CLOWER ON EFFECTIVE DEMAND

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INTRODUCTION

In a paper published recently in this journal Clower [1994] claims that "Keynes' account of 'The Principle of Effective Demand' merely restates in aggregative form a Marshallian partial equilibrium demand and supply model, and so adds nothing (other than empty polemics) to 'classical theory'" [ibid, 377]. He suggests, in particular, that the possibility of short-run equilibrium below capacity "calls for no comment on the level of employment of factor services" [ibid., 381]. Clower goes on to argue that traditional Keynesian doctrine owes little or nothing to Keynes' original theory, and that indeed there is an "inconsistency between Keynes' *formal treatment* of the theory of effective demand, which implies clearing output markets, and Keynes' *ex cathedra polemics* about effective demand failures" [ibid, 383, italics in original]. This alleged inconsistency and "the *analytical* irrelevance of the effective demand theme in Keynes' analysis" [ibid., 383; italics in original] is reflected in the title of Clower's paper: "The Effective Demand Fraud".

In this note we argue that although some of Clower's observations are correct, his reconstruction of Keynes has serious weaknesses. Moreover, the observations which are correct are well known and do not have the implications that Clower suggests. Keynes' insights may sometimes be forgotten or distorted but he most definitely did add to classical theory and there is no effective demand fraud.[1]

CLOWER'S CLAIMS

We list four claims made by Clower, and evaluate each in turn.

Claim 1: Keynes' principle of effective demand "*merely* restates in aggregative form a Marshallian *partial* equilibrium model, and so *adds nothing* (other than empty polemics) to 'classical theory'" [ibid, 377, italics added].

Keynes makes it quite clear that he is adapting a Marshallian approach to the analysis of aggregate output and employment. Thus, the determination of the equilibrium price level is described briefly in the preface to the French edition of *The General Theory*:

> I regard the price level as a whole as being determined in precisely the same way as individual prices; that is to say, under the influence of demand and supply. [*JMKVII*, xxxiv]

The prefaces to both the Japanese and German editions open with the observation that Alfred Marshall's

> theory of output and consumption as a whole, as distinct from his theory of the production and distribution of a *given* output, was never separately expounded. Whether he himself felt the need of such a theory, I am not sure. But his immediate successors and followers have certainly dispensed with it and have not, apparently, felt the lack of it. It was in this atmosphere that I was brought up. I taught these doctrines myself and it is only within the last decade that I have been conscious of their insufficiency. In my own thought and development, *therefore*, this book represents a reaction, a transition away from the English classical (or orthodox) tradition. [*JMKVII*, xxv and, repeated identically, xxix; first case of italics in original, second case added]

The transition consists precisely in developing a Marshallian theory of output and consumption as a whole. That Keynes' principle of effective demand can be seen as an aggregative form of Marshallian equilibrium supply and demand is thus acknowledged by Keynes himself. This close connection between Marshallian theory and Keynes' theory has been noted by many Keynesian interpreters.[2] However, this characterization does not imply that Keynes' analysis "adds nothing."[3]

We take this latter claim to mean that aside from a simple relabeling of the axes when the analysis changes from the level of the individual firm or industry to the economy as a whole, Keynes' theory is no different from the theories of Marshall and the "classics." Given this interpretation, the claim is incorrect. The "classical" analysis was deficient precisely because of its inappropriate extension of microeconomic reasoning to the economy as a whole.[4]

The *General Theory* takes into account the interrelations among the different markets. Considerable care therefore was needed in constructing the aggregate demand curve. The demand curve for a single industry can be derived on the assumption that aggregate income and the price of other goods remain constant. For the aggregate economy, this *ceteris paribus* assumption breaks down, and Keynes devoted fifteen chapters of *The General Theory* [1936, Ch. 4-18] to the derivation and discussion of aggregate demand and its components, discussing in great detail the determinants of consumption and investment demand, dealing with goods and asset market issues.

