An Assessment of NCM

The contribution of NCM is that the private sector's behaviour may be affected by the government's behaviour as the latter may change the private sector's expectations. Thus a feedback relationship may exist between the two. Any good economic model should tackle it. The major contribution of NCM is to highlight such necessity. But in its purest form, the RE hypothesis, the assumption of instantaneous adjustment and the PIH are unrealistic and extreme.

Buiter's (1980) criticism of PIH in *Economic Journal*

(1) The NCM emphasizes only monetary policy and its ineffectiveness in nearly all the models. In reality, **fiscal policy** would have real effects.

e.g. Δ taxes → would affect labour supply and saving behaviour
$\Delta \ \overline{G}$ → would affect private consumption, investment, capital formation, and would generate L-R effects on the productive capacity and real output of the economy.

- The key point is the direct **complementarity** or **substitutability** between various components of private and public spending. Complementarity would produce expansionary effect.

- Even if the public know for sure the government's fiscal rule, they would not do anything to offset its effect if private and public spendings are complementary to each other.

(2) Even with regard to monetary policy, Buiter argues that real effects can be produced even if for any single period, $\overline{M}$ **has only inflationary effect.** Different fully anticipated proportional rates of growth of the nominal money supply are associated with different proportional rates of inflation. This will alter the composition of output in the S-R and capital formation and hence the productive capacity of the economy in

the L-R.

Δ P → real returns on M (where r_M=0)

→ bonds, stocks, property, machine (portfolio restructing)

$$\Delta I \rightarrow \Delta \left(\frac{K}{L}\right) \qquad \Delta C$$

The change in inflation rate changes the real rate of returns on money whose nominal rate is fixed at zero. This changes equilibrium portfolio composition and alters the rate of capital formation and the (K/L) ratio, Y_t, $\overline{Y}$ etc. are bound to be affected.

(3) "Debt neutrality" theorem – a theoretical curiosum.

NCM argues, in line with the so called "Ricardian Equivalence Theorem" (RET), that any government spending financed by debts will have no real effects because the private sector would rationally expect future debt servicing burdens and increase savings (reduce spending) to cater for them. So aggregate real spending/output would not change.

Buiter strongly rejects this. He stresses that there are two sources of non-neutrality:
(i) liquidity effect
(ii) portfolio composition effect.

[A much more detailed analysis and debate can be found in
R. Barro, "Are Government Bonds, Net Wealth?", Journal of Political Economy, 1974.
J. Tobin, Asset Accumulation and Economic Activity, Blackwell, 1981.

For a debate about the neutrality hypothesis in its application to a practical issue like where the Central Provident Fund (CPF) should

be set up in H.K. or not, see the "debate" between Richard Wong and Tang, Tsang… et.al. in the 1987 volume of Hong Kong Economic Papers.

* The key issue is whether the intertemporal transfer mechanism is so perfect and efficient that the real effects of fiscal measures will be fully offset.

Doubts:1. uncertainty about the future

2. altruism may not exist

3. the capital market may be imperfect

4. different discount rates in a heterogeneous population

5. strategic behaviour

… etc.

(4) Inconsistency of optimal plans

Buiter refers to:

F.E. Kydland & E.C. Prescott, "Rules Rather than Discretion: the Inconsistency of Optimal Plans", Journal of Political Economy, 1977, pp.473-91.

While the private sector optimizes private objectives, the government attempts to optimize a social welfare function. NCM assumes that both parties know the other's aims and anticipate the other's reaction, so the situation is just like a dynamic game. In that case, consistent rules may be suboptimal and only inconsistent rules are optimal.

e.g. A two-period flood disaster control: In an area, there are two states of the world, good and bad in period 2. Good – no flood; bad – flood. The true state will not be known until the beginning of period 2.

In period 1, the government can discourage people from living in the area by claiming not to give any relief in period 2 if flood occurs.

If in period 1, people have ignored this warning and settled in the area and a flood does strike in period 2. Should the government keep its pledge?

No! Bygone is bygone, the government should send relief for humanitarian reasons. So optimal plan is "time-inconsistent". Moreover, rational people will anticipate this and thus more people will live in the area!

Does this imply that policy optimization is not possible if people hold R.E.?

Buiter's answer is No! He argues that we can incorporate the endogeneity of expectations and policy restrictions into rule formulation, a set of constrained optimal policy rules can still be derived.

Time-consistency is still a controversial issue and the debate is far from settled.

A Comment on NCM from the perspective of game theory

The contribution of NCM, as I said above, is to focus attention on the interaction between the government and the private sector. So it is just like a game between the two. One way to argue for the effectiveness of government intervention is to stress the superiority of the government w.r.t.

1. information availability;

2. information exploitation;

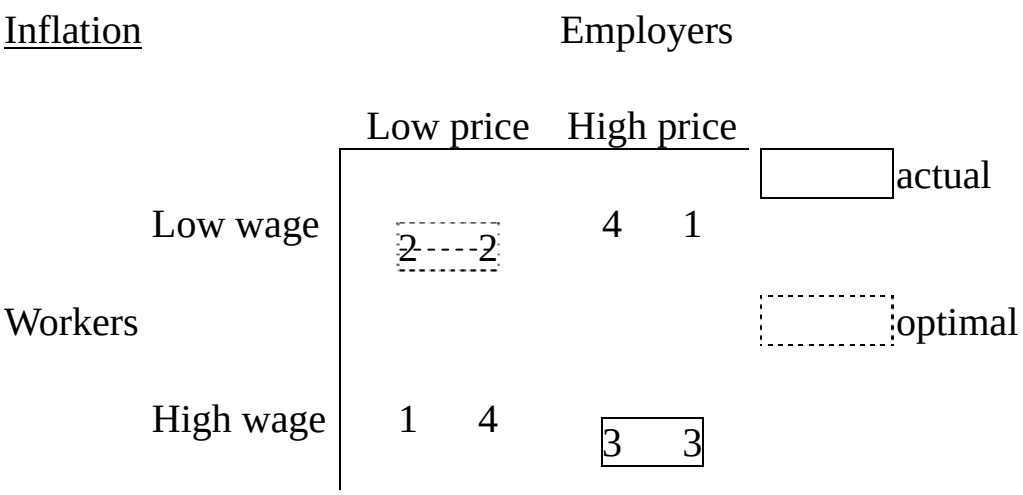
3. action – resources
   – legal power
   – centralized decision making

… etc.

Another way is to postulate the game not as one between the government and the private sector; but between different parties in the private sector, and depict the government as an independent arbitrator with powerful resources. This can be illustrated by looking at two examples in which private solutions invariably produce **"prisoner's dilemma"** types of results and government intervention is required to push the economy back to Pareto-optimal situations.

An example is a prisoner's dilemma on wages and prices, resulting in inflation, as follows.

Diagram 1



Result 1: best
2: second best
3: bad
4: worst

Another example is a prisoner's dilemma on involuntary unemployment.

Diagram 2

Involuntary unemployment

Employers producing products

Workers buying products	Increase	No increase
Increase	1 1	4 2
No increase	2 4	3 3 *

multiple equilibria

*If both sides are trapped into this equilibrium, involuntary unemployment will appear.

Result 1: best
2: second best
3: bad
4: worst