# Continuous Industrial Production, the Sraffa System and Leontief's Dynamic Inverse

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The production equations of the Sraffa system have an 'agrarian' flavor- inputs in all industries are applied at one point in time and outputs of all commodities emerge at the end of the 'season'. As a consequence, the system has a peculiar property, viz. the material cost of production is equal to the capital invested and the rate of on-(material) cost markup is equal to the rate of profit on invested capital. However, the actual conditions of modern industrial production are quite different. Firstly, the usual practice is to apply a gross profit markup on prime cost (materials plus wages). Secondly, modern industrial production is characterized by continuous- input continuous- output technologies that are operated by a continuous replenishment of all types of inventories. Depending upon the capital turnover ratios the on-cost markup rates differ from the rates of profit earned on invested capital. This paper incorporates these features into the Sraffa system. It is shown that all the important properties of the Sraffa system carry over to the enlarged system and the dual of the enlarged system is identical with Leontief's dynamic inverse for the special case of a uniform rate of growth.