

Chapter 6 opens with an extended analysis of profit and capital. Two issues are paramount: the definition of capital and the determination of aggregate profit. Keynes cites Marx's notion of the circuit of capital $M-C-M$ as providing a particularly useful method for identifying capital. Over the life of its circuit, capital starts out as money M , is transformed into commodities (C) comprising labor power, raw materials, and plant and equipment, and then hopefully recouped as more money (M). By contrast, the act of working for a living in order to earn an income falls within the circuit $C-M-C$. The two circuits interact, since wages received by employees are part of the capital expenditures of firms, while the consumer goods and financial assets purchased by employees are part of the profit-motivated sales of firms. So it is not a thing's qualities but rather the process within which it operates that turns it into capital. Capital is also not defined by its durability: circulating capital like a clay mold may last only part of a year, while fixed capital such as a machine may last decades. On the other side, durable goods such as household automobiles and dwellings are parts of personal wealth, not capital. Indeed, a car may be personal wealth for an individual owner while the same model may be capital for a car dealer waiting for it to be driven off the lot (at the right price). Neoclassical economics always conflates capital and durable wealth because it simply defines "capital" as wealth that lasts more than one year. Modern-day national accounts often embody the neoclassical approach: for instance, private homeowners are treated as businesses renting their homes to themselves (appendix 6.7).

Section II demonstrates that there are two sources of aggregate profit, as originally argued by Sir James Steuart: the first arises from a transfer of wealth, the second from the production of new wealth in the form of a surplus product. This is the basis for the distinction between "buying cheap in order to sell dear" upon which merchant capital has been historically based, and the production of a surplus product on which industrial capital is based. Marx comments approvingly upon Steuart's distinction between profit based on "unequal exchange" and profit based on the production of a surplus. Because he is most concerned with the latter, in Volume 1 of *Capital* Marx concentrates on the demonstration that positive industrial profit exists even when there is "exchange of equivalents." He is careful to say that the other form which he calls "profit on alienation" plays an important role in various arenas, and says he will return to the issue at some later point (presumably in Volume 3 of *Capital*, which he does not live to complete). I demonstrate that the secret to Steuart's first form of profit is a transfer into the circuit of capital and show that this plays a critical role in various "transformation problems" and in the unraveling of the mysteries of financial capital.

Section III concentrates on industrial profit. Harking back to the earlier discussion in chapter 4 on the relationship between the length and intensity of the working day and the total product, it is demonstrated that a surplus product only arises when the length of the working day exceeds the working time to reproduce the standard of living of the employed workers, that is, only when surplus labor is performed. Since both the evolution of technology and its operation are socially determined, this tells us that the existence of surplus labor is a social outcome, not a merely "technical" one. Several further results are derived. First, aggregate profit is zero when there is a zero surplus product, regardless of the prices adopted by individual industries. Even doubling all selling prices will not work, because this also doubles the reproduction costs of the same material inputs and labor power (assuming that the real wage is maintained): then what firms collectively gain

as sellers they simultaneously lose as buyers, so aggregate real economic profits remain zero. Conversely, positive aggregate profit only exists when there is positive surplus labor time and a corresponding positive surplus product. Once again, doubling the absolute price level will not raise real aggregate profit because it also doubles all costs.

However, in the case of given positive surplus product a change in relative prices can change aggregate profit. Profit is still a reflection of the surplus labor, but now the mirror of circulation appears to be curved. The partial dependence of money profit on relative prices is completely general. It applies to neoclassical, Sraffian, and Marxian theories of price: in other words, there is a “transformation problem” in all schools of thought. In the Marxian case, aggregate profits vary when one moves from prices proportional to labor value to price of production. But the same can be said if one compares prices of production, which are after all purely theoretical constructs, to market prices or monopoly prices—a point that Sraffians have largely failed to note.

