BUQU GAO

Boston University
Department of Economics
270 Bay State Road
Boston MA 02215 USA
Cell: (617) 880-9432
Fax: (617) 353-4449
Email: bgao@bu.edu
Web site: http://blogs.bu.edu/bgao/

EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2018 (expected)
Dissertation Title: *Essays on Behavioral and Dynamic Contract*
Dissertation Committee: Dilip Mookherjee, Juan Ortner,
Ching-to Albert Ma, Jawwad Noor

M.A., Economics, McMaster University, Hamilton, ON, Canada 2012

B.A., Financial Engineering, Nankai University, Tianjin, China 2012

B.A., Economics *(Summa Cum Laude)*, McMaster University, Hamilton, ON, Canada 2011

FIELDS OF INTEREST

Industrial Organization, Applied Theory, Behavioral Economics, Corporate Finance

WORKING PAPERS

"Time Inconsistency and Naiveté-Based Price Discrimination," (job market paper), October 2017.
"Workplace Flexibility and Procrastination Control," (with Lingfeng Que), October 2017.
"Long-Term Capital Budgeting and Incentive Mechanism," (with Tak-Yuen Wong), September 2017.

TEACHING EXPERIENCE

Instructor, PhD Summer Math Camp, Department of Economics, Boston University, Summer 2014–2016
Teaching Fellow, Introduction to Macroeconomics (undergraduate), Department of Economics, Boston University, Spring 2014–2017
Teaching Assistant, Introduction to Mathematical Economics (PhD), Department of Economics, Boston University, Fall 2013–2016
Teaching Assistant, Economics Clinic (undergraduate), Department of Economics, McMaster University, Winter 2012

WORK EXPERIENCE

Research Assistant for Prof. William Scarth, McMaster University, Fall 2011, Winter 2012

FELLOWSHIPS AND AWARDS

Dean's Fellowship, Boston University, Fall 2012 – Spring 2017
Summer Stipend, Boston University, Summer 2013–2016
David S. Daly Academic Grant, McMaster University, Winter 2012
Excellent Student Award, Nankai University, 2009, 2011
Wu-Mart Fellowship, Nankai University, 2010

LANGUAGES

Fluent in English and Chinese

COMPUTER SKILLS

MATLAB, STATA, C++, LaTeX

CITIZENSHIP/VISA STATUS

China/F1

REFERENCES

Professor Dilip Mookherjee
Department of Economics
Boston University
Phone: (617) 353-4392
Email: dilipm@bu.edu

Professor Juan Ortner
Department of Economics
Boston University
Phone: (617) 353-6323
Email: jortner@bu.edu

Professor Ching-to Albert Ma
Department of Economics
Boston University
Phone: (617) 353-4010
Email: ma@bu.edu

Professor Jawwad Noor
Department of Economics
Boston University
Phone: (617) 353-4436
Email: jnoor@bu.edu

BUQU GAO

Time Inconsistency and Naiveté-Based Price Discrimination (Job Market Paper)

This paper studies pricing anomalies when consumers have time-inconsistent preferences and naive beliefs. Following the logic first conveyed in DellaVigna and Malmendier (2004), leisure goods (e.g. credit card) should be priced above the marginal cost and investment goods (e.g. health club) below the marginal cost when consumer naiveté is observable. However, market evidence partially contradicts this result as a substantial group of consumers pay below the marginal cost for leisure goods and above the marginal cost for investment goods. I explain this puzzle by considering a realistic assumption that the firm cannot observe consumer naiveté. For leisure goods, under certain conditions the firm optimally screens consumer naiveté by charging sophisticated consumers a below-marginal-cost price with a large upfront fee, and naive consumers an above-marginal-cost price with a small upfront fee. I also consider a dynamic extension where consumers can buy repeatedly from the firm. I show it is optimal for the firm to charge a higher price if more purchases occurred in the past, in order to provide additional commitment for consumers. Symmetric analysis follows for investment goods.

Workforce flexibility and Procrastination Control *(with Lingfeng Que)*

Workforce flexibility has become an important topic to modern business. This paper studies the optimal project management when productivity is uncertain and the worker with time-inconsistent preferences tends to delay effort spending. To deal with uncertainty, the project manager desires flexibility in workload assignment. But to deal with procrastination, the manager wants to commit certain amount of work at the early stage. We show the optimal compensation scheme varies with respect to the manager's objective--profit vs. welfare maximization--and the degree of worker's time inconsistency. Compensation based solely on final output is optimal if the worker is time-consistent. When the worker is subject to time inconsistency, the welfare-maximizing manager incentivizes early production by rewarding midterm output. In contrast, a manager who only cares about profit does not evaluate the worker at midterm given mild time inconsistency, yet imposes a minimum midterm output if time inconsistency is severe.

Long-Term Capital Budgeting and Incentive Mechanism *(with Tak-Yuen Wong)*

We characterize the optimal dynamic mechanism for capital budgeting and managerial compensation. The division manager privately observes the project productivity at each point in time as well as an initial signal that governs the productivity evolution. We show that the optimal allocation can be implemented by a simple mechanism with a one-time report of the initial signal. In the simple mechanism, the headquarters delegates the investment decisions to the manager and finances the capital expenditure by tying the budget to a linear compensation scheme. The project growth and the power of incentives depend on how the initial signal affects the future types.

September 2017