Outline of the structure of Michal Kalecki's macroeconomic model in comparison to the Modern Monetary Theory (MMT)

Prof. Dr. Antony P. Mueller
UFS Macroeconomic Dynamics Discipline
Department of Economics
2011/1

Kalecki's Model

1. Similar to Keynes's theory, Kalecki's macroeconomic model is based on the principle of effective demand

2. The "effective demand principle" says that in a monetary economy the total spending determines a revenue of equal magnitude (sometimes called the "Anti-Law of Say")

3. Like in Keynes' theory, Kalecki states that investment is equal to savings under the condition of a closed economy

4. As in Keynes' theory, Kalecki notes a fundamental instability of economic activity in a "capitalist" economy. According to Kalecki, the capitalist is 'dynamically' unstable

5. Unlike Keynes, the consumption function does not matter in the Kaleckian model because not consumption, but investments determine the level of economic activity

6. Unlike Keynes, Kaleckian theory puts "the capitalist" in his decision on the investments into the center of the economic process

7. For the Kaleckian macroeconomic theory, there is a unilateral causal relationship in the sense that investments of the capitalists automatically create their own financing in the form of a savings of equal value

8. In the Kaleckian model, the profits of the capitalists are determined by investments and their consumption

9. In Kalecki's basic model, income (Y) is composed of gross profits (Π) and wages (W)

$$Y = \Pi + W$$

10. Income (Y) is determined by the spending on investment (I), consumption of the capitalist (C_k), consumption of the wage earners (C_w), government spending (G) and the external balance (NX):

$$Y = I + C_k + C_w + G + NX$$

11. Simplifying the equation (eliminating G and NX), one receives the equation for a closed economy without government as

$$Y = I + C_k + C_w$$

12. Unlike Keynes, the workers' propensity to consume is 1 (one) in the model of Kalecki, ($c = 1$). Thus, the consumption of the workers (C_w) is equal to the wages (W):

$$C_w = W$$

13. From $Y = \Pi + W$
(line 9), results

$$\Pi = Y - W$$

14. Taking $Cw = W$ (line 12) and $Y = I + Ck + Cw$ (line 11) result in:

$$\Pi = I + C_k + C_w - W$$

15. Because C_w equal W, profits are defined as:

$$\Pi = I + C_k$$

16. Transforming the income equation (line 10) into the formula for disposable income
(Y - T), results in:
$$Y - T = I + C_k + C_w + (G - T) + NX$$

17. Reformulating this formula (from line 16) into

$$Y - T - C_k - C_w = I + (G - T) + (Ex - IM)$$

18. With private savings as
$$S_{pr} = Y - T - C_k - C_w$$

19. We get

20. Result:
In the Kaleckian model, private aggregate saving (S_{pr}) is determined by investment (I),
the foreign trade surplus (X - M) and the deficit of the government budget (G - T).

22. Following the Kaleckian theory, it is not savings which does finance investments, but
but savings are a flow of income resulting from investment.

Critique of the Kaleckian model
1. Epistemologically, there is no "causality" in statistical sets (aggregates)

2. The division of the economic actors exclusively in to the "capitalist" class and the
"wage earners" does not comply with reality

3. Likewise, the thesis that the "wage earners" consume all their income does not hold
emprirically

4. The savings (S) in the Kaleckian model is only private saving. But for a macroeconomic
model, national savings, including public savings, must be included as part of the national
savings. If public savings is negative ($G > T$), the macroeconomic saving decreases while
the capital formation is reduced.
5. If the investments are equal to the private savings in the model, and there is a public
deficit, the implication ceteris paribus is a deficit in foreign trade with ($X < M$).

6. In this case, a public deficit will not increase macroeconomic savings.

7. The validity of the Kaleckian model is epistemologically, theoretically and practically (causality, modeling of actors, application in economic policy) deficient.

"Modern Monetary Theory" (MMT)

1. The basic equation of the MMT is derived from the definition of national income (Y) as being composed of consumption (C), investment (I), government expenditure (G) and net exports ($Ex - Im$) and how national income (Y) is used as paying for consumption (C) and taxation (T) with savings (S) as the residual. This way, one gets:
2.

$$C + T + S = C + I + G + Ex - Im$$

2. By eliminating C on both side and moving T and S to the right side, one gets an equation which identifies three sectors of the macro economy in terms of their financial balance.
3. According to this approach, the financial balance for the private sector is defined as investment minus savings ($I - S$), for the public sector it is government expenditure minus taxes ($G - T$), while the financial balance for the external sector of the economy is given by the trade surplus ($Ex - Im$).

4. All three financial sectors taken together must balance as put forth in the first equation. Imbalances can occur in the individual sector where a deficit in one sector requires a surplus in some other sector.

5. This way, a budget deficit (G >T), for example, needs a surplus of savings in the private sector (I < S) when the external sector is in balance (Ex = Im).

6. If, for example, the private sector is balanced ($I = S$), a budget deficit ($G > T$) implies a trade deficit ($Ex < Im$).

7. From

$$(I - S) + (G - T) + (Ex - Im) = 0$$

 And assuming

$$Ex = Im$$

follows

$$(G > T) \Leftrightarrow (S_{pr} > I_{pr})$$