46 Keynes: ".. given the psychology of the public, the level of output and employment as a whole depends on the amount of investment."

PK: .. investment is a primary determinant not only of output and employment but also of the distribution of national income between wages and profits.

47 Major emphasis is placed on the distribution of aggregate national output between consumption and investment, as the counterpart on the product side to the distribution of income between wages and profits on the income side, with output itself determined by the relative balance between savings and investment and by the multiplier.

49 Thus Keynes rejected the notion that either the income of labor or the amount of employment could be determined by marginalist principles operating at the microeconomic level in the labor market.

50 He also rejected the analogous arguments about the income and amount of capital employed, but his reasoning on this point was less explicit.

Piero Sraffa (1960).. was able to show that.. there was no need to rely on the concepts of marginal productivity or marginal disutility to determine equilibrium prices.

Sraffa also was able to show that, once "capital" services are recognized as deriving from heterogeneous commodities which (without passing into the hands of final consumers) are used in the production process, there is no way to measure the "quantity" of capital except by calculating these "quantities" in value terms. Such values however will depend on prices... and the prices in turn will depend on the distribution of income and, with a different distribution of income, the rate of profit will differ. ... What this means is that there is no simple monotonic relation between the quantity of capital and its price.

Sraffa's contention, as Pierangelo Garegnani (1960 '66 '70) has stressed, is more fundamental than Joan's. For it denies the very logical foundations of a demand curve based on marginal productivity not only for capital but also for factor services.

The Third Diagram and J. A. Kregel's Theorems, pp. 51-56.

On the third diagram, the flow, fE', is the measure of the current emergent standard of living, and the flow, fE", is the measure of current investment, i. e., current contribution to the future growth of the economy.

fE' is supported by flows to consumer income both from basic outlay, c'f0', and from surplus outlay, c"f0".

Similarly, fE" is supported by flows to investment income both from basic outlay, i'f0', and from surplus outlay, i"f0".

On becoming fR', fE' is adjusted by the difference, fS' - sf0', to yield the next interval's outlay, c'f0' and i'f0'.

Similarly, on becoming fR", fE" is adjusted by the difference, fS" - s"f0", to yield the surplus outlay, c"f0" + i"f0".

The circulation is in equilibrium if the crossovers tend to cancel, so that on the average, c"f0" = i'f0'.

Since a series of hypotheses have to be introduced to determine the content of the differences, fD' - sfI' and fD" - sfI", on a first approximation one has to suppose that these differences are both zero.

On the other hand, as long as fS' - s'f0' is positive or zero or negative, the basic circuit will be expanding, stationary, or contracting.

Similarly, as long as fS" - s"f0" is positive or zero or negative, the surplus circuit will be expanding, stationary, or contracting.

Such expanding, stationary, or contracting states will be real or nominal according as their measures are in real of nominal units.

