Answer the following. Keep your work neat and clear. Assume the economy is at full employment in all cases.

1. The nation of Ricardotopia currently has balanced trade (X-M). It is a small nation and therefore faces the world interest rate (r = r\text{World}).
   
   a. Draw the nation’s initial situation on a graph with r on the vertical axis. Label this situation with the subscript 1 (ex. r₁, (X-M)₁, S₁, I₁, etc.).

   b. Draw the nation’s initial situation on a graph with ε on the vertical axis. Label this situation with the subscript 1 (ex. ε₁, (X-M)₁, etc.).

   Now, assume that the federal government increases its spending without raising taxes.

   c. Draw this new situation on the graph with r on the vertical axis. Label this situation with the subscript 2 (ex. r₂, (X-M)₂, S₂, I₂, etc.).

   d. Draw this new situation on the graph with ε on the vertical axis. Label this situation with the subscript 2 (ex. ε₂, (X-M)₂, etc.).

   e. What is happening to the (real) exchange rate as a result of this? Why?

   f. Explain how the composition of Aggregate demand changed as a result of this (if it did change). What happened to capital flows? Can you explain these results more intuitively, i.e. without explicitly referring to the graphs?

2. The nation of Stolpernam currently has balanced trade (X-M). It is a small nation and therefore faces the world interest rate (r = r\text{World}).

   a. Draw the nation’s initial situation on a graph with r on the vertical axis. Label this situation with the subscript 1 (ex. r₁, (X-M)₁, S₁, I₁, etc.).

   b. Draw the nation’s initial situation on a graph with ε on the vertical axis. Label this situation with the subscript 1 (ex. ε₁, (X-M)₁, etc.).

   Now, assume that the federal government decreases its spending and leaves taxes unchanged.

   c. Draw this new situation on the graph with r on the vertical axis. Label this situation with the subscript 2 (ex. r₂, (X-M)₂, S₂, I₂, etc.).

   d. Draw this new situation on the graph with ε on the vertical axis. Label this situation with the subscript 2 (ex. ε₂, (X-M)₂, etc.).

   e. What is happening to the (real) exchange rate as a result of this? Why?

   f. Explain how the composition of Aggregate demand changed as a result of this (if it did change). What happened to capital flows? Can you explain these results more intuitively, i.e. without explicitly referring to the graphs?

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1 Ideally you will use the real exchange rate, ε. However, if both countries are experiencing the same inflation rate, it shouldn’t matter whether you use ε or e.
3. The nation of Hecksherstan currently has balanced trade (X-M). It is a small nation and therefore faces the world interest rate (r = r_{World}).

a. Draw the nation’s initial situation on a graph with r on the vertical axis. Label this situation with the subscript 1 (ex. r_1, (X-M)_1, S_1, I_1, etc.).

b. Draw the nation’s initial situation on a graph with ε on the vertical axis. Label this situation with the subscript 1 (ex. ε_1, (X-M)_1, etc.).

Now, assume that the government raises tariffs and quotas on imported goods. Importers now have to pay a higher tariff and are allowed to ship fewer foreign goods in.

c. Draw this new situation on the graph with r on the vertical axis. Label this situation with the subscript 2 (ex. r_2, (X-M)_2, S_2, I_2, etc.).

d. Draw this new situation on the graph with ε on the vertical axis. Label this situation with the subscript 2 (ex. ε_2, (X-M)_2, etc.).

e. What is happening to the (real) exchange rate as a result of this? Why?

f. Explain how the composition of Aggregate demand changed as a result of this (if it did change). What happened to capital flows? Can you explain these results more intuitively, i.e. without explicitly referring to the graphs?

4. The nation of Rybczynski currently has balanced trade (X-M). It is a small nation and therefore faces the world interest rate (r = r_{World}).

a. Draw the nation’s initial situation on a graph with r on the vertical axis. Label this situation with the subscript 1 (ex. r_1, (X-M)_1, S_1, I_1, etc.).

b. Draw the nation’s initial situation on a graph with ε on the vertical axis. Label this situation with the subscript 1 (ex. ε_1, (X-M)_1, etc.).

Now, assume that the government lowers tariffs and quotas on imported goods. Importers now pay a much lower tariff and are allowed to ship more foreign goods in.

c. Draw this new situation on the graph with r on the vertical axis. Label this situation with the subscript 2 (ex. r_2, (X-M)_2, S_2, I_2, etc.).

d. Draw this new situation on the graph with ε on the vertical axis. Label this situation with the subscript 2 (ex. ε_2, (X-M)_2, etc.).

e. What is happening to the (real) exchange rate as a result of this? Why?

f. Explain how the composition of Aggregate demand changed as a result of this (if it did change). What happened to capital flows? Can you explain these results more intuitively, i.e. without explicitly referring to the graphs?

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This might not be the most exciting addition you make to a graph this semester.