ECON 110, Prof. Hogendorn, Spring 2011

First Midterm Exam

Each part of a question (a, b, c, etc.) is worth 5 points. Make sure to allot your time accordingly. Total of 35 points, -1 for messiness, -2 for extreme messiness.

1. The following quote from *The Economist* suggests some interesting things about money in Somalia, a country with very weak government: "Mogadishu's marketplaces … bustle with enterprise. Many deals are done in Somali shillings, a currency without a central bank to support it. Local businessmen guess the shilling is kept afloat by 'common assent'. Remittances in hard currency funnelled through *hawala* (Islamic word-of-mouth banks) may have more to do with it. The biggest of the banks, Dahabshiil, has offices in 40 countries. It moves a 'large share' of the $1 billion or more that Somalis abroad send to relatives back home each year."

    (a) Based on the above, is the Somali shilling a metal money, a token money, or a fiat money? Explain.

    (b) Based on the above, does the Somali shilling play each of the three roles of money? Explain.

2. *MTA.* On December 30, 2010, the fare for one subway ride in New York City was raised from $2.25 to $2.50. Annual ridership is about 1.6 (measured in billions).

Suppose that demand turns out to be

$$Q(p) = 2.21p^{-0.4}$$

(a) Graph this demand function and show the price/quantity point where the price of a ride is $2.25.

(b) Find the elasticity of demand using the derivative.

(c) Will the increase in fare to $2.50 increase or decrease revenue in the short run? Can you justify your answer without actually finding the new revenue?

(d) Suppose that you find out that ridership in 2011 is *higher* than 1.6. What do you think is the most likely explanation for such a finding? Illustrate your answer with your graph.

(e) Harder: Suppose that quite a lot of employers subsidize their workers taking the subway to work. Suppose it's enough that there is an average subsidy of 5¢ per ride in this market. Note this is a subsidy direct to buyers, so it's going to shift demand, not supply. Show what happens in the market.