

National Research University Higher School of Economics

Centre for the History and Methodology of Economic Science

History of Economic Theory and Policy of the 20th century (Online course)

Keynes fights back: rethinking the Keynesian
legacy in application to economic growth
and distribution

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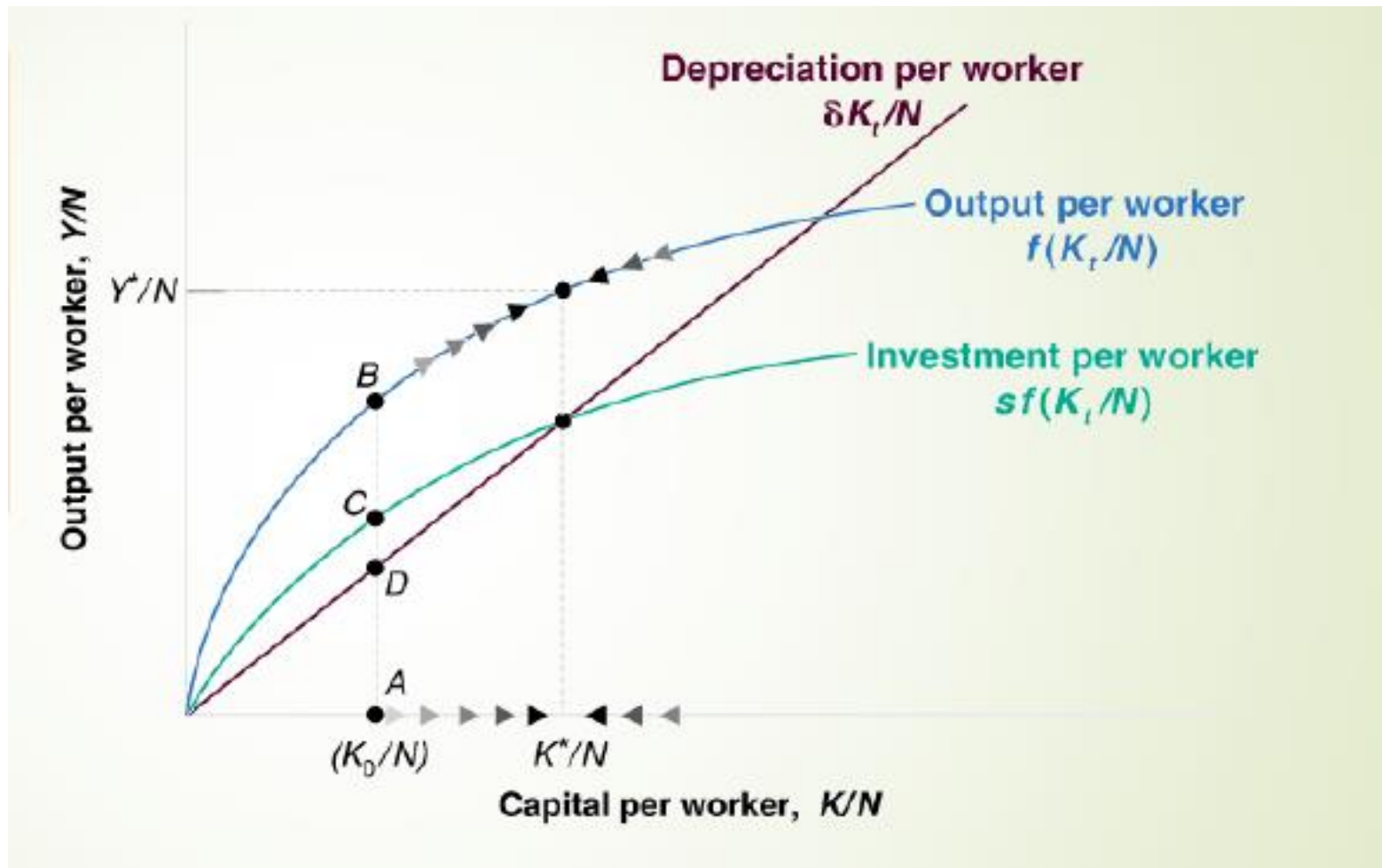
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Overview

1. Anti-Keynes: Solow-Swan (1956) growth models (backed by Samuelson, 1961) for Post-WWII
2. Post-Keynesian criticisms and the Cambridge-Cambridge capital theory controversies
3. Post-Keynesian contributions: pioneers
 - Joan Robinson (1953, 1956, 1962)
 - Nicholas Kaldor (1955, 1957, 1966)
 - Luigi Pasinetti (1962, 1965)
4. Alternative distribution theory: discussion

1 Anti-Keynes: Solow-Swan (1956) growth models

Dynamics of K and Y



Solow & Swan (1956) models

- a) When K and Y are low, K will increase by employing *more capital intensive* methods of production (as the interest rate was relatively *low* in the first place)
- b) When K and Y are high, Investment is less Depreciation and so K will decrease by employing *less capital intensive* methods of production (as the interest rate was relatively *high* in the first place)

So underlying these mechanisms is chiefly the *principle of factor substitution*.

Principle of factor substitution

- Represented by the Aggregate Production Function (Cobb-Douglas): intended to shed light on heterogenous market economies.

$$Y=F(K; L)$$

$$y=f(k) \text{ (where } y=Y/L \text{ and } k=K/L)$$

$$F'(K) > 0; F'(L) > 0$$

$$F''(K) < 0; F''(L) < 0$$

But, for the economy as a whole, in which units are capital and output measured?

