

This is the first of two home assignments you are asked to solve during this semester. You have until April 11, 2018, 23:59 to submit your solutions to this home assignment. Submit your solutions (in .pdf, typed digitally or written *legibly* and scanned) in the appropriate field of the section 'Study group roster' in the SIS. You can obtain up to 10 points for this assignment, 2.5 points for each exercise. The home assignments are individual work. Base your answers on what we have covered in class and the course textbook. In case you have any questions, contact Miroslav Palansky at miroslav.palansky@fsv.cuni.cz.

Problem 1

For the following areas, give at least one example in which the government is involved as (i) a producer and (ii) a regulator. (There are five areas and two roles, therefore you should list at least 10 examples. You might want to construct a table for the solution to this problem.)

- a) education
- b) transportation
- c) insurance markets
- d) financial markets
- e) energy

Problem 2

We saw in a lecture that sometimes, voters' preferences might not be single-peaked, and we illustrated this on the problem of education. Describe another, different real-life situation where preferences of (at least some) people are likely to be multi-peaked and explain why you think so.

Problem 3

Imagine a hypothetical world in which asteroids are a real everyday threat¹. They could be relatively small, but could cause fatal damage, even destroy a whole building. They would fall from the sky irregularly and unexpectedly and there would be only very limited ways to fight this phenomenon, because the technology is not advanced enough.

¹By the way, this is not as far-fetched as one might think - see [this Wiki page](#)

- a) What would be the problems when deciding how to finance anti-asteroid policy? State the reasons for your arguments. Focus on the nature of the good represented by anti-asteroid defense mechanisms.
- b) Explain why NASA spends so much money² on research into ways to deflect or neutralize asteroids that risk collision with Earth. (Hint: take a look at Chapter 6 of the course textbook.)

Problem 4

In the elections to the Chamber of Deputies in the Czech Republic, we use the d'Hondt method to calculate mandates that each party will obtain; a system that disproportionately benefits parties that obtain a lot of votes.

- a) What is the main argument for giving such preferential treatment to more successful parties?
- b) The Czech Pirate Party has announced last week³ that they will be pursuing a change in the mandate calculation system towards a more equitable approach, in which all parties would need the same amount of votes to obtain one mandate. Take the results⁴ of the latest election to the Chamber of Deputies which took place in October 2017 and model what this would mean for the distribution of mandates among parties. Which party would lose the most mandates, and how many? Which party would gain the most mandates, and how many?

²And it is a lot: see [this news article](#).

³A news article available [here](#) in Czech and [here](#) translated by Google into English.

⁴The results are available for example [here on Wikipedia](#).