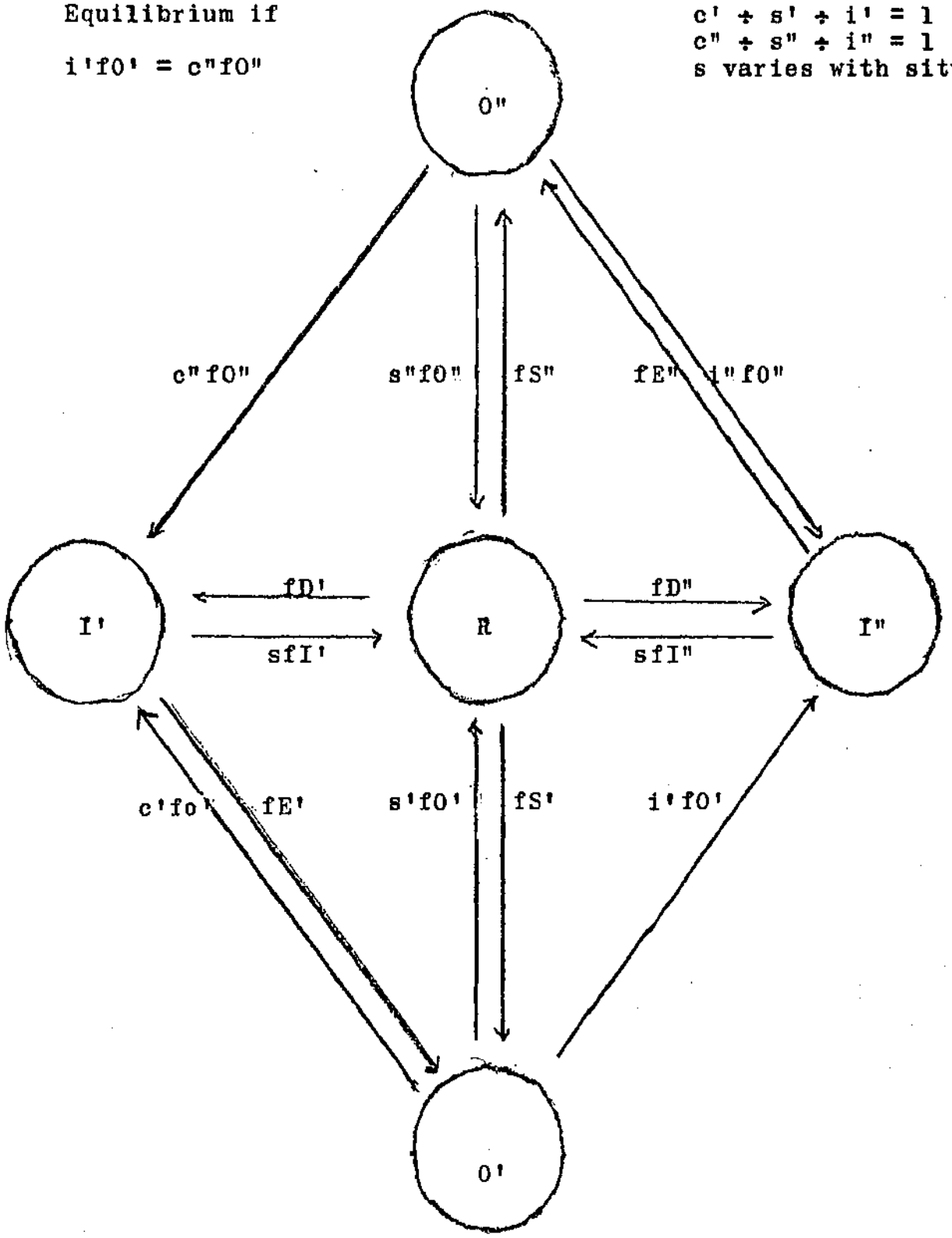
Finally, from a strictly macroeconomic viewpoint, the equality of the crossovers means that the basic circuit invests as much in the economy's future growth as the surplus circuit, which attends to growth, contributes to the emergent standard of living.

Diagram: Another Revision Read Eichner pp. 42-60.

Equilibrium if

$i'f0' = c''f0''$

$c' + s' + i' = 1$
$c'' + s'' + i'' = 1$
s varies with situation



Surplus outlay, 0", divides into consumption savings and investment;
it is fed by surplus expenditure and withdrawals from R.
Basic outlay, 0', divides into c'f0', s'f0', and i'f0';
it is fed by fE' and fS'.

Basic and surplus income contribute savings to
the redistributional function and draw
upon its facilities.

The Third Diagram and Kregel's Theorems, con'd.

Now I think that the essential point to the third diagram is presented in different terms by Kregel's theorems.

Kregel's terms distinguish two sectors: a consumption goods or wage goods sector and an investment goods sector.

The wage goods are purchased by the wages paid out both in the production of wage goods and in the production of investment goods.

The receipts in the wage goods sector exceed the wages paid in the wage goods sector by the amount of the wages from the investment goods sector spent on wage goods.

This excess provides funds for investment goods to be purchased by the wage goods sector.

Producers in the investment goods sector will want investment goods for their own use, and the sales of their products to the wage good sector must cover the labor costs of production, so that all additional investment goods produced for their own use represent the excess of sales over costs, i. e., they represent the profits of the investment goods sector.

The differences between the two analyses is that, while both adopt a basically macroeconomic viewpoint, still the terminology followed by Kregel is the familiar language of wages and profits, saving and investment, which express the viewpoint of the particular firm . The inadequacy of this viewpoint appears in the simplications that have to be postulated.

All wages are spent on consumption (wage or necessary) goods. This is the modern-day equivalent of the subsistence wage.

All profits are used to purchase new investment goods, as occurs with the idealized entrepreneur who ploughs back his profits to expand the family business.

A basis is not supplied for introducing as identifiably distinct sectors the one producing consumption goods and the one producing investment goods.