questions such as: What kind of a model captures the essential feature of the application? What is the objective in pricing? What kind of pricing practices would make sense? What kind of pricing do we actually see in practice? If there is a discrepancy between theory and reality, what could explain this?

It is advisable to search and read additional material on your topic. This could include internet sources, newspaper articles, or scientific articles. Please use appropriate citing for the references that you use.

Return your report at latest on October 23. Return as a pdf-file to the assignment return box in My Courses.

Grading:

The assignment will be graded on scale 0-20 (i.e. max 20 out of total max 100 points of the course). I will take into account:

- How well you understand the key pricing issues in your application.
- How well you understand the theory that you are applying.
- How well the chosen theories fit the application.
- Clarity and overall quality of reporting.

Examples of topics:

Here is a list of example topics. To help you get started, there are some suggestions for the type of questions you may consider. However, do not be constrained by those.

1. Pricing of parking:

San Francisco has adopted an innovative pricing policy for parking (see <https://en.wikipedia.org/wiki/SFpark>). Find out about the San Francisco pricing experiment, and discuss the pricing of parking in densely populated cities more broadly.

It may be a good idea to start with a simple partial equilibrium analysis to make sense of the problem of pricing the parking for a monopolist supplier (e.g., a city). You might at least first assume that the supply is fixed, i.e. the available parking space is given. What kind of objectives would the city have in terms of pricing? What kind of welfare implications would non-optimal prices have? Are there important externalities involved? If so, how should they be taken into account? Can you think of aspects of price discrimination that would be relevant for this application?

How should pricing account for varying demand across space and time? What is feasible at current technology, and how could new technological solutions affect pricing?

Suppose that the city can now also adjust the supply of available parking space. What would be the right principle for choosing the amount of parking space and pricing jointly?

2. Music streaming and pricing

Online streaming has transformed the music consumption within the past decade or so. Discuss this change from the point of view of pricing. Questions that you might consider, among others:

What were the key aspects of pricing before streaming, and what are they now? What kind of pricing practices do we currently see? What alternative pricing structures would be possible? What could be reasons for the industry to adopt the practices that we see? Do we see something that can be understood as price discrimination or bundling?

Consider also the welfare implications of the technological change in the industry. Who do you think are the winners and losers? What kind of implications could there be for the supply of new music? Are there differences in pricing between the music industry and movies (another sector where streaming has taken over)? Can you think of reasons for such differences?

3. Pricing of spectator events:

Discuss the principles of pricing tickets for spectator events. You may discuss the topic generally, or you may pick a specific case (for example, how was ticket pricing organized in the FIFA world cup?). Some aspects you may want to take into account (not to suggest that you should limit to these, of course):

- What is the cost structure of the organizer for an individual event?
- What to do with demand uncertainty? For example, in sports tournaments, there are uncertainties in who will be playing against whom, what will be the important matches, etc.

- What is the objective of the event organizer? Maximize maximize profit, maximize attendance, or what?
- Is allowing re-sale a good idea? Should one care about speculators?
- What kind of price discrimination is there? Why?

4. Pricing of electricity

Electricity markets are currently in turmoil in Europe. What is going on? Find out how electricity markets are organized and explain how the prices are determined there. You could for example focus on the Nordic electricity markets. How is the market place organized and why are the prices so high at the moment?

To start the analysis, it would be useful first to think carefully about the nature of electricity as a commodity. How is the wholesale market price for electricity determined and why is it changing so much over time? How are different production technologies related to the price formation? What kind of retail pricing structures are offered to individual households? What kind of implications do such different pricing structures have for the consumption choices and functioning of the markets? How is pricing different for electricity as a commodity and for transmission of electricity? What is the role of the forward contracts in the market? Is the use of market power a potential problem in electricity markets?

This is a very rich topic and could be a topic for a very broad analysis. Here you can choose your angle on the topic but focus on things that are essential for understanding price formation in the market.

Alternative format: M.Sc. thesis proposal

If you are thinking about writing your M.Sc. thesis on a topic related to pricing, you may write a thesis topic proposal as your Assignment. This is an alternative format and meant only for independent assignment (no teamwork here). Contact the teacher if you want to do your assignment in this format.

Start by picking a research question that relates to pricing and look for some key literature on the topic to find out more about it. Explain the institutional features of the market that you have in mind and identify the relevant economic questions. Come up with an economic model that captures at least some of the key features of the market (this could be a text-book type of model that captures the main features of the market, such as monopoly model of price discrimination, oligopoly model of homogenous goods, etc.). Discuss the insights that this model gives about the market that you have in mind and point out potential shortcomings of the model. If you plan to do an empirical thesis, explain the data that you plan to obtain, and how you plan to use it. If you plan to do a theoretical thesis, explain the modeling that you plan to do (e.g. how to extend the basic model to better capture some feature of the market), and the type of results that you might hope to obtain.