ECON 219: Problem Set #2

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Problem 1

Consider the National Income Model:

$$
\begin{aligned}
Y &= C + I_0 + G_0 \\
C &= \alpha + \beta(Y - T) \\
T &= \gamma + \delta Y
\end{aligned}
$$

1. Define and interpret each of the componnts of the model. Identify parameter and variables.
2. Impose reasonable assumptions on the signs and values of the parameters.
3. Solve for the equilibriom income.
4. Obtain an discuss the six comprarative-static derivatives.

Problem 2

COnsider the market model:

$$
\begin{aligned}
Q_s &= Q_s \\
Q_s &= D(P, Y_0) \\
Q_d &= S(P)
\end{aligned}
$$

1. Provide an economic interpretation to each of the equaions. In you answers, include the assumptions on the signs of the relevant derivaties.
2. Define the concept of market equilibriom. Provide and explain its mathematical formulation.
3. Show that:
$$\frac{dP^*}{dY_0} > 0$$
Where P^* is the equilibrium price. Provide an economiv interpretation for this result.
4. Show that:
$$\frac{dQ^*}{dY_0} > 0$$
Where Q^* is the equilibrium price. Provide an economiv interpretation for this result.
5. Answer quesitons c and d using total derivatives.