

A Functional Analytic View of Economic Equilibrium

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ABSTRACT: The classical Arrow–debreu model of General Economic Equilibrium asserts that in an economy with a finite dimensional space of goods and services there always exist equilibrium prices for which the supply and demand of the economy coincide. There are several mathematical models that present proofs of this result. In this talk we shall indicate how one can prove such a theorem using functional analytic methods and then proceed to build a similar model for an economy with an infinite number of goods and agents. (These infinite dimensional models can be thought of as limits of the finite dimensional ones.) The talk will present several powerful functional analytic tools that are employed in the analysis of modern Equilibrium Theory and Finance.