Erratum: Price Dispersion and Stockpiling by Consumers

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There is a mistake in the proof of the existence of equilibrium (Section 5) of Bucovetsky (1983). Paul Anglin, of the University of Western Ontario, has pointed this out to me, noting the sequence $F^i$ of functions constructed in the proof is not Cauchy, as alleged at the top of page 451. There I claimed that a sufficient condition for the sequence $F^i$ to be Cauchy was that \( \lim_{i \to \infty} \| F^{i+1} - F^i \| = 0 \). This is obviously wrong; I need \( \lim_{M \to \infty, i, m > M} \| F^i - F^m \| = 0 \), which condition the sequence constructed does not satisfy.

However the theorem is correct, and can be proved in a more straightforward manner also suggested by Mr. Anglin. Consider the space \( \mathcal{F} \) of distribution functions on \([c, r]\) (i.e. the set of non-negative non-decreasing, Lebesgue-measureable functions \( F \) such that \( F(r) = 1 \)). This space is a convex compact subspace of a Banach space. Hence Schauder's Theorem (Simmons (1963), p. 338) implies any continuous map on this space has a fixed point. The map which takes any distribution function \( F \) into the function \( \Psi \) defined (equation (13)) on page 450 of the original paper is such a mapping (the superscripts there should now be ignored). As should be clear from the discussion there of the properties of \( \Psi \), the fixed point of this mapping is an equilibrium. Therefore the construction of the sequence of \( F^i \)'s, and its limit, on page 451 is both invalid and unnecessary. I apologize for the error, and thank Paul Anglin for uncovering and helping to correct it.

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REFERENCES
