Economic Theory: Past and Future

Murray C. Kemp

For twenty years I have enjoyed a close and harmonious relationship with Kobe University and, in particular, with the Research Institute for Economics and Business Administration.

It therefore gives me great pleasure to receive from the University its highest award and to receive it in the presence of many close friends, including several former students.

This is an occasion for reflection – on the path traveled and on the path to be taken – and this evening I offer you some quite personal thoughts on the present state of economic theory. They are, for the most part, grey thoughts but you will detect in them a strong undercurrent of hope for the future.

During the last half-century, that is, during my own professional lifetime, we have worked in an intellectual environment dominated by two bodies of thought.

The first is based on the pioneering work of Léon Walras, Kenneth Arrow, Gérard Debreu and Lionel McKenzie.

The second has grown out of the work of Eli Heckscher, Bertil Ohlin, Abba Lerner and Paul Samuelson.

For brevity (but unhistorically, unfairly, and ungrammatically) I will refer to these two bodies of thought as "Walrasian"and " Heckscher-Ohlin."

Within this environment, our work has for the most part been of the comparative static kind, with our normative calculations rooted in the Walrasian paradigm and our descriptive calculations rooted in the Heckscher-Ohlin paradigm.

This neat division of labor is, at first sight, puzzling. For after all, the Heckscher-Ohlin model is merely a special case of the Walrasian. Why then do we persist with Heckscher-Ohlin? The answer is painfully obvious: the Walrasian model yields no descriptive comparative statics; more precisely, it

yields no descriptive comparative statics that are easy to interpret and also profound, that is, answer questions that are interesting and non-trivial.

To obtain descriptive results of that kind we have taken on board the family of special Heckscher-Ohlin assumptions, and we have been rewarded with the Stolper-Samuelson, Rybczynski, Heckscher-Ohlin, Factor Price Equalization and Hicks-Ikema propositions.

Most of those assumptions are well known; one easily remembers constant returns to scale, non-joint production and small numbers of just about everything.

But there are other assumptions, assumptions that are rarely mentioned, even in formal expositions of Heckscher-Ohlin theory. Here I think specially of zero costs of factor re-allocation, representative agents and existence of autarchic equilibria for all trading countries.

We have long known that each of the five Heckscher-Ohlin propositions must be qualified if the assumptions of constant returns, non-jointness and small dimensions are relaxed. What we are now beginning to understand is that those propositions crumble and entirely disappear if the hitherto hidden assumptions are relaxed.

Let me briefly explain, beginning with the assumption that all trading countries have autarchic equilibria. Casual observation suggests that even wealthy trading nations may lack autarchic equilibria. In particular, they may lack the climate and fertile land needed for subsistence food production; one thinks of Holland, Belgium, Ireland, Singapore and even the United Kingdom and Japan.

Such countries were once able to survive in autarchy; indeed there may once have been no alternative to autarchy. Over the years, however, trade based wealth may have induced a substantial increase in population, to the point where it cannot be supported in autarchy.

If a country has no autarchic equilibrium, and if there are just two traded goods, the offer curve of that country consists of two disjoint segments; and this in turn suggests that, if there are just two countries, the offer curves of those countries may fail to intersect.

Thus the absence of an autarchic equilibrium, even for one country may ensure the absence of a world trading equilibrium.

Clearly the Heckscher-Ohlin depiction of world equilibrium in terms of an intersection of continuous offer curves must be revised.

Similarly the common belief that any distortion free Walrasian economy must benefit from the opening of its frontiers, whatever the characteristics of other economies, must be reconsidered.

Let me now change tack and briefly consider another of the hidden Heckscher-Ohlin assumptions, that the reallocation of factors is costless. If that assumption is dropped, so that a factor of production may earn different rewards in different industries, even in stationary equilibrium, then, quite simply, all five Heckscher-Ohlin propositions should be abandoned.

Finally, changing direction again, let us consider, even more briefly, the hidden Heckscher-Ohlin assumption of the representative agent. We now know that if that assumption is seriously relaxed, so that the Sonnenschein-Debreu-Mantel proposition comes into play, then even normative Heckscher-Ohlin results must be foregone.

That completes the act of demolition. Where do we go from here? Some of you will recall that, thirty years ago, Ivor Pearce suggested that we should abandon the Heckscher-Ohlin model. He thought that *any* tailoring of theory to achieve easily interpreted comparative statics is indefensible. According to Pearce, the task of the theorist is to ask comparative static questions on the basis of very general theory and then leave it to the econometrician to find approximate answers.

I could not agree with Ivor Pearce when he issued his manifesto; and I still cannot join him. We cannot get along without restricted theoretical models. At the very least, they help us to sharpen the questions asked of econometricians – including Ivor Pearce's own questions.

But we should not place our faith in a single body of theory. By all means, let us keep Heckscher-Ohlin. It has much to teach us about the role of factor endowments in determining the shape of the world equilibrium. But we need

competing theories, each highlighting a particular subset of processes and collectively providing a set of hypotheses from which econometricians can choose. Perhaps some of them will do without the three hidden assumptions of Heckscher-Ohlin. I hope so.