In his Marshallesque model, by contrast, Clower merely *assumes* that aggregate demand price is a downward sloping function of aggregate output [1994, 379] and then suggests in a footnote that the curve may shift depending on "such imponderables as 'the state of confidence', 'autonomous expenditure', uncertainty about future economic conditions', etc." [1994, 384]. That is all very well as a *summary* presentation of some Keynesian insights.[5] But this summary presentation is inadequate when it comes to analyzing the determinants of possible shifts in the curves (cf. the discussion below of claim 2), and without the intervening work by Keynes and subsequent Keynesians, Clower's construction would, we submit, appear quite underdeveloped. Since Keynes' analysis, itself, informs and gives meaning to Clower's stylized model, his claim that Keynes added nothing seems incomprehensible.

> *Claim 2:* "If output equilibrium occurs in the Marshallesque output market at a level of output below capacity [*JMKVII*, 26], as it certainly may, *that calls for no comment on the level of employment of factor services*". [1994, 381, italics added]

This claim, especially the wording at the critical point italicized, is quite opaque. If, however, the statement — and Clower's article in general — is to be meaningful, then presumably Clower disputes Keynes' own "comment," that is, Keynes' analysis of the implications of his theory for the level of employment of factor services.

Keynes' comment can be paraphrased quite briefly. The determination of the short-run equilibrium level of output and employment by effective demand — that is, by the intersection of the aggregate demand and supply functions — can lead to involuntary unemployment in the following sense: the real wage rate at the equilibrium may exceed the marginal disutility of work, and when this happens, an increase in aggregate demand (e.g., through expansionary fiscal or monetary policy) can generate a new equilibrium with a higher level of output and employment and a lower real wage rate. This, however, is not the full story.

The analysis of short-run equilibrium in chapters 4-18 of the *General Theory* takes as given the money wage rate. This procedure can be questioned: the equilibrium level of employment is conditional on the money wage rate and wage flexibility (rather than aggregate demand policy) could be the key to full employment. This standard neoclassical position could explain Clower's cryptic claim. Whether in fact Clower endorses this neoclassical position is unclear to us. However, the *General Theory* explicitly rejects the neoclassical view.[6] This rejection, which is the central message of the *General Theory*, is made clear in the early chapters (see e.g., pages 10-12) and argued more fully in Chapter 19, which opens with the following paragraph:

> It would have been an advantage if the effects of a change in money-wages could have been discussed in an earlier chapter. For the Classical Theory has been accustomed to rest the supposedly self-adjusting character of the economic system on an assumed fluidity of the money-wages;... . [1936, 257]

The classical analysis was based on a false analogy between the partial analysis of a single industry and the analysis of the system as a whole:

> For the demand schedules for particular industries can only be constructed on some fixed assumption as to the nature of the demand and supply schedules of other industries and as to the amount of aggregate effective demand. It is invalid, therefore, to transfer the argument to industry as a whole unless we also transfer our assumption that the aggregate effective demand is fixed. Yet this assumption reduces the argument to an *ignoratio elenchi*. For, whilst no one would wish to deny the proposition that a reduction in money-wages *accompanied by the same aggregate effective demand as before* will be associated with an increase in employment, the precise question at issue is whether the reduction in money-wages will or will not be accompanied by the same aggregate effective demand as before measured in money,... . [1936, 259]

This is where the careful analysis of the determinants of aggregate demand and supply becomes important. Using the apparatus developed in chapters 4-18, Keynes identified a number of channels through which changes in money wages would affect the equilibrium level of output and employment. Some of the effects are expansionary but others tend to reduce aggregate demand (e.g., redistributions of income and wealth and changes in inflationary expectations). Keynes concluded that, on balance, far from stabilizing the system, flexible money wages would be a source of instability [1936, 269]. Hence,

> ...the maintenance of a stable general level of money-wages is, on a balance of considerations, the most advisable policy for a closed system;... . [1936, 270]

Most so-called Keynesian models deviate from the economics of Keynes on this issue. Thus, the textbook Keynesian model suggests that demand policies may help alleviate unemployment problems but that the stickiness of nominal wages and prices are to blame for unemployment. Even in the absence of intervention the problems will be temporary in the textbook model unless it is assumed (implausibly) that money-wages are completely rigid in the face of involuntary unemployment. This result and the stabilizing effects of wage flexibility are obtained by emphasizing (and exaggerating) the expansionary effects of wage reductions and ignoring the adverse effects.

