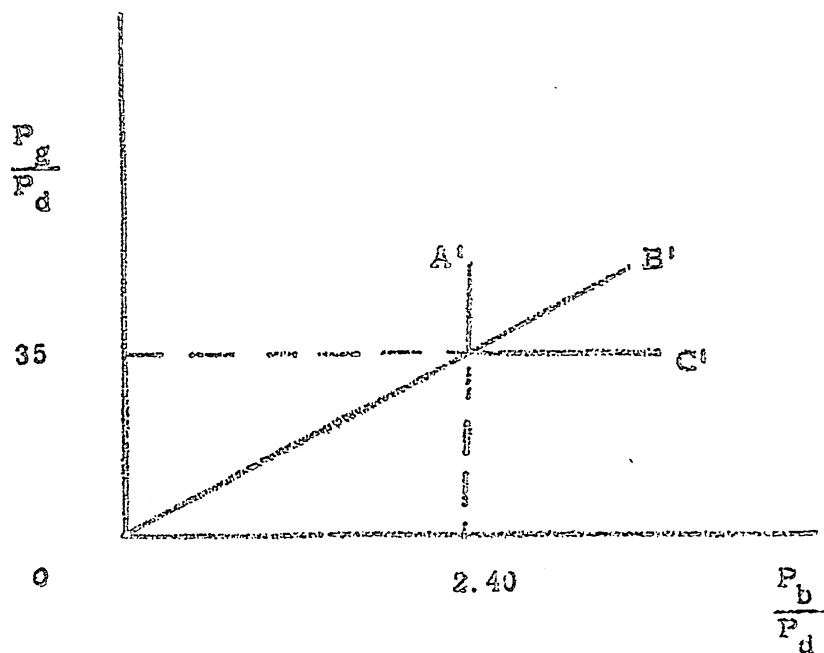


Figure 2



III. THE ECONOMICS OF DEVALUATION

Let us conceive of a world of three goods, called dollars, gold and pounds. Forget about their roles as money; for the moment they are just any three goods. Equilibrium prices are established by market balance equations. If P_d , P_g and P_b denote the abstract prices⁴ of these three goods, expressed in terms of an abstract unit of account, we can write three excess demand equations,

- (1) $X'_d(P_d, P_g, P_b) = 0$
- (2) $X'_g(P_d, P_g, P_b) = 0$
- (3) $X'_b(P_d, P_g, P_b) = 0$

to determine the three unknown, P_d , P_g , and P_b .

We have, however, a problem with such a system. The system of real excess demands is linear and homogeneous of degree zero in the three abstract prices. So we can "normalize" them by taking one good, say, gold, as the numeraire. Then we get three equations in two relative prices.

- (4) $X_d(p_d, p_b) = 0$
- (5) $X_g(p_d, p_b) = 0$
- (6) $X_b(p_d, p_b) = 0$

We would be in trouble now if the three equations were independent. But if the system is closed the markets are connected by Walras' Law

$$p_d X_d + X_g + p_b X_b = 0,$$

so that any two of the equations will give us equilibrium gold prices and the other equation must be compatible with that equilibrium.

Let us assume that the three goods are substitutes. Then the system can be presented diagrammatically as in Figure 3. Each of the lines graph one of the equations, (B for pounds, D for dollars, G for gold) and the six zones reflect potential positions of disequilibrium. But the apparatus gives us a general equilibrium framework for analysis.

⁴ An "abstract price" has a single dimension Q^{-1} .