

## DON PATINKIN'S CONTRIBUTION TO MONETARY THEORY

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I first met Don Patinkin when I was demobbed in 1949, after serving for many years in the Palmach, and moved to Jerusalem together with my friend Eliezer Sheffer to begin studying economics. Patinkin, who was a young lecturer, impressed us immensely with his excellent teaching method and modest, friendly personality. Over the years we became colleagues and close friends. But I am not going to talk about that today. The subject I have been asked to speak about is Don Patinkin's contribution to monetary theory.

Don's contribution to monetary theory found expression in four main spheres:

1. Presenting a closed and elegant monetary model, as expressed in his monumental book, *Money, Interest and Prices (MIP)*.
2. Don's criticism of the monetary model as presented in its day by the classical and neo-classical economists.
3. His analysis of involuntary unemployment.
4. His formal analysis of the Keynesian model.

I will now discuss these topics in greater detail.

### 1. THE MIP MODEL

Constructing a macroeconomic model on microeconomic foundations was innovative at the time. When the first edition of *MIP* was published, in 1956, Don established the money demand from the optimization of the individual in a model where real balances appear in the utility function. In the second edition (1965) he added the speculative motive of the money demand, within the framework of the selection of an optimal investment portfolio in accordance with the Baumol-Tobin inventory approach. He subsequently used the money demand derived in this way as the foundation stone of his macroeconomic model.

He applied his demands regarding his criticism of the literature to himself in analyzing the money market. These principles were:

1. Recognizing the difference between economic experiment at the level of the individual and at that of the market. For example, an increase in the money supply always has a real effect at the level of the individual, but does not usually have an effect of that kind at the level of the market because of price increases (at full employment).
2. Understanding the effect of real balances as a stabilizing economic factor, at least theoretically.
3. Analyzing the dynamic stability of the money market, like any other market, in terms of Walras' Tatonnement.

## 2. CRITICISM OF THE LITERATURE

Don's contribution in this sphere focused mainly on what he called the invalid dichotomy, or non-legitimate separation. It was customary to divide the economy into two sectors: the nonfinancial sector (excluding the money supply), where relative prices are determined, and the monetary sector, which includes the money supply and where the general price level is determined, in accordance with a specific version of the quantity theory of money.

Don claimed that this separation was not legitimate, because the Walras Law determined that excess money demand is identical to excess supply in all the other markets, and it constitutes a logical error if the money supply is excluded from the excess demand for goods functions.<sup>1</sup>

In order to prove that the monetary economists were in fact thinking in terms of the invalid dichotomy, Don amassed a 'database' of the relevant literature, and claimed that even renowned economists were thinking in those terms. Samuelson, who agreed with Don's criticism in principle, asserted that this criticism was too harsh. Samuelson thought that the monetarists had understood the idea of the dichotomy intuitively. But in view of several critical articles on Don's work which tried to justify that dichotomy, it may be assumed that Don's criticism was justified from the point of view of tightening of professional discipline in economic literature.

## 3. INVOLUNTARY UNEMPLOYMENT

### *(i) Don Patinkin's approach*

This is a subject which was of particular interest to Don. It should be remembered that the background to the Keynesian literature was the depression that affected the western world in the 1930s. The theoretical problem was whether capitalism possessed an *automatic* mechanism for solving the problem of mass unemployment. In particular, why could not workers reduce the extent of unemployment by reducing their real wage? This topic preoccupied Don from the beginning of his scientific work.

Don's approach was that the problem of unemployment was not the absence of static equilibrium in the labor market, but that the *dynamic* process of returning to equilibrium from a situation of unemployment could be very protracted and even non-convergent (because of pessimistic expectations). Hence, it was impossible to rely on the fact that the capitalist economy would engender convergence to full-employment equilibrium within a reasonable period of time.

### *(ii) A few words about the economy of disequilibrium arising from the previous subject*

The Keynesian approach that output itself is an equilibrating factor, given rigidities of wages and prices, led to many important conclusions for economic policy. In theoretical terms, however, this approach was full of holes. Although, in accordance with Don's approach, Keynes assumed that firms were always on the labor-demand curve, the question was what was the significance of that curve when firms were unable to sell the planned product because of a shortfall in aggregate demand? Consequently, Don assumed that when

<sup>1</sup> Of course, Don recognized the fact that when the effect of real balances is directed only to the bond market they can occur solely in that market, in which case interest must appear in the excess demand for goods function.

firms were unable to sell their competitive product they would reduce their demand for labor.

The analysis of this problem in Chapter 13 of *MIP* led to the development of a model of the economics of disequilibrium. Barro-Grossman extended Don's idea by incorporating the Clower assumption that if workers are unable to provide the competitive supply of labor they will not buy the competitive amount of products. Barro-Grossman showed that it is possible to formulate a kind of equilibrium in which firms are constrained by the shortfall in aggregate demand and workers are constrained by the inability to realize the supply of labor services (i.e., by involuntary unemployment).

But the fact is that the models of disequilibrium reached a dead end in the 1970s. Some people attribute this to the fact that over time awareness grew that these models involved arbitrary assumptions about the way resources are rationed in conditions of disequilibrium, while others ascribed it to the assessment that these models are too complex mathematically. At any event, Don was aware of the limitations of the disequilibrium model in explaining involuntary unemployment. Indeed, in subsequent years there was a turnaround in research strategy, and instead of assuming nominal or real rigidities, an attempt was made to derive them as a consequence of optimal behavior. Since this required relating to price-setters, this led to the neglect of the competitive model based on price-takers, and to a transition to a model of monopolistic competition. But these were later developments to which Don was not party. Throughout *MIP* Don stuck to the competitive model, despite Arrow's comment that given disequilibrium this model has functional problems. In my view, this attests to a certain conservatism in Don's economic approach.

#### 4. THE INTERPRETATION AND FORMAL FORMULATION OF THE KEYNESIAN MODEL

The fourth sphere in which Don left his mark on monetary theory is the interpretation and formulation of Keynes' ideas. Keynes published his major book in 1936, in informal form and it served as a launching-pad for various interpretations. Don provided one of the accepted formal explanations, claiming that Keynes assumed in effect that firms were always on the labor demand curve, their exact position being determined by aggregate demand. The contention is that aggregate demand determines employment, which in equilibrium determines the real wage, and the latter determines unemployment. Thus, the shortfall in aggregate demand indirectly determines unemployment. The key to unemployment, according to this interpretation, is the shortfall in aggregate demand, in accordance with the Keynesian approach. Don's explanation brought some kind of order to the presentation of the Keynesian model.

In conclusion, Don Patinkin's contribution to monetary theory in the 1950s and 1960s constituted a bridge between classic *laissez-faire* monetary theory (without government involvement) and the Keynesian theory of vigorous government intervention to prevent unemployment, combining these two theories as an introduction to future theoretical developments.

It is hardly surprising that *MIP* is regarded as second in importance only to Keynes' book in the macroeconomics of that period.