ECO 4114

POST-KEYNESIAN THEORY: MONEY AND EFFECTIVE DEMAND

FINAL EXAM

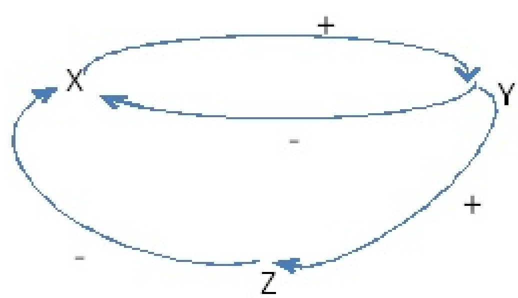
Professor: Marc Lavoie — December 22nd, 2009
TBT 315 — 2:00 - 5:00

There are two sections to this exam.

SECTION I (40%)
YOU MUST CHOOSE EITHER QUESTION A OR QUESTION B.

QUESTION A

Many causes have been put forward to explain the financial crisis that has hit the American economy as well as most other industrialized countries. Present a series of causal relationships (with the help of directional arrows linking various variables, superposed by a minus or plus sign to indicate whether the relationship is positive or negative, example shown below), accompanied by possible feedback effects, that would help to explain the *real* and *financial* interactions that could have generated the crisis. You must provide explanations of these causal relationships**.**



QUESTION B

(a) Explain, by appealing to mathematical formalization, the peculiar shape of the Kaleckian (effective) labour demand curve. (b) Why is it that there is no notional labour demand curve under Kaleckian conditions? (c) Show what happens to employment when there is an increase in autonomous demand while real wages are kept constant. (d) Show what happens to employment when there is an increase in labour productivity while real wages are kept constant. (e) Illustrate why there could be multiple equilibria in the labour market with a Kaleckian labour demand curve when the supply curve of labour is backward bending, and show (i.e., give a heuristic proof) which of the two equilibria is stable.

SECTION II (60%)
YOU MUST CHOOSE AND ANSWER <u>EIGHT (8)</u> OF THE FOLLOWING QUESTIONS. EACH QUESTION IS WORTH 7.5 POINTS.

1. You are given the following simple Kaleckian model of growth, with the notations used in the textbook and in class.

(I)	$g^i = \alpha + \beta u$	The investment function; it does not depend on the profit rate.
(II)	$g^s = s_c r$	The savings function
(III)	$r = u\pi/v$	The profits-cost equation (PC);

α is a constant parameter and β is the reaction parameter reflecting the sensitivity of accumulation to the utilization rate.

Demonstrate that the equilibrium value of the rate of utilization is:

$$u^* = \alpha/\{s_c(\pi/v) - \beta\}$$

Find the equilibrium value of the rate of growth g^*.
Carefully draw a graph in the (u, g) space which illustrates the investment and the savings functions, *as they are described here in equations (I, II, III)*, indicating the points of intersection with the axes, and the slopes of the curves.

2. Indicate under which mathematical conditions the model is stable. What does this imply with respect to the sign of α? [Hint: look at u^*]. Show graphically (or otherwise) why the model is stable under those conditions.

3. With the equations given in 1, find the effective demand relation ED, i.e., the relation between the profit rate and the rate of utilization seen from the demand side. Carefully illustrate on a graph this ED curve and the PC curve (in the (u, r) space). Once again, indicate the points of intersection with the axes and the slopes of the curves.

4. Show mathematically (using u^*) and graphically the consequences of the paradox of thrift, i.e., show what happens to g^* and u^* when there is an increase in s_c?

5. Show mathematically (using u^*) and graphically the consequences of the paradox of costs, i.e., show what happens to r^* and u^* when there is an increase in the profit share π?

6. Carefully show on a graph in the (p, q) space (price, output), the relationship between π and the variable θ, the significance of which is given by the following

equation:

$$p = (1 + \theta)w/T$$

where w is the nominal wage rate and T is output per unit of labour, here assumed to be a constant whatever the level of production. Find the exact mathematical relation between θ and the profit share π?

7. Some Marxist economists believe that the investment function should look like:

$$g^i = \alpha + \beta_1 u + \beta_2 \pi$$

Equations (II) and (III) are the other two equations of this model. Show graphically (in the (u, g) space, the three possible cases that could occur when the variable π is increased.

8. Let us go back to equations (I), (II), (III). Let us now assume that the rate of utilization u can differ from its normal value, u_n, only in the short run. Thus, in the long run, we must have: $u^* = u_n$, as assumed by Joan Robinson in 1956 in particular.
Suppose there is a decrease in the propensity to save. With the help of the ED and PC curves, or in the (u, g) space if you prefer to do so, illustrate what happens in the short-run. Then explain how, in the view of Robinson, the change in income distribution will allow the return to the normal rate of utilization in the long run.

9. Authors such as Duménil and Lévy have proposed another mechanism by which the rate of utilization of capacity will return to its normal value in the long run. This mechanism can be incorporated without modifying equations (I, II, III). Starting from a situation where the propensity to save has fallen, leading to an above-normal rate of utilization, illustrate graphically this mechanism in the (u, g) space, assuming that α slowly changes according to the following equation:

$$\Delta\alpha = -\varphi(u - u_n).$$

Explain why Duménil and Lévy claim that one can be a Keynesian/Kaleckian in short-run analysis but that one must be "classical" in long-run analysis.

10. Briefly show why, within a model of conflict inflation, an increase in the rate of growth of the economy could be associated with a decrease in the rate of inflation. You need not go into details. You can use graphs and briefly recall the logic behind these graphs.