Revision of trade topics

1. Ricardian model

The production data of a two-country world economy is given by the table below. Calculate the production surpluses that can be achieved through specialisation and the mutually beneficial relative price range (when the relative price of cars is given in terms of shoes)! (4 points)

country	production data		prod. in autarky	
	car	shoes	car	shoes
Italy	10 hour/u	4 hour/u	28 units	40 units
Germany	6 hour/u	3 hour/u	40 units	60 units

2. Tariff analysis

A good is traded between two countries. The domestic supply and demand of the good in Country I: D=1000-0,5P; S=0,5P-400; in country II: D=700-0,25P; S=0,25P-300.

a) Derive the import demand and export supply functions!
b) What is the price and traded quantity of the good?
c) What would be the world market and the domestic price of the good, if a 90 unit specific tariff was introduced in the importing country?
d) What are the costs and benefits of the tariff?
e) What is the net welfare effect?

International factor movement

1. The marginal product of labour in country A is MPL=5000-0,0002L. The partner country (B) uses the same technology, and has the same amount land available. Country A has 15 million units of labour, country B has 5 million units.

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   a. Describe the common labour market of the two countries with a graph!
   b. What is the real wage and the value of production, if the labour market of the two countries is closed?
   c. What are the changes in the real wage, production values, and the factor incomes, if the free flow of labour is allowed?

2. From the cases listed above, which are the ones in which the intertemporal production possibilities are shifted towards current consumption, and in which ones toward future consumption?
   a. Argentina and Canada in the 19th century, after the regulatory changes allowed the mass immigration of Europeans.
   b. Saudi-Arabia or Kuwait, country that try to exploit there oil reserves.
   c. Norway, where a large stock of raw material resources were found, the exploitation of which require huge investments.
   d. The United States that is losing from its dominance in technology and production.
   e. South-Korean and Chinese Taipei, which countries are catching up fast to the developed world thanks to the fast growing industrial production and exports.

Exchange rate regimes

1. The forint is pegged to the Euro at 250 Ft/€, with a horizontal band of ±10% by the central bank. The foreign exchange market is characterised by a $S_€$=100E-15.000 and a $D_€$=15.000-50E currency supply and demand function.

   a) What is duty of the central bank in this situation?
   b) How do the reserves the central bank change?

2. Hungary uses the managed floating regime, and the foreign exchange market is characterised by $S_€$=200E-43.000 and $D_€$=29.000-100E functions.

   a) What is the equilibrium exchange rate?
   b) Foreign investors remove €800 from the country, while the central bank sells €500 from its reserves. What is the new equilibrium exchange rate?

3. The interest rate on HUF denominated savings is 8%, while on Euro savings is 3%. One Euro currently costs 300 Forint, and the exchange rate is expected to rise to 330 in a year's time.
   a) In which currency is it worth keeping our savings?
   b) How does our decision change if the investors expect to have a 315 exchange rate in a year?
   c) What is the decision if the interest rate of the Forint is raised to 20% (the expected exchange rate is 330 Ft/€)?

4. The following are known about the money market of two countries. Country A: $M^S{}_A$ = 3 940 428; $L_A = 0{,}62Y_A - 65\,400R_A$; Y_A = 58 000; R_A = 0,06. Country B: $M^S{}_B$ = 2 183550; $L_B = 0{,}52Y_B - 35\,700R_B$; Y_B = 32 800; R_B= 0,07.

   a) Determine the exchange rate of currency A in terms of currency B by using the monetary approach to exchange rates!

5. The price of the reference goods basket in the EU is $P_€$=500€, the price of the Hungarian one is P_{Ft}=62.500Ft. The supply and demand on the foreign exchange market is $S_€$=100E-15.000 and D€=85.000-300E.

   a) What is the real exchange rate?
   b) What will be the real exchange rate in a year, if the Hungarian inflation is 5%, and the European one is 2% during that year? (the nominal exchange rate stays unchanged)
   c) What kind of intervention is needed if the goal of the central bank is to keep the real exchange rate stable?