## Growth without normal capacity utilisation

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JEL classification:

O40 - Economic growth and aggregate productivity

E10 - Macroeconomics: general aggregative models (E11 - Sraffian; E12 - Keynesian)

E22 – Capital, Investment, Capacity

## ABSTRACT

The present paper bears on the methodological question (which is frequently raised within the theoretical literature on growth as a demand-led phenomenon) whether the long-period tendencies of the produced quantities can be effectively studied by means of positions characterised by complete adjustment between output and productive capacity.

The vast majority of growth theories and models which economic literature has produced from the 1950s on is dominated by the analytical construct of the steady state – a growth path along which all quantities grow simultaneously at a constant rate with capacity utilisation continuously being kept at its normal level. Also within what may be labelled the "Keynesian" (or "demand-led") approach to growth, where demand factors are given pride of place in the determination of the long-run tendencies of the system, the steady state hypothesis plays a dominant role. We shall refer in the first place to the growing body of theoretical work in which the steady-state hypothesis – and the related assumption of persistent normal utilisation of capacity – has already been proved as both seriously misleading in representing the long-period relation between accumulation and distribution and incompatible with a correct representation of the autonomous role played by aggregate demand in the process of accumulation (Ciccone, 1986 and 1987; Vianello, 1985, 1996 and 1997; Garegnani and Palumbo, 1998; Trezzini, 1995 and 1998).

In the second place, we will evaluate the apparently less strict hypothesis according to which, whatever the actual evolution of quantities, the long-period tendencies have to be studied by means of average positions characterised by complete adjustment between capacity and output – that is, average normal utilisation instead of continuous normal utilisation. However, it can be easily shown (and it has already been shown) that this hypothesis has the same shortcomings of the steady-state hypothesis, in that it does not allow for a determination of growth dependent on demand factors.

The problem can be looked at in the simplest way by comparing two different

(hypothetical) positions characterised by full adjustment between output and capacity, with the shift from one position to the other being caused by an autonomous change in demand. The process of adjustment of capacity to output and demand between the two positions cannot but happen through capacity and output growing at different average rates – thus entailing an average utilisation different from normal. This leads to recognise that the tendency of productive capacity to adjust to demand, though being a fundamental force operating in the system, cannot be taken as a tendency that is realised *on average*.

Further reflection on how the process of adjustment is likely to actually take place leads to regard the conditions for its full realisation as highly unlikely, since the tendency of capacity to adjust to demand, though undeniably and continuously at work, confronts with other – potentially contrasting – forces that affect investment and that are bound to prevent its complete realisation.

We then proceed to show that an analysis of growth conducted by reference to theoretical positions characterised by full adjustment may prevent us from properly understanding some aspects of the real growth processes, and for this purpose we shall particularly address two issues.

The first is the theoretical status of investment in the long period, i.e. the possibility of considering its double nature as an induced magnitude and as an autonomous magnitude. Being the way through which capacity adjusts to demand expansion, investment shows its induced nature, while at the same time it should also be conceived as a magnitude liable to be determined by other forces such as the pace of technical progress and the decisions of the firms aimed at defending and possibly expanding their market position.

We will show that the assumption of normal utilisation makes it necessary to consider investment exclusively as an induced phenomenon – thus entailing the necessity for theoretical analysis to neglect a relevant feature of the processes of accumulation.

The second issue concerns the relationships between autonomous demand, investment and output. A remarkable body of empirical work dwells upon the relationships between the rate of growth of output and the shares of investment and exports in aggregate output: while a theoretical analysis based on the assumption of normal utilisation would amount to assuming that the above variables are connected in rigid predictable ways, we maintain that these supposed relations do not always find confirmation in available data and some cases in which opposite relations hold can be shown. An analysis not adhering to that assumption and taking into account the variability of capacity utilisation leads to establish more flexible relations and as such it allows a less prejudiced study of reality.

This analysis finally leads to recognise the role played, in shaping the abovementioned relations, of different possible features of particular processes of growth such as the sensitivity of investment to particular components of demand, the higher or lower reliance on external markets or on the growth of the domestic capacity to consume, the import content of production, the changes in time of the fixed capital/output ratio. These and other factors may be studied in a flexible analytical structure where the relation between autonomous demand and output (traditionally represented by the 'multiplier') and that between demand expansion and creation of capacity are both conceived as liable to be shaped by the peculiar characteristics of each phase of growth.