

# Levent Kutlu

## *Curriculum Vitae*

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Rice University  
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### RESEARCH INTERESTS

Primary: Applied Econometrics  
Secondary: Industrial Organization and Social Choice Theory

Dissertation Title: Essays on Firm Efficiency  
Job Market Paper: Market Power and Efficiency: A Dynamic Approach

### EDUCATION

Rice University, Houston, TX, USA  
Ph.D. in Economics  
Expected Degree Date: May 2010  
Dissertation Title: Essays on Firm Efficiency

M.Stat. in Statistics  
Expected Degree Date: May 2010

M.A. in Economics  
Expected Degree Date: January 2010

Istanbul Bilgi University, Istanbul, Turkey  
M.Sc. in Economics, 2006

Bogazici University, Istanbul, Turkey  
B.Sc. in Mathematics, 2002

### HONORS AND FELLOWSHIPS

Rice University Florence Fulton Fellowship, Fall 2009  
Rice University Fellowship, 2005-2009  
Istanbul Bilgi University Fellowship, 2003-2006  
Bogazici University, Honors Degree, 2002

### TEACHING AND RESEARCH EXPERIENCE

#### Rice University

Teaching Assistant, Econometrics (Undergraduate), Spring 2009  
Teaching Assistant, Applied Econometrics (Undergraduate), Fall 2008  
Tutor, Econometrics Qualifying Exam, Summer 2008  
Teaching Assistant, Econometrics I (Graduate), Spring 2008  
Teaching Assistant, Introduction to Microeconomics (Undergraduate), Spring 2008  
Teaching Assistant, Econometrics II (Graduate), Fall 2007  
Tutor, Econometrics Qualifying Exam, Summer 2007  
Teaching Assistant, Econometrics I (Graduate), Spring 2007  
Teaching Assistant, Microeconomics I (Graduate), Fall 2006

## Istanbul Bilgi University

Teaching Assistant, Advanced Econometrics II (Graduate), Spring 2005  
Teaching Assistant, Stochastic Processes (Graduate), Spring 2005  
Teaching Assistant, Advanced Microeconomics II (Graduate), Spring 2005  
Teaching Assistant, Advanced Econometrics I (Graduate), Fall 2004  
Teaching Assistant, Advanced Microeconomics I (Graduate), Fall 2004  
Teaching Assistant, Mathematics and Statistics (Graduate), Fall 2004

## RESEARCH PAPERS

### Job Market Paper:

“Market Power and Efficiency: A Dynamic Approach”, *Unpublished manuscript*

**Abstract:** “The quiet life hypothesis” (QLH) by Hicks (1935) argues that, due to management's subjective cost of reaching optimal profits, firms use their market power to allow inefficient allocation of resources. Increasing competitive pressure is therefore likely to force management to work harder to reach the optimal profits. Another hypothesis that relates market power and efficiency is “the efficient structure hypothesis” (ESH) by Demsetz (1973). ESH argues that firms with superior efficiencies or technologies have lower costs and therefore higher profits. These firms are assumed to gain larger market shares which lead to higher concentration. Any market power model that does not take this relationship into account risks becoming irrelevant. Unfortunately, the literature on market power measurement largely ignores this relationship. In the context of a dynamic setting, we estimate the market power of U.S. airlines in two city-pairs by both allowing inefficiencies of the firms and not allowing inefficiencies of the firms. Using industry level cost data, we estimate the cost function parameters and time-varying efficiencies. An instrumental variables version of the square root Kalman filter is used to estimate time-varying conduct parameters.

### Publications:

“Arrovian Aggregation for Preferences over Sets”, *Mathematical Social Sciences*, 53, 255-258, 2007

**Abstract:** Let  $A$  be the set of alternatives. We consider aggregating preferences of individuals over the power set of  $A$  into a preference relation over the power set of  $A$ . We restrict our domain to the set of preferences that are conditionally expected utility consistent with equal probabilities. We show that Arrovian impossibility prevails in any superdomain of this domain.

“Superdictatorial Domains for Monotonic Social Choice Functions”, *Economics Letters*, 97, 151-154, 2007

**Abstract:** A domain  $D$  is said to be  $\mu$ -dictatorial iff there exists no onto, monotonic and non-dictatorial social choice function defined over  $D$ . A  $\mu$ -dictatorial domain  $D$  is called  $\mu$ -superdictatorial iff any superdomain of  $D$  is also  $\mu$ -dictatorial. We give a characterization of superdictatorial domains.

“Intersection of Nash Implementable Social Choice Correspondences”, *Mathematical Social Sciences*, 55, 255-257, 2008

**Abstract:** We show that there exist two Nash implementable social choice correspondences defined on an environment with strict preferences for which the intersection is not Nash implementable.

