International trade: problem set 2

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1. Consider the following gravity model for international trade

$$T_{ij} = \alpha \frac{M_i^{\beta} M_j^{\gamma}}{D_{ij}^{\theta}}$$

   Explain how size M and distance D are related to trade flow T.

2. Let's say that we are interested in estimating the model given under 1. How would you do that?

3. Briefly discuss which factors influence the effect of distance on trade flows.

4. The table below indicates trade relations between a number of countries, where a 1 indicates that the two countries trade and 0 if they don't. As you can see, China trades with both Denmark and Belgium. Which country-pair do you think has the largest trade flow?

	Belgium	China	Denmark	Estonia
Belgium	-	1	1	0
China	1	-	1	0
Denmark	1	1	-	1
Estonia	0	0	1	-

5. Does an increase in Chinese GDP affect Estonia? Explain why or why not.

6. Canada and Australia are similar countries in terms of population size, institutions, and culture, yet Canada's trade to GDP ratio is about 17 percentage points higher than that of Australia. Which factors could explain this difference?

7. Brazil and Mexico have different trading patterns; where Brazil trades equally with the US and the EU, Mexican trade with the US is much larger than that with the EU. Can the gravity model help in analysing this difference?

8. What is the 'border effect'?

9. Some economists have argued that leaving the European Union could be beneficial for the United Kingdom due to a increase in international trade. Discuss this prospect.