# TILSA ORÉ-MÓNAGO

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#### STONY BROOK UNIVERSITY

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#### **Education**

Ph.D. in Economics, Stony Brook University, USA, 2012-2018.

M.A. in Applied Economics, Oklahoma University, USA, 2010-2012.

M.A. in International Trade and Economic Cooperation, Kyung Hee University, South Korea, 2004-2005.

B.A. in Economics, Pontificia Universidad Catolica del Peru-PUCP, Peru, 1998-2003.

#### **Research Fields**

Industrial Organization, Applied Microeconomics, and Game Theory.

#### **Working Papers**

- "Competition with endogenous and exogenous switching costs", 2017
- "The effect of switching costs on prices: an application to the Peruvian Mobile Phone Market," NET Institute Working Paper No. 17-12, 2017.
- o "Milking the milkers: a study on buyer power in the dairy market of Peru" (with Jose Tavera)
- "Fostering competition in the Philippines: the challenge of restrictive regulations," (with Graciela Miralles, Roberto Galang, Sara Nyman, and Leandro Zipitria), The World Bank Group, Working Paper 117356, Washington D.C., 2017.

# **Work In Progress**

- "Does reducing switching costs increase social welfare? An application to the Peruvian mobile phone market".
- "Fostering competition in Egypt," (with Graciela Miralles, Roberto Galang, Sara Nyman, and Leandro Zipitria), The World Bank Group.

# **Local Publications**

- "The dynamics of Peruvians who do not study or work: who they are, how are they doing and how they have changed," *Apuntes*, Vol. 44 Number 80 Research Center –Universidad del Pacifico, 2017. (with Ramiro Malaga and Jose Tavera)
- "Youth who neither work nor study: The Peruvian case," Revista Economia, Vol. 37 Number 74, Department
  of Economics –Pontificia Universidad Catolica del Peru, 2014. (with Ramiro Malaga and Jose Tavera) [in
  Spanish].

- "Assessing competition policy on economic development," Revista Economia, Vol. 36 Number 71,
   Department of Economics-Pontificia Universidad Catolica del Peru, 2013.
- o "Copyright Collecting Societies: the Peruvian case," *Journal of Competition and the Intellectual Property*, Year 3 Number 5, Spring 2007, INDECOPI, Lima, 2007. (with Jose Tavera) [in Spanish].
- "A study on the determinants of port efficiency: the case of Busan port in Korea," Master's thesis, Kyung Hee University, Suwon, South Korea, 2005.

#### **Book chapters**

- "Lessons from the introduction and implementation of competition policy in economies at different stages
  of development: the case of APEC economies," In: APEC Economic Policy Report 2008. Asia Pacific
  Economic Cooperation –APEC, APEC Economic Committee, Chapter 2, study developed by INDECOPI for
  the APEC Economic Report 2008. (with Jose Tavera and Fernando Caceres)
- "Study on the competition conditions in financial industry in Peru," In: Competition conditions in selected industries: Health services industry, Fuel industry and Financial industry, INDECOPI –Department of Economic Studies. Program on Competition and Consumer Protection Policies for Latin America of the United Nation Conference on Trade and Development (UNCTAD-COMPAL), 1st ed., June 2007, pp.169–249, Lima. (with Jose Tavera, Juan de La Cruz, Melina Caldas and Milton Chamorro) [in Spanish]

# **Work Experience**

- o The World Bank Group, USA
  - Trade & Competitiveness Global Practice Division
    - Short Term Consultant (Feb.2017–present)
- National Institute of Competition Defense and Intellectual Property Protection –INDECOPI, Peru Department of Economic Studies
  - Senior Economist -Head of the Economic Research Unit (Sep. 2007-Jul. 2010)
  - Economic Analyst Economic Research Unit (May 2006-Sep. 2007)
- o Ministry of Transportation and Communications -MTC, Peru
  - Vice Ministry of Communications -Secretary of Communications
    - Economic Adviser (Sep. 2005-Apr. 2006)
- o Institute for Peruvian Studies -IEP, Peru
  - **Economic Research Division** 
    - Research Assistant (Apr. 2005-Sep. 2005)

# **Teaching Experience**

- o Instructor (lecturer) at Stony Brook University (2014 2018)
  - Introduction to Economics (undergraduate [traditional and online format])
  - Public Finance (undergraduate)
  - Game Theory (undergraduate [online])
- o Instructor (lecturer) at Pontificia Universidad Catolica del Peru (2008)
  - Microeconomics I (undergraduate)
- o Teaching Assistant at Stony Brook University (2012 2016, 2018)
  - Intermediate Microeconomics (undergraduate)
  - Intermediate Macroeconomics (undergraduate)

- Game Theory (undergraduate)
- Mathematical Statistics (undergraduate)
- Introduction to Economics (undergraduate Head TA of largest class[500 students])
- Teaching Assistant at Pontificia Universidad Catolica del Peru (PUCP) and Universidad del Pacifico (UP) (2003, 2009)
  - Macroeconomics II at PUCP (undergraduate)
  - Industrial Organization at UP (undergraduate)

# **Professional Training**

- Fordham Competition Law Institute (FCLI) –Fordham Law School
   Course for Agency Economists –Summer Program New York, 2009.
- Telecommunications Regulatory Agency of Peru (OSIPTEL)
   Specialization Course in Economic Regulation of Telecommunication Sector, Lima, Peru, 2006.

