

## Walrasian Outcomes in a Bilateral Monopoly

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(joint work with P. Dubey)

**Abstract.** As is well-known, Walrasian economics is built upon the Hypothesis of Perfect Competition which can be stated concisely that prices are publicly quoted and are viewed by the economic agents as exogenously given. Attempts to go beyond Walrasian economics have thus mostly involved giving a theoretical explanation of the Hypothesis itself. Among these the most remarkable are without doubt the 19<sup>th</sup> century contributions of Cournot and Edgeworth. The Cournot approach has experienced a vivid revival in what has been called „Non-cooperative Approaches to the Theory of Perfect Competition“. The features common to most of these articles are:

- a) The strategies employed by the agents are of the Cournot type, i.e., consist in naming quantities.
- b) The size of the market relative to the individual agent is the key explanatory variable for the tendency of non-cooperative behaviour to approximate perfect competition and, in its wake, to lead to Walrasian outcomes.

The extension of pure quantity strategies from Cournot's partial equilibrium model of oligopoly to a general equilibrium framework, however, raises questions. Underlying the Cournot model is a demand curve for the particular market under consideration which enables the suppliers to relate quantities (via prices) to expected receipts. If such a close relationship is missing, then it seems more natural that agents will no longer confine themselves to quantities, but will also quote prices as part of their trading strategy. Not only this, but they will differentiate the prices with the quantities quoted. When we allow them to do this in a continuous manner, an interesting phenomenon occurs: *perfect competition is no longer a prerequisite for Walrasian analysis*. Provided only that the market for each commodity is „open“ (i.e. has active trade in it), and no matter how „thin“ the markets are, we find that strategic and Walras equilibria coincide. Our result thus provides a rationale for Walrasian outcomes in terms of strategic behaviour, even in the case of a bilateral monopoly.