1   Tariffs and quotas

In a small country the market for cars is described by the following demand and supply equations:

$$Q^D = 200p^{-1.2}$$
$$Q^S = 1.3p$$

where quantities are in millions and prices are in thousands of dollars.

1. What is the autarky price for cars, p^A, in this country?

2. Imagine the price of cars on the international market is $p^W = 9$. At this price how much would the country produce, how much would it demand and how much would it import?

3. Imagine the country imposes a quota for the import of cars. The government establishes that 1 million cars can be imported into the country. What is the amount of cars supplied and demanded under this regime?

4. Find the tariff that would yield exactly the same level of imports as established in part 3. Assume this tariff is on the form: t dollars per car.

5. Draw a graph that represents the autarky equilibrium, the free trade equilibrium and the two equivalent restricted trade equilibria.

6. Quantitatively assess welfare under the three regimes: free trade, import quota and tariff, under the assumption that the goverment doesn't auction off the quotas, but randomly assigns them to foreign countries. Calculate consumer surplus, producer surplus and government revenues under the three regimes and then compare welfare loss due to the two types of trade restriction.