One may, of course, question Keynes' assumptions and disagree with his theory. But Clower raises neither theoretical nor empirical objections of this kind. His criticism appears to concern the logic and/or interpretation of Keynes' system. As such the criticism appears to us unfounded: Keynes' analysis of the determination of output and employment by the principle of effective demand does have important implications for the level of employment of factor services.

> *Claim 3:* Keynes "insinuated" that unemployment derived from the non-clearance of the market for output and in doing so "committed a (probably intentional) fraud" [1994, 381]. Furthermore, the "effective demand theme" is analytically irrelevant in Keynes' analysis [ibid., 383].

Keynes' determination of short-run equilibrium at the intersection of the aggregate demand and supply functions has several implications. Producers are on their supply curve and no individual producer therefore "feels sales-constrained" [Clower, 1994, 380]. Furthermore, shifts in aggregate demand or supply will in general affect both the equilibrium output and the equilibrium price. These two implications of the theory are straightforward, and Keynes was absolutely clear on both issues.[7] We therefore find this third claim by Clower highly surprising. In support of his claim, Clower merely refers to chapter 3 of *The General Theory*, and we are not sure what he may have had in mind. Chapter 3 clearly and unambiguously states that the short-run equilibrium is at the intersection of the aggregate supply and demand functions, and that by construction, if firms are on the aggregate supply function, the first-order conditions for profit maximization are satisfied.[8]

Clower's comments on the analytical irrelevance of effective demand may simply reflect a terminological confusion. Keynes' terminology may, in the light of later usage, give the impression that the supply side is being ignored when one refers to effective demand. However, effective demand is defined by Keynes as the value of aggregate demand "at the point of the aggregate demand function, where it is intersected by the aggregate supply function" [Clower, 1994, 25]. Hence, a determination of the level of employment by effective demand implies neither a neglect of the supply side nor a claim of non-clearing output markets.

Since we find no evidence of fraud, the question of intent does not arise. But even if Keynes had been guilty of fraud, Clower's conclusion [1994, Note 12] of intentionality seems farfetched: the only evidence presented by Clower is a letter to Harrod in which Keynes comments that his new theory will become understood only through controversy.

> *Claim 4:* What presently passes for Keynesian economics "owes nothing but its initial inspiration to Keynes' *General Theory*" [1994, 377], and the "Keynesian" fix-price assumptions (i) are incompatible with profit maximization and (ii) eliminate business price-making decisions [ibid., 382].

As indicated above, we agree that Keynesian economics differs from the economics of Keynes. The key difference, however, concerns the effects of money-wage flexibility. This difference is not, it seems, what Clower has in mind. Instead, he stresses the fact that some versions of Keynesian theory assume fixed prices, and that this assumption may involve inconsistencies, violate profit maximization, and imply a neglect of price-making decisions.

It is undoubtedly correct that some models are afflicted by these problems, but two points seem in order. If quantity constrained output markets have been introduced into the "Keynesian" literature, responsibility for that may be placed in large part on those who have adopted the Walrasian fix-price approach. Somewhat ironically, Clower [1965] can be seen as a precursor to this literature; subsequently Clower [1975] expresses misgivings about the Walrasian approach. Secondly, constant prices can be compatible with profit-maximizing behavior and the absence of quantity rationing in the product market: the level at which prices are fixed may itself be determined by optimizing behavior. Thus, a simple Kaleckian model with constant marginal cost below full capacity and constant-elasticity conjectured demand curves implies that profit-maximizing firms will apply a constant markup. In other words, as long as the money wage rate and the prices of other variable inputs remain constant, the price of output will also be fixed for all output levels below full capacity. Far from eliminating price-making, this Kaleckian model with imperfect competition gives businesses an active role in price-making, a role they do not have under perfect competition.

