

Chapter 7 presents the theory of real competition which is the theoretical foundation for the analysis in this book. The profit motive is inherently expansionary: investors try to recoup more money than they put in, and if successful, can do it again and again on a larger scale, colliding with others doing the same. Some succeed, some just survive, and some fail altogether. This is real competition, antagonistic by nature and turbulent in operation. It is the central regulating mechanism of capitalism and is as different from so-called perfect competition as war is from ballet. Competition within an industry compels individual producers to set prices that keep them in the game, just as it forces them to lower costs so that they can cut prices to compete effectively. Costs can be lowered by cutting wages and increasing the length or intensity of the working day, or at least by reducing wage growth relative to that of productivity. But these must contend with the reaction of labor, which is why technical change becomes the central means over the long run. In this context, individual capitals make their decisions based on judgments about an intrinsically indeterminate future. Competition pits seller against seller, seller against buyer, buyer against buyer, capital against capital, capital against labor, and labor against labor. *Bellum omnium contra omnes*.

Real competition generates specific patterns. Prices set by different sellers in the same industry are roughly equalized through the mobility of customers toward lower prices, and profit rates on new investments in different industries are roughly equalized through the mobility of capital toward higher profit rates. Both produce distributions around a corresponding common center. The classical notion of turbulent equilibration is very different from the conventional notion of equilibrium as a state-of-rest. Supply and demand play a role in the process but not in the final outcome, since both are affected by price-cutting and entry and exit. An important point is that price and profit rate equalizations are quintessential emergent properties, unintended outcomes of constant jockeying for greater profits.

The notion of competition as warfare has important implications. The competitive firm must be concerned with tactics, strategy, and prospects for growth. The relevant profit must be defensible in the medium term against all sorts of predation, which makes it very different from passive short-term maximum profit in neoclassical theory. In the battle of real competition, the mobility of capital is the movement from one terrain to another, the development and adoption of technology is the arms race, and the struggle for profit growth and market share is the battle itself. There are winners and losers, and places can be switched. No capital is assured of any profit at all, let alone the “normal” rate of profit, so it is completely illegitimate to count “normal profit” as part of operating costs as is conventionally done in orthodox economics. It is equally improper to count interest as part of operating cost. The division between debt and equity determines the division of net operating surplus into interest and profit. The interest rate also serves as an indication of the gap between rewards to active versus passive investment (chapters 10 and 16). Section II of chapter 7 develops the phenomena of price competition, section III those of profit rate competition, section IV unites the two through the notion of regulating capital. Section V summarizes the overall patterns associated of real competition.

Section VI turns to the evidence on the behavior of the firm, beginning with the finding of the Oxford Economic Research Group (OERG) that firms were price-setters forced by competition

to keep their prices in line with those of the price-leader. Andrews and Brunner insisted that the OERG findings described the behavior of competitive, profit-driven, price-setting, and cost-cutting firms. Geroski shows that excess profit in an industry stimulates the adoption of best practice methods by insiders and outsiders, that new entrants tend to undercut existing prices, and that even the threat of entry may be sufficient to put downward pressure on prices and eliminate excess profits. Darlin reports that price-cutting behavior is characteristic of competition when there are substantial cost differences. Bryce and Dyer's study shows that more profitable industries had almost five times as many entrants as did the average industry and that challengers approach competition as a form of warfare. Salter's classic study notes that best practice techniques embodied in new plants generally have higher labor productivity, and that there is always a spectrum of techniques within any given industry because new methods are constantly coming into operation and old ones constantly being scrapped. Comparing 1924 to 1950 in the United Kingdom, Salter finds that most of the changes in industrial relative prices can be explained (in a purely statistical sense) by changes in relative labor productivity, the latter in turn being driven by ongoing technical change. Salter's relationships will be shown in chapter 9 to be an aspect of a powerful and more general explanation of relative prices. Megna and Mueller note that while persistent differences in profit rate are the norm, attempts to explain them in terms of market power, collusion, barriers to entry, differences in efficiency, and even alternate measures of profit and capital (including "intangible capital" associated with advertising and R&D) have generally been unsuccessful. Walton and Dhawan note that most business studies find that profit rates decline with firm size, but so do levels of risk and cost of capital. Tables 7.8 and 7.9 show that in a sample of 38,948 firms, the capital–sales ratio rises with firm size while the cost–sales ratio remains roughly constant. The latter is consistent with the observation that new entrants have larger scale and lower costs per unit output, which allows them to set lower selling prices. The data also indicates that the capital–cost ratios unambiguously rises with firm size. This simple fact has major implications for the path of the profit rate under price-cutting behavior (section VII).

The last part of section IV examines empirical evidence on profit rate equalization. Classical theory expects that new investment is embodied in best practice plant and equipment. Even within a single firm, total capital will embody a variety of technologies and vintages, so we cannot treat the average rate of profit in a firm as a proxy for its regulating rate. The same problem exists at the level of an industry: the relevant measure is the rate of return on new investment. I show that this can be well approximated by the real incremental rate of return on capital, measured as the change in real profit (gross of interest, taxes, and depreciation) over real gross investment. Both variables are widely available across industries and across countries. I examine both average and incremental rates across OECD industries in 1970–1989, and across fifteen US manufacturing industries from 1960 to 1989, across thirty US industries from 1987 to 2005, and in more recent data for incremental rates of return in OECD industries. In every case, average rates of profit tend to remain distinct while incremental rates of profit are strongly equalized. Tsoulfidis and Tsaliki get the same results for twenty Greek manufacturing industries from 1962 to 1991. They also use Mueller's econometric methodology to test for long-run profit rate equalization: for average rates of profit in fourteen out of twenty industries the estimated long-run deviations of industry profit rates from the overall mean are not statistically different from zero, but for the incremental rate of profit all twenty industries yield estimated long deviations not statistically different from zero. Similar results are shown for Turkey in an excellent paper by Bahçe and Eres. Such results provide considerable support for the classical hypothesis.

Section VII closes the chapter by addressing the all-important question of exactly how the regulating capital itself is selected in the competitive battle—that is, by addressing the “choice of technique.” Actual decisions are always in terms of current and expected market prices. The fact that market prices gravitate in a turbulent manner around prices of production does not imply that the two are close, so we cannot substitute the latter for the former. Second, in keeping with the price-setting and cost-cutting behavior of real competition, firms are forced to select the lowest cost reproducible conditions of production—costs being defined here in the usual business sense as the sum of unit depreciation, materials, and wage costs. Once we allow for fixed capital, the lowest unit cost technique may be different from the highest profit rate one. Moreover, given that real markets are always turbulent, all choices must be “robust” in the sense that they remain valid in the face of normal fluctuations in costs, prices, and profitability. Hence, the appropriate methodology for the choice of techniques is stochastic, not deterministic. If lower unit operating costs are generally achieved through higher unit capital cost (capital-biased technical change in which the capital–cost ratio rises), then the fact that price- and cost-cutting firms select lower cost methods will imply a falling average rate of profit even at a given real wage. By contrast, the conventional (Okishio) selection criterion of the highest profit rate at the “given” price relies on the assumption that firms are passive price-takers, as required in perfect competition, and this implies that the average profit rate rises at a given real wage.