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INCREASING RETURNS AND THE FOUNDATIONS OF UNEMPLOYMENT THEORY: REJOINDER

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At first I thought I would reply to each specific point of Mr. Hollaender's comment by addressing, more or less seriatim, the specific issues being raised as best I could understand them. Now I do not think that is the best approach. The issues are too disparate, and I fear getting entangled in a web of semantics and mathematical formulae. Instead, I think it would be more fruitful if I dealt very briefly with what I think are the main themes Hollaender is raising and then used the opportunity to restate as simply as possible my general thesis, taking into account those criticisms that seem to me most relevant.

Hollaender's main initial criticism is that if one assumes that utilisation rates of all resource units are identical, rather than assuming as I do that the unemployed are uniformly distributed, then the trade-off between unemployment and the number of firms disappears altogether. This point I do not understand. The analysis should be identical in either case. If I had made Hollaender's assumption I would get the same results as before. Indeed, the expressions N and u do not appear separately in the basic formulas (22)–(25), but only appear as the combination $N(1-u)$.

The remainder of his note is mostly concerned with the employment effects of flexible wages and entry. While I do not fully agree with his formulation, I think that Hollaender is here making the generally valid point that a fully rigorous argument should contain a more explicit statement about expectations than I have in the paper.

Where does all this leave the macroeconomic role of increasing returns? Let me try to restate what I consider the essential issues as simply as possible, eschewing all formalism.

Suppose, just for the sake of argument, we lived in a world where there was strict constant returns to scale – down to the level of a person or even a grain of sand, or even, if that were necessary, an atom. The standard reasons for macroeconomic failure would continue to hold. Money might be non-neutral, there could be a genuine role for government as a Pareto-improver of social welfare, etc., etc. But, and here is the crucial distinction, *there can be no involuntary unemployment with strict constant returns to scale in all aspects of technology*. Note carefully the claim: some form of increasing returns is a *necessary*, but by no means *sufficient*, condition for genuine involuntary unemployment. Under constant returns, the macroeconomic inefficiencies would show themselves in the form of 'wrong' labour–leisure choices (or, more generally, wrong substitution choices among various factors and commodities). An economy of blueberry pickers, mushroom gatherers, and clam diggers cannot exhibit involuntary unemployment no matter what else is present or absent. It can show fluctuations, inefficiencies, poverty, even starvation, but it cannot show

involuntary unemployment. Any 'involuntarily unemployed' resource would merely form itself into a mini-firm, hire (with non-increasing returns to scale in borrowing) a few grains of cooperating input, and sell its mini-output on competitive markets. Balanced expansion would take care of the rest. Involuntary unemployment is logically impossible in a strict constant-returns-to-scale world of one-person firms.

Now it seems to me that the really damaging macroeconomic inefficiencies of advanced capitalist countries are caused by involuntary unemployment, not by the wrong labour–leisure choice. I doubt that Keynes would ever have written his book if he had lived in a constant-returns-to-scale world because there would never have been a great depression. It seems to me that if we could magically turn our economy into a constant returns system – if the automobile worker laid off from a 1,000-man plant could produce in his home workshop 1/1,000th of what that plant produces (by using in his home workshop 1/1,000th of its capital) – we would have eliminated the lion's share of macroeconomic losses due to coordination failures. Other coordination inefficiencies admittedly might remain, but my casual empiricism tells me they would be orders of magnitude smaller in terms of welfare losses.

So I see increasing returns and imperfect competition as not just another minor detail, but as crucial aspects of the Keynesian story. That story simply cannot be told at all credibly or completely without something like increasing returns blocking unemployed labourers from working on their own or in small groups. It was to focus as sharply as possible on the underlying 'real' role of increasing returns and imperfect competition that I attempted (perhaps unsuccessfully) to trim away as much as possible of all else from the model. (Certainly there is a crucial place, in any complete story, for expectations, money, sticky wage contours, and so forth – my basic point being that increasing returns constitutes a necessary, but by no means sufficient, condition for the existence of involuntary unemployment.) Furthermore, as I tried to show in the paper, the quantity-adjustment mechanisms which play such an important role in the operational part of Keynesian theory can be grounded more solidly in imperfect competition than in perfect competition, where they really do represent an artificial intrusion.

In most reasonable models of an economy with non-trivial increasing returns to scale, there is going to be a theorem showing that higher levels of equilibrium employment are associated with higher real wages. This aspect comes out quite clearly in the model under discussion and I believe it obtains under fairly general circumstances. The existence of economies of scale will generally mean that higher levels of long-run economic activity go together with higher real pay. Now pro-cyclical real wages is a very unclassical feature which not only corresponds empirically to what we frequently observe in the real world, but makes it theoretically difficult to accept the idea that the economic system can automatically, and relatively easily, adjust itself toward full employment. After all, the classical argument is that unemployment will be eliminated by *downward* pressure on wages. Arguing where burdens of proof lie is always tricky, but it seems to me that the burden of proof here rests squarely on whomever would assert that downward pressed (money) wages spontaneously cause the *increased*

real wages that accompany higher employment. For that to happen, prices must decline even faster than wages. It is possible, but some good stories have to be told. Here is yet another indication that economies of scale form a natural backdrop for Keynesian macroeconomics.

As I perhaps did not sufficiently stress in my paper, but have been at pains to emphasise here, it is not increasing returns *alone* that causes involuntary unemployment. Other ingredients like money, expectations of other firms' responses (which Hollaender emphasises), reasonable specifications of tastes, a sticky wage contour of equal pay for equal work, and so forth are also needed to give a credible account of involuntary unemployment. Yet, I would maintain, it is important to not lose sight of the forest for the trees. Large scale division of labour makes for an economic environment in which, as contrasted with constant returns, it really is quite fundamentally difficult to tell reasonable stories about how a market economy naturally adjusts to create full employment.

There is at least one additional reason why increasing returns and imperfect competition are essential ingredients in the Keynesian approach. This reason I believe to be the most important of all. It has to do with where the subject of macroeconomics is going, or ought to be going.

The current failure of economic policy is not so much a failure of the Keynesian case for government intervention *per se*, so much as it is a failure to find new ways of permitting a high level of employment to coexist with low inflation. The general considerations put forth by Keynes and others for justifying government intervention to improve the macroeconomic environment do not indicate the best *form* of government policy. Keynes naturally thought in terms of standard fiscal and monetary instruments to manage aggregate demand. But there is no reason why such sledgehammer tools should remain equally appropriate for dealing with the macroeconomic problems of our own day.

It is my contention that Keynesian economists have not been nearly imaginative enough in devising new mechanisms for dealing with stagflation. This lack of imagination goes completely against the spirit of Keynes himself. As E. A. G. Robinson has expressed the thought recently, there has been a 'failure of our generation to analyse clearly the essential preconditions of reconciling a high level of employment with avoidance of inflation, to identify the institutional changes necessary to achieve this, and then to establish first a consensus and then action regarding the making of the institutional changes.'

What is most desperately needed, in my opinion, is an improved framework of microeconomic incentives to induce *automatically* better output, employment, and pricing decisions at the level of the firm, thereby reducing the need to rely so exclusively on discretionary macroeconomic policy. In this search for an improved economic mechanism, the ideas of increasing returns and imperfect competition within a Keynesian macrostructure will, I am convinced, play a central role.

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