“A Dictatorial Domain for Monotone Social Choice Functions”, *Economics Letters*, 105, 14-16, 2009

**Abstract:** We give a dictatorial domain for monotone and unanimous social choice functions.

“Price Discrimination in Stackelberg Competition”, *Journal of Industrial Economics*, 57, 364-364, 2009  
(Notes and comments website: [www.essex.ac.uk/jindec/](http://www.essex.ac.uk/jindec/))

**Abstract:** We examine the effects of price discrimination in the Stackelberg competition model for the linear demand case. We show that the leader does not use any price discrimination at all. Rather, the follower does all price discrimination. The leader directs all of its first mover preemptive advantage to attract the highest value consumers who pay a uniformly high price. We observe that profits and total welfare are larger and consumer surplus is smaller than those of the standard Stackelberg competition model.

## Submitted/Working Papers:

“Battese-Coelli Estimator with Endogenous Regressors”, *Under review of Economics Letters*

**Abstract:** We provide a two stage Heckman-type framework for dealing with the endogeneity problem in the Battese-Coelli estimator for efficiency measurement.

“Efficiency Trend in the U.S. Banking Industry”, *Under review of Economics Letters*

**Abstract:** We estimate the time varying average efficiencies of U.S. banks during the period 1984-1995 with four different efficiency estimators. Using these four series of efficiency estimates, we make a multivariate Kalman filter analysis to examine the efficiency trend in U.S. banks during this period.

“Measuring Efficiency: A Kalman Filter Approach”, *Working Paper*

**Abstract:** In the Kalman filter setting, one can easily model the error term and the inefficiency term as unobserved states. This gives significant flexibility to the econometrician when modeling the inefficiency. In this study, we assume that the effects term is an AR(1) process with an AR(1) trend component. This assumption is consistent with the belief that firms learn from mistakes. We apply the Kalman filter to estimate the average efficiencies of the U.S. banks during the period 1984-1995.

“On the Greene’s Problem: A Simulation Study”, *Working Paper*

**Abstract:** We investigate the consequences of the well-known Greene’s problem via Monte Carlo experiments. For this purpose we assume that Kumbhakar’s (1997) exact model is the true model and estimate this model via six different estimators. Among these estimators we include an approximation to Kumbhakar’s model.

“State Space Models with Threshold Effects”, *Working Paper* (with Pavlos Almanidis)

**Abstract:** In many real life examples assuming the same frontier for all firms is unduly restrictive. We relax this assumption by grouping firms and letting each firm in a group share the same parameter values. When doing this we allow firms to change the group that they belong to over time. Unlike many other studies we determine the number of the groups within the model. For this purpose we use the square-root Kalman filter estimator. We treat the effects term as an unobserved state which is an AR(1) process. As an illustration of our model we estimate the efficiencies of U.S. banks.

“Voting Games of Resolute Social Choice Correspondences”, *Working paper* (with Sinan Ertemel and Remzi Sanver)

**Abstract:** Our analysis is closely related to Sertel and Sanver (2004) who characterize strong equilibrium outcomes of preference pretension games in terms of what they call “(n,q)-Condorcet winners” - a concept which generalizes the usual notion of a Condorcet winner. Although their environment covers a quite wide class of social choice rules, it is restricted to social choice functions where the outcome is a single alternative at every preference profile. However, many interesting social choice rules are social choice correspondences which allow set of alternatives as outcomes. These sets can be irresolute outcomes arising from the inevitability of ties when both voters and alternatives are equally treated but also resolute ones when the social choice problem is concerned with the determination a list of mutually compatible alternatives, such as the members of a committee. In the latter case, the social choice rule is called a resolute social choice correspondence. We ask the extent to which the characterization results of Sertel and Sanver (2004) subsume resolute social choice correspondences. We characterize strong equilibrium outcomes of voting games induced by resolute social choice correspondences in terms of sets which are (n,q)-Condorcet winners according to preferences over sets. Under very mild axioms to extend a ranking over a set to its power set, our characterizations directly generalize those of Sertel and Sanver (2004).

## PROFESSIONAL ACTIVITIES

### Presentations:

“Arrovian Aggregation for Preferences over Sets”, Rice University Student Workshop, Houston, TX, 2006

“Market Power and Efficiency: A Dynamic Approach”, Texas Econometrics Camp, New Braunfels, TX, 2009

“Market Power and Efficiency: A Dynamic Approach”, Rice University Student Workshop, Houston, TX, 2009

### Conferences/Seminars/Courses Attended:

Bosphorus Workshop on Economic Design, Bodrum, Turkey, 2005

Lectures on Time Series Econometrics by Professor Tae-Hwy Lee (University of California Riverside), Bilgi YES seminars, Istanbul, Turkey, 2005

The Eighth International Meeting of the Society for Social Choice and Welfare, Istanbul, Turkey, 2006

Texas Econometrics Camp, Kerville, TX, 2007

Texas Econometrics Camp, League City, TX, 2008

Econometric Analysis of Collusion by Patrick Bajari (University of Minnesota), ENCORE Master Class, Amsterdam, Netherlands, 2008

### Referee Works:

Empirical Economics  
Journal of Productivity Analysis

## COMPUTER SKILLS

Software: Matlab, Stata, Eviews, STAMP, EasyReg International, MS Office applications; experience with Gauss, R, OxMetrics, Mathematica, Pascal

## REFERENCES

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