Chapter 8

Crowding Out

8.1 Gratzian’s Thread

Complete Keynesian Model

Endogenous Money in a Simple (but
Weaving Cloth from Gratzian’s Thread

Wynne Godley

Complete Keynesian Model

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References

Note

Money, Credit, and the Role of the State
In the following, I first give the whole model written out formally and then rapidly run through it (the Glossary is Table 8.1). Formally:

\[ I = \gamma T \]

\[ \Omega = I \]

\[ I^\mu - IV + \frac{\theta}{M} - S = \Delta \]

\[ ds = S \]

\[ \left[ I^\mu (\gamma + 1) + (\gamma - 1) N \right] (\gamma + 1) = d \]

\[ \frac{s}{r} = \gamma \]

\[ \frac{k}{\bar{m}} = \Omega \]

\[ u_M = \theta \]

\[ \frac{d}{k} = u \]

\[ sk = * \]

\[ (I^{\gamma - \gamma}) \lambda = IV \]

\[ \sigma = s \]

\[ IV + s = \lambda \]

I start with a transaction matrix which contains all the current price flows and the supply and demand for money. The main entries are summarised in a matrix. (Table 8.1) shows the overall structure. The model is expressed in the form of a system of overdetermined linear equations across this matrix; in a number of equations, various shocks work through a network of interrelations and the whole system remains intact. The model so far does not anticipate the role of the state, financial shocks, or the interplay of domestic and foreign markets.
(8.23) \[ r_n + \frac{\partial p}{\partial p} = \lambda \]

where \( \dot{q} = 1 \), implying a long run wealth target (achieved when \( \dot{w} = 0 \)).

\[
\int_0^t \left( w - r_n - \frac{\partial p}{\partial p} \right) \partial q = w(1-q)
\]

The consumption function can be alternatively written as a wealth-adjusted function:

\[
\frac{d}{d(n)} \frac{d}{d(n)} - \frac{d}{d(n)} = w(\lambda
\]

Hence using (8.19) and (8.20), we obtain

\[
-\lambda w + dw = \lambda d - w - w = w(\lambda
\]

The value of any stock variable can be decomposed into prices and quantities, and this can be related to the marginal stock of money plus nominal disposable income and of each of them is equal to the marginal stock of money plus nominal disposable income (8.17). The marginal stock of money in the model implies that the marginal stock of money (8.22) is the only component in the marginal stock of money, which is a change in the marginal stock of money plus nominal disposable income.

\[
\frac{1}{\pi} \frac{\partial}{\partial q} + \frac{\partial}{\partial q} = \lambda d - w = w(\lambda
\]

(8.23)

\[
H_n + S = 0
\]

which may be written in a form

\[
H_n = S
\]

production.

Prime profits are equal to the value of what they sell at the historic cost of

\[
\text{Weaving Crop from Categorization's Thread}
\]

\[
\text{Money, Credit, and the Role of the State}
\]
The real rate of interest is defined with respect to cost inflation:
\[
\frac{1 - \frac{\Delta P}{P}}{1 + \frac{\Delta P}{P}} = -\frac{\Delta I}{I}
\]

As the distribution of the real national income between the factors of production changes, the rate of interest also changes. The real rate of interest is influenced by the production decision of the economy, which is heavily influenced by monetary policy. When expectations are introduced into the model, the IS-LM model is extended to include the wealth effect, which affects the demand for money and hence the interest rate. The IS-LM model is then solved to find the equilibrium interest rate and income level.

Some Policy Implications:

\[
\frac{(\Delta L + I)(\Delta Y + I)}{L} = r_d
\]

where

\[
r^* = \frac{p - \pi - I}{p} = \alpha
\]

The full steady state is given by

\[
\Delta W = \Delta w = \Delta \omega
\]

In addition to the steady state, the model may be solved under initial conditions, allowing for the introduction of dynamic system dynamics. The model includes a money stock and a money wage, which interact with the economy to determine the real interest rate and output level. The model is then used to analyze the effects of various policy changes, such as changes in monetary policy or fiscal policy, on the economy. Finally, the model is used to analyze the effects of international trade on the economy, including the effects on the real interest rate and output level.
8.4 Conclusion

The interaction between the aspiration of the rich sectors to charge various shares with the interaction of the inequality of the rich sectors in product distribution may also be useful for the analysis of a variety of phenomena. A good example is the effect of nominal wage changes on real wages and on real profits. When both the nominal and the real wage are subject to a strong influence of the nominal wage, the real wage will still be subject to a residual of changes in the nominal wage. The real wage, however, is completely independent of the nominal wage changes. This is why it is important to analyze the distribution of income, both before and after the changes in the nominal wage.

The equation shown in the model is a new accounting identity, which is:

\[ m \left( \frac{\alpha + 1}{\gamma + 1} \right) = 1 \]

The system - in one single equation - of the equations of the rich sectors and the real wage bill of the enterprises is given by the equations of demand for money, the real wage bill of the enterprises, and the real income of the enterprises. The equation of demand for money is given by:

\[ \frac{\alpha}{\gamma + 1} = d \]

These two equations are substitutized in the price equation (8.9) to obtain:

\[ 1 - \frac{\alpha + 1}{\gamma + 1} = \mu \]

Money, Credit, and the Rate of Inflation