- From a purely, mathematically formal point of view K and Y *must* be homogenous (or at least to assume that relative prices *do not change* in time)
- These preoccupations were at the centre of some Cambridge (UK) economists who criticised the neoclassical approach based on those models (Solow, etc)

3. Post-Keynesian criticisms and the Cambridge-Cambridge capital theory controversies

Joan Robinson (1953)

kicked off the controversies

- Emphasis on aggregation
- Emphasis on what this equilibrium (steady state) means
- Issues of uncertainty and expectations (so, somehow rekindling Keynesian insights)

(in the next lecture at 12:40 I will discuss other lines of criticisms raised within the Cambridge controversies)

Joan Robinson (1953) on equilibrium:

*Equilibrium requires that the rate of profit ruling **today was expected to be ruling today when investment in any plant now extant was made**, and the expectation of future profits obtaining today was expected to obtain today. Thus the value of capital in existence today is equal to its supply price calculated in this manner.*

Joan Robinson (1953) on equilibrium and links with Keynesian insights in that line of criticism:

*The heavy weight which this method of valuing capital puts upon the **assumption of equilibrium emphasizes the impossibility of valuing capital in an uncertain world. In a world where unexpected events occur which alter values, the point of view of the man of deeds, making investment decisions about the future, and of the man of words making observations about the past, are irreconcilable, and all we can do is botch up some conventional method of measuring capital that will satisfy neither of them.***

Partially relying on this line of criticisms (deepened further in Robinson, 1955, 1956, 1962, etc.), an alternative approach to growth *and distribution* to neoclassical theory started to emerge *in the context of the Cambridge controversy*.

Robinson (1962) herself contributed to this *positive* literature on building an alternative theory, as well as N. Kaldor (1955, 1966) and Luigi Pasinetti (1962).

The so-called Cambridge equation theorists may be regarded as the first group or pioneers of post-Keynesian authors.

3. Post-Keynesian contributions: Joan Robinson (1953, 1956, 1962); **Nicholas Kaldor (1955, 1957, 1966)**; Luigi Pasinetti (1962, 1965)

$$Y = W + P \dots \dots \dots (1)$$

$$I = S \dots \dots \dots (2)$$

$$S = S_w + S_p \dots \dots \dots (3)$$

$$S_w = s_w W \dots \dots \dots (4)$$

$$S_p = s_p P \dots \dots \dots (5)$$

From (2-5), and adopting the Keynesian insight that I determines S, we can obtain:

$$I = s_p P + s_w W$$

$$I = s_p P + s_w (Y - P)$$

$$I = s_p P + s_w Y - s_w P$$

$I = (s_p - s_w)P + s_w Y$; and dividing by Y this equation we obtain:

$$I/Y = (s_p - s_w)P/Y + s_w \quad (6)$$

$$P/Y = [1/(s_p - s_w)](I/Y) - s_w/(s_p - s_w) \quad (7)$$

Hence, distribution (P/Y) chiefly depends on the I/Y relation, for given propensities to save for different social classes.

$$P/Y = [1/(s_p - s_w)](I/Y) - s_w/(s_p - s_w) \quad (7)$$

Condition for stability: $s_p > s_w$

This opens the way for a *positive* relationship between profits and investment (or accumulation).

If $s_w=0 \rightarrow$ Kalecki's model: workers consume all their income, capitalists earn all their consumption.

Kaldor's mechanisms

Increase in $I \rightarrow$ increase in Agg. Demand \rightarrow (given full employment) \rightarrow increase in price \rightarrow fall in real wages \rightarrow fall in consumption.

Degree of changes in income distribution will depend on the difference between propensities to save.

Pasinetti (1962): if workers “save” and then invest (stock markets shares, etc) then they can be treated as capitalists.

Let us consider the interesting case when $s_w=0$, then $s_p=s$ and equation 7 turns out:

$$P/Y=(1/s)(I/Y) \quad (7')$$

Then dividing both sides by capital (K) and cancelling out Y:

$$P/K=(1/s)(I/K)$$

Profit rate $r=P/K$

Growth rate (accumulation of K) $g=I/K$

so: $r=(1/s)g$

And hence, Cambridge equation: $g=sr$

Thus, the theory of accumulation is conditioned to the distribution of income (profit rate), for a given propensity to save.

This is the core of the post-Keynesian theory of accumulation.

Profit-led models in neo-Kaleckian models.

4. Alternative theories of distribution: discussion

Is it legitimate to postulate as a general outcome that, in order to accumulate capital (and hence economic growth) a higher profit rate is needed (given the propensity to save)?

$$g=sr$$

Is g an empirical variable? Is so, what is its bearing on *normal* income distribution (r)?

Other interpretations have followed, such as Garegnani & Palumbo (1998), Garegnani and Trezzini (2010) and other authors influenced by Sraffa, who point out that there is no *a priori*, positive relationship between accumulation and income distribution.

“empirical” g depends on the level of productive capacity utilisation (a Kaleckian insight).

e.g. a certain manufacturing sector somehow takes a certain average, normal level of capacity utilisation below 100% in order to meet eventual increase in demand.

Split amongst post-Keynesian authors on the interpretation of the Cambridge equation.

No alternative theory of distribution established, even after the controversies in capital theory, when neoclassical approach underwent a profound crisis.

Thank you!