CONCLUSION

In *The General Theory* Keynes extended the partial-equilibrium Marshallian approach to the examination of general equilibrium for the economy as a whole. Given the enduring popularity of Walrasian fix-price interpretations, this simple observation is worth making, and we fully agree with Clower on the Marshallian roots of Keynes' analysis (but not with Clower's claim that the extension was trivial). Unfortunately, Clower's subsequent analysis contains, we believe, serious errors and misinterpretations.

Keynes' theory of effective demand does not depend on non-clearing output markets, and we fail to understand Clower's claim that Keynes insinuated as much. Even more importantly, Clower's suggestion that Keynes' analysis carries no implications for an understanding of unemployment is, we have argued, incorrect (and his reasons for making this claim seem incomprehensible). Keynes argued, convincingly in our view, that increased wage flexibility would fail to stabilize a closed economy at full employment. Policy recommendations that focus exclusively on wage (and price) flexibility are thus fundamentally flawed. The failure to grasp this point — or even address the issue — unites most "love-child" Keynesians, monetarists, "new" (and old) Classicals and "new" Keynesians, and sets them apart from "old" Keynesians like Tobin [1993], the post-Keynesians, and Keynes himself.

NOTES

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1. Many of the points in this paper will (we hope) be well-known. We have ourselves discussed some of the issues more extensively elsewhere, and similar arguments have been made by a number of other writers; see for example, Chick [1983], Dutt [1987], Dutt and Amadeo [1990], Harcourt [1981; 1985], Hicks [1937; 1974], Skott [1990] and Tobin [1993].
2. The Marshallian influence in our view is particularly relevant with respect to the treatment of temporal aspects and the role of expectations [Skott, 1990; Dutt, 1994]. Interestingly, Clower [1960] also emphasized dynamics as the essence of the Keynesian revolution.
3. The extension of the industry demand/supply diagram to the economy as a whole clearly was not as easy and straightforward as suggested by Clower in his paper. Keynes himself referred to his "long struggle of escape ... from habitual modes of thought" [1936, viii]. If his theory really added nothing and the extension is straightforward, one wonders why subsequent scholars have such difficulty realizing that it "merely" amounted to an aggregate version of Marshall.
4. In the preface to the French edition of *The General Theory*, for instance, Keynes states that

   > I have called my theory a *general* theory. I mean by this that I am chiefly concerned with the behaviour of the economic system as a whole, - with aggregate incomes, aggregate profits, aggregate output, aggregate employment, aggregate investment, aggregate saving rather than with incomes, profits, output, employment, investment and saving of particular industries, firms or individuals. And I argue that important mistakes have been made through extending to the system as a whole conclusions which have been correctly arrived at in respect of a part of it taken in isolation. [*JMKVII*, xxxii; italics in original]

5. Clower's emphasis in this and earlier papers on the role of "middlemen," "thin markets," "marketors" and "marketees," however, may obscure the crucial Marshallian features of Keynes' analysis. We do not discuss this at greater length here since we agree with Clower's Marshallian interpretation of Keynes.
6. Throughout this paper we assume, following Keynes' analysis in *The General Theory*, a closed economy.
7. Hicks' [1937] original formulation of the SI-LL model also included the "first postulate" of classical economics and the absence of quantity constraints explicitly.
8. The clearance of the output market is implied already in chapter 2 by Keynes' acceptance of the first postulate. Keynes subsequently makes it quite explicit that the conditions for individual maximization of (expected) profits are satisfied along the supply curve and therefore at the short-run equilibrium: "the effective demand is the point on the aggregate demand function which becomes effective because, taken in conjunction with the conditions of supply, it corresponds to the level of employment which maximizes the entrepreneur's expectation of profit" [1936, 55].

   Keynes' mathematical analysis in footnote 2 [1936, 55] of the implications of this for the shape of the aggregate supply function is faulty, but for present purposes that is irrelevant.

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