Monotone Comparative Statics for Equilibrium Problems

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We introduce a notion of substitutability for correspondences and establish a monotone comparative static result, unifying results such as the inverse isotonicity of M-matrices, Berry, Gandhi and Haile's identification of demand systems, monotone comparative statics, and results on the structure of the core of matching games without transfers (Gale and Shapley) and with transfers (Demange and Gale). More specifically, we introduce the notions of 'unified gross substitutes' and 'nonreversingness' and show that if Q is a supply correspondence defined on a set of prices P which is a sublattice of R^N, and Q satisfies these two properties, then the set of prices yielding supply vector q is increasing (in the strong set order) in q; and it is a sublattice of P.