The World According To GARP: Nonparametric Tests of Weak Separability And Its
Monte Carlo Studies
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Date Defended: May 6 2007
Date Approved: May 6 2008

Abstract
There have not been clear conclusions of the nonparametric weak separability tests over a
wide range of parameter settings and with the generated data with measurement errors.
With the Generalized Axiom of Revealed Preference (GARP) as a base of the necessary
and sufficient conditions of maximization of weak separable utility, this paper
investigates existing nonparametric weak separability tests with Monte Carlo experiments
over various range of elasticities of substitution with measurement errors. All tests did
not succeed to recognize the weak separability with the weakly separably generated data,
which mimics the volatile random behavior in the economy. To confirm our results, we
also illustrate the size of power of existing nonparametric tests.