EXAMPLE 1.7.3 : A quasi-equilibrium allocation need not be weakly optimal.

EXAMPLE 1.7.4 : When X_i is not convex, $x_i \ \succ x_i$ but $p \cdot x_i' = p \cdot x_i$.

EXAMPLE 1.7.5 : When $\succeq_i$ is not continuous, $x_i \ \succ x_i$ but $p \cdot x_i' = p \cdot x_i$.

EXAMPLE 1.7.6 : When $p \cdot x_i \leq \inf p \cdot X_i$, $x_i \ \succ x_i$ but $p \cdot x_i' = p \cdot x_i$.

THEOREM 1.7.16 : Let X_i be convex and $\succeq_i$ be continuous. A quasi-equilibrium (p, x) with $p \cdot x_i > \inf p \cdot X_i$ for all i is a Walrasian equilibrium.

THEOREM 1.7.17 : If (p, x) is a proper quasi-equilibrium, then for some i, $p \cdot x_i > \inf p \cdot X_i$.

THEOREM 1.7.18 : If $\sum_i X_i \cap intY \neq \emptyset$, then $Q(\mathcal{E}) \subset PQ(\mathcal{E})$.

THEOREM 1.7.19 : Let $\succeq_i$ be strictly monotone and continuous for every i. Let $\sum_i X_i \cap intY \neq \emptyset$. Then $Q(\mathcal{E}) \subset W(\mathcal{E})$.

1.7.4 Equilibrium Properties of Optima

EXAMPLE 1.7.7 : A Pareto optimal allocation need not be a Walrasian equilibrium allocation.

THEOREM 1.7.20 : If there is a consumer whose preference is locally non-satiated, every Pareto optimal allocation is a quasi-equilibrium allocation with respect to some p.

EXAMPLE 1.7.8 : A (weakly) Pareto optimal allocation can only be supported by $p = 0$.

THEOREM 1.7.21 : If $\succeq_i$ is locally nonsatiated for every i, a weakly Pareto optimal allocation is a quasi-equilibrium allocation with respect to some p.

EXAMPLE 1.7.9 : Even if $\succeq_i$ is locally nonsatiated for every i, a Pareto optimal allocation need not be a proper quasi-equilibrium.