#### **Seminars and Conferences**

- Federal Communications Commission Economic Seminars –Washington D.C., May 2018
- 16th Annual International Industrial Organization Conference –Indianapolis, Apr. 2018
- o 2018 ASSA Annual Meeting Philadelphia (Poster Session), Jan. 2018
- 5th Summer School of Econometric Society "Frontiers of Economic Theory" (students' presentations session) – Hanyang University, Seoul, South Korea, Aug. 2017
- o 28th International Conference on Game Theory -SBU, Stony Brook, New York, Jul. 2017
- 15th Annual International Industrial Organization Conference, (Rising Stars session)—Boston, Apr. 2017
- o 27th International Conference on Game Theory -SBU, Stony Brook, New York, Jul. 2016
- o Microeconomics Workshop (Brown Bag series) -UW, Seattle, Nov. 2015 and Jun. 2016
- o 5to Conversatorio Mensual INDECOPI -Lima, Peru, Jan. 2014

#### Fellowships, Scholarships, and Awards

- The William Dawes Outstanding Teaching Award by a Graduate instructor, 2018
- o NET Institute Summer Research Grant, 2017.
- Summer Online Teaching Initiative Grant SBU Office of the Provost, 2016.
- International Labor Organization (ILO) Research Grant, 2014.
- o Stony Brook University Graduate Fellowship, 2012-present.
- o Fulbright Fellowship, 2010-2012.
- o BARSA Fellowship (De Sa Inter-American Foundation), 2010–2012.
- o Korea International Cooperation Agency (KOICA) Fellowship, 2003-2005.
- o Electroperu S.A. Scholarship, 2000-2003.

#### Additional skills and activities

- o Computer Skills: Stata, Matlab, R, Maple, LaTex, HTML.
- Languages: Spanish (Native), English (Fluent), Korean (Basic)
- Referee for the following journals: Revista Economia (PUCP, Peru), Revista Opinion Juridica (Universidad de Medellin, Colombia)
- Senator Graduate Student Organization (GSO); former graduate mobilizer Graduate Student Employees
   Union (GSEU) at SBU.

# **References**

Yair Tauman (Main Advisor)

Leading Professor and Director

of the Center for Game Theory

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# Sandro Brusco (Co-Advisor)

Professor

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#### **Gregory Duncan** (Committee Member)

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Amazon's Chief Economist and Statistician

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# Competition with endogenous and exogenous switching costs

(Job Market Paper)

This paper presents a general theoretical framework for a dynamic competition game in the presence of two types of switching costs: endogenous, which are set by providers, and exogenous that are specific to consumers. In a two-period game, the two providers compete in prices and switching fees, and can price discriminate between old (loyal) and new (switchers) consumers.

I show that there are symmetric subgame perfect equilibria in pure strategies, where providers split the market equally in the first period and one third of the population switch in the second period. Equilibrium prices and switching fees are not uniquely determined, but providers' profits are. The presence of endogenous switching costs (the ability of providers to set switching fee) only impact intertemporal payoffs with countervailing effects, leaving multi-period payoffs unaffected, whereas exogenous switching costs affect consumer and social welfare. These results suggest that regulatory policies, in the telecommunications industry for example, should reduce exogenous switching costs (such as, number portability, standardization or compatibility) rather than eliminate or regulate switching fees.

# The effect of switching costs on prices: an application to the Peruvian Mobile Phone Market

Based on a game theoretical model I previously developed, I present some evidence of the effect of the unlocked-handset policy recently implemented in Peru based on market analysis and reduced form empirical methods using consumer panel data. Average prices declined since mid 2014, and the switching rate rocketed since the implementation of the policy in January 2015. To retain consumers and attract rival's consumers, companies responded also with very low on-net prices through their 'private network' with unlimited minutes, which may have increased the network effects in the market.

From my estimation, I found a significant negative effect of switching costs on demand for voice traffic (which suggest a positive effect of the unlocked-handset policy on demand) and positive network effects on the demand. The policy, by reducing consumer switching costs, would have generated an increase of 39.7% in the minutes consumed by switchers. Moreover, any change of consumer status (company or consumption plan) is associated with 31.2% increase in minutes consumed. I also found that, with lower significance level, the policy would have induced a reduction of per-minute prices by 9.6%.

# Milking the milkers: a study on buyer power in the dairy market of Peru

(with Jose Tavera)

The literature on imperfect competition suggests two conditions facilitating the exercise of buyer market power: the existence of an inelastic and upward-sloping supply, and the existence of high concentration in purchases. In this study, we use monthly aggregate data (from 1999-2014) of the raw milk market in Peru. We test whether these conditions hold, by analyzing the market and estimating the supply elasticity. The results suggest the existence of buyer power in the raw milk market since an inelastic raw milk supply and a highly concentrated market is verified. Our assessment is reinforced with the role played by the existing market power of the firms at the downstream segment and the existence of entry barriers to that market segment.

# Young people not in education, employment or training (NEET) in Peru: evolution and perspectives (with Ramiro Malaga and Jose Tavera)

We analyze the dynamics of the Peruvian NEET population during the last two decades, using data from the National Census and the National Household Survey. We identify and characterize the population of NEET, classifying it by intensity. We find that the NEET population is essentially urban; with large participation of women and individuals that have just finished high school. Additionally, we find that a large fraction of women in the NEET population is willing to work. Finally, we observe that the fraction of NEET in the young population is declining over time.