Section IV builds on Steuart’s insight that transfers of wealth and value can also affect aggregate profit. It is demonstrated that changes in the relative prices of commodities generally have different impacts on the circuits of capital and revenue, and can give rise to transfers between the two circuits even though the total money value of the product is unchanged. The sum of the transfers is always zero, but since one circuit may gain what the other loses, or vice versa, aggregate profit can change. This is a completely general solution to “transformation” problems. It can be used to further explain why the particular set of output proportions associated with maximum balanced growth does not exhibit this phenomenon—that is, why its aggregate profit is invariant to relative prices in this case. Section V uses the general framework to address financial profit arising from realized capital gains and other transfers (let us never forget Ponzi or Madoff). Section VI shows that Smithian, Sraffian, Keynesian, and post-Keynesian theories of aggregate profit actually rely on the existence of a positive surplus product by implicitly or explicitly assuming that the real wage is less than the productivity of labor. Neoclassical theory is different, because it has a notion of profit due to transfer (emanating from a model of pure exchange) and a notion of profit on production (emanating from an aggregate production function). This is Steuart redux, but now the emphasis is on the justification of profit as a reward to abstinence and entrepreneurship. It is important to separate the explanation of profit from its justification. Smith and Ricardo explain profit and rent as a deduction from the net produce of labor, but do not dispute that capitalists or landlords have rights to these flows. Marx is equally clear that capitalists and landlords (like all ruling classes) have the socially constructed “right” to extract surplus labor—just as at some point workers gain the right to resist. All three authors are critical of capitalists whereas neoclassical and Austrian authors tend to celebrate them. Section VII addresses the literature on the effect of relative prices on aggregate profit, including Marx’s famous “transformation” discussion. The subsequent literature from Bortkiewicz to Samuelson and Sraffa is assessed for its strengths and weaknesses, as is the so-called “New Interpretation” of Foley and Duménil. The section ends by noting that in any case the empirical impact of relative prices on aggregate profit and on the profit rate is very small. Section VIII takes up the theory and empirical measurement of profit, capital, and the rate of profit. Most of the details are developed in the appendices. Appendix 6.1 provides a formal treatment of the relations between surplus labor and aggregate profit. Appendix 6.2 shows that if the rate of profit is measured as the money value of the total product and the current cost of materials, depreciation, and labor (as argued in chapter 6, section III.3), then it is also a real rate of profit: deflating the

numerator and denominator by any common price index will not affect their ratio. On the other hand, deflating them by separate price indexes will not do because then the rate of profit will no longer be a pure number. Appendix 6.3 points out that the business notion of capital as gross stock is different from the neoclassical notion of capital as net stock, and appendix 6.4 shows that the treatment of fixed capital as a joint product then has two distinct forms: the one adopted by Marx which corresponds to gross stock and one adopted by Sraffa which corresponds to net stock. These two treatments turn out to have differing theoretical and empirical implications. Empirical measures of the capital stock present a new set of issues because of problems arising from the perpetual inventory method (PIM) through which investment flows are cumulated into capital stocks. Appendix 6.5 analyzes the meaning and impact of “quality adjustments” on price and quantity indexes and the apparently intractable aggregation problems arising from use of chain-weighted indexes which seem to make it impossible to generate capital stock measures based on less problematic assumptions. Section V of appendix 6.5 derives a new set of generalized PIM rules that apply even to chain-weighted aggregates, so that it becomes possible to construct new measures of the capital stock and hence of the rate of profit. Capacity utilization poses yet another challenge, since we know that actual capacity utilization will generally fluctuate in response to various factors. Accordingly appendix 6.6 analyzes existing measures and develops a new simple and general methodology for estimating capacity and hence capacity utilization. This has the additional virtue of allowing us to judge the effect of technical change on the capacity–capital ratio. Appendix 6.7 details the sources and methods for all of the empirical measures and appendix 6.8 provides a spreadsheet with all the data tables corresponding to chapter 6 and appendices 6.1–6.7. The new measures are shown to give rise to patterns strikingly different from conventional measures: the corporate maximum rate of profit falls steadily from 1947 onward, providing strong evidence that technical change lowers the average “productivity” of capital in the neoclassical sense. The corporate net operating surplus, which is equivalent to the business measure of Earnings before Interest and Taxes (EBIT) is quite stable in relation to value added, falling modestly in the 1947–1982 “golden era” for labor then rising modestly thereafter as neoliberal policies erode the wage share (figures 6.2 and 6.5). As a result, the corporate average rate of profit falls steadily throughout the first era but stabilizes during the second in the face of a declining wage share. One could say that this was the whole point of the Reagan–Thatcher neoliberal era.