15 Monopolistic Competition and the Capital Market
Joseph E. Stiglitz*

1 INTRODUCTION

This essay is related to two topics on which Joan Robinson made important contributions. The first is the theory of imperfect competition. At the time it was written, The Economics of Imperfect Competition was heralded (along with Chamberlin's contemporaneous book The Theory of Monopolistic Competition) as doing for microeconomics what Keynes had done for macroeconomics. But the revolution to which it was supposed to give rise never occurred, and it was almost forty years before the themes she developed there again became the focus of theoretical research.3

The second theme was her development of a general equilibrium portfolio theory in her theory of interest (Robinson, 1952), a clear predecessor of the later work of Tobin.4

This chapter examines imperfect competition in the capital market, using a simple general equilibrium portfolio model. It shows that the market economy is not, in general, Pareto-efficient.

It is often suggested that the market for shares in firms is one of the more competitive markets. There are a large number of buyers and sellers, and for most widely held firms – most of the largest firms in the United States – no single individual owns more than a few per cent of the shares. Moreover, shares in one firm are closely competitive with shares in other firms.

On the other hand, it is often alleged that if a firm were to increase its issue of shares, it would face a downward-sloping demand schedule for its shares.

If the former view were correct, then a security which was uncorrelated with the business cycle should be treated as essentially a safe security, and a firm, in evaluating a project, should ignore the variance of the project, but be concerned only with its correlation with the business cycle. There is a widespread view that this is in fact not the case.

These contrasting views would be resolved if the capital market were

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monopolistically competitive rather than perfectly competitive: different securities are close but not perfect substitutes for one another.

If different risky securities are not perfectly correlated, then they are imperfect substitutes for one another (in the absence of a full set of Arrow–Debreu securities). If there are many such securities, they will be close substitutes for one another, i.e. there are gains from dividing one's assets among \( n + 1 \) risky securities rather than \( n \) risky securities, but the marginal gain from the additional diversification allowed by the \( n + 1^{st} \) security may be relatively small. A risk averse individual will want to hold some of all the available securities, no matter how large the number of firms. As a result, all risky firms will perceive themselves as facing a negatively sloped demand schedule for their securities.

Consider, for instance, the situation where all risky firms are identical but not perfectly correlated; in equilibrium an individual will hold exactly the same amount of all the risky securities. If one of the firms were to contemplate raising its level of investment, it could only induce individuals to hold more of its securities by lowering the price of a unit of its securities. (The amount by which it will be lowered will not necessarily decrease as the number of firms increase; see Stiglitz, 1972a.) Alternatively, assume the firm contemplated raising the price of its shares. This would result in a slight change in the demand for them; in contrast a slight change in the price of one of two commodities that were perfect substitutes (one of two securities that were perfectly correlated) would result in the demand shifting entirely to one or the other of the commodities (securities).

One must then ask, why do individuals hold sufficiently few securities in their portfolios that are not, effectively, perfect substitutes. Several reasons can be put forward: (a) Transaction costs prevent individuals from holding more than a few securities in their portfolios. This is an unconvincing explanation, since with mutual funds, these transaction costs can be made negligible. (b) Information costs make it desirable for individuals to concentrate their portfolios. A quite forceful argument can be made on these grounds—one that is pursued elsewhere. (c) There is only a finite number of firms and the number of states of nature is infinite. The income patterns of any two arbitrarily chosen firms differ in at least some states of nature. Obviously, if there were no costs associated with setting up new firms (creating new assets), then, so long as there is a return from further diversification of risk, additional firms would be created. To explain a limitation on the number of firms there must be some non-convexity in the production process, e.g. some fixed cost associated with setting up a new firm.

It is this view which we wish to pursue in this chapter. In particular, we wish to investigate whether there will be too few or too many risky firms, whether the risky firms will be too small or too large, whether there will be 'errors' in the choice of technique, etc. Interest in these questions is motivated by three considerations: