Chapter 20
Decentralized Economic Planning

20.1 When Is Planning Necessary?

Entrepreneurs conduct economic activities that are finalized to the achievement of their individual objectives and interest. When the objectives of different — but interrelated — economic agents diverge, conflicts arise. Sometimes, the marketplace can mediate these conflicts through largely unconscious and seemingly haphazard efforts, especially when those interests are held with mild intensity. Often, conflicts must be mediated by an explicit agreement among the various actors who may delegate to a higher authority the task of resolving them. More often, finally, a higher (legal) authority assumes the responsibility of imposing on its subjects the resolution of conflicts. Consider a large corporation organized into various departments: procurement, production, marketing, financial, R & D, and personnel. All department managers are usually told to establish departmental goals of performance in their own interest and that of the department and are aware that they must compete with the other managers in the allocation of the corporation’s resources. In this situation, conflicts inevitably arise and the board of directors (or its chair) will act as a final decision maker in the interest of the corporation as a whole.

An economy has often been likened to a giant corporation, organized in sectors that operate largely as departments, establishing sectoral goals in isolation from other sectors and competing with them for the allocation of national resources such as energy, capital, and strategic raw materials. To sectoral objectives there corresponds a “common good” interest at the economywide level. Who should be the macroagent, or agency, that defines the common good objective for the economy (the invisible hand or the central planning board?) has been the subject of fierce debates for at least one hundred years. Often, the debate has become ideological and, even worse, proponents as well as opponents of economic planning have found excuses for imposing their opinions through bloody coercion.
Throughout the decades, therefore, economic planning has been heralded as a panacea for solving the problems of unbalanced economies, feared as a scheme for depriving individuals of their unrestricted freedom, glorified as the highest level of societal organization, and vituperated as a manmade misfortune. A quiet reflection on the literary and political vicissitudes of economic planning suggests that its characteristics and working have, more often than not, been misunderstood and thus badly implemented.

It seems obvious that the marketplace is incapable of mediating in a satisfactory way all the conflicts arising from the decisions of unbridled economic agents. It is clear, on the other hand, that economic planning may often act as the classical bull in the china shop. It is unfortunate that economic theory seems reduced to debate which is the lesser evil but, perhaps, this is another dimension of economics as a dismal science.

20.2 Decentralized Economic Planning and LP

This chapter will focus upon the inherent, but not inevitable, misunderstanding associated with economic planning. We will use linear programming to clarify a crucial aspect of the planning process that, very likely, has contributed to the degeneration observed in several instances. This use of LP may be surprising, at first, but its dual structure is eminently suited for exposing, in a purely logical way, the fragile nature of planning in general and economic planning in particular.

Economic planning is, first of all, a gathering of information. After the plan has been formulated, it will be implemented. We are concerned here only with the formulation of a stylized economic plan. The information exchanged between sources can be either true or false. False information is usually called misinformation and it introduces into the planning process a further psychological aspect (detecting and punishing liars) that we disregard entirely. We assume, therefore, that the information exchanged and collected by the various parties involved is true and complete. Cheaters and liars are assumed nonexistent.

When it comes to economic planning, almost everybody (from politicians to news people, from corporation executives to workers’ unions), feels entitled to express an expert opinion. This is an indication of how central to peoples’ life and how contested the subject is. A disclaimer is thus in order. This chapter does not entitle the reader (and the writer) to any feeling of expertise about economic planning; it contains only an initial understanding of the difficulties of assembling a plan and maintaining a general consensus around it, without which any successful implementation is doomed from the start.

Decentralized economic planning is a process that divides the responsibility of collecting the information needed for formulating the plan between a center (central planning board) and the periphery (sectors). We will not discuss centralized planning, which assumes, by definition, that all the information already resides at the center. Centralized planning is utopian and, therefore, uninteresting.