



## Introduction

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The greatest mathematician of the 18th century, Joseph Louis Lagrange, set the highest—perhaps improbable—standard of teaching when he declared that one would not have truly understood his own work until he has made it so clear that he can go out and explain it effectively to the first man he meets on the street. This is of course an extremely high bar to hurdle for scholars then and now. Yet the man honored in this volume is one of the few with a pedagogical gift that reminds us of Lagrange's standard.

Revered by his students and colleagues, Professor Rolando Altarejos Danao has the rare ability of making difficult things look easy. In class, he goes about explaining a vexed theorem by patiently laying down the fundamental principles, before unraveling a seemingly incomprehensible mystery. An average student may be overwhelmed by details and initially perplexed by the abstraction of his approach. But after he has welded the principles to the theorem so that everything falls into its proper place, he succeeds in making the elegance and logical truth of the theorem evident, and the rigor rewarding.

For nearly four decades, graduate students of the University of the Philippines School of Economics have been treated to an intellectually gratifying discovery in Professor Danao's class. Most of the contributors to this volume are privileged to have been taught by him. His course is neither simple nor complicated, but faithful to the discipline. He lectures with vitality, lightness, and relaxed competence. He teaches students to distinguish axioms (self-evident, necessary truth) from postulates (arbitrary assumption) and to insist on mathematical proofs before asserting or accepting a proposition even if it seems intuitively convincing. Despite being pushed to work hard, students appreciate the learning experience. His pedagogy is reflected in the fluidity and scholarly style of his writing. It is not surprising that the three volumes of textbooks in mathematical economics and econometrics that he has completed to date have become indispensable references for students and economic professionals alike.

Outside of the classroom, Professor Danao's demeanor is as inspiring as his scholarship. Having earned the deference of students and colleagues, it is

easy for academics to be dogmatic in their assertions concerning things that they know little or nothing about. Professor Danao, however, remains modest and sincere in reserving his opinion when pressed on matters that he feels he has not sufficiently delved into. Just as he avoids slapdash assertions, he is consistently thorough and meticulous in his work. And so when he stamps his approval on a student's paper, his peers consider it like a quality seal.

Work is a vice for this man who ably juggled administrative and academic work during most years of his regular academic appointment. To this day, as Professor Emeritus, his workday is not a bit shorter than when he began teaching. His focus and discipline have not waned, so is his passion for learning and discovery. He has combined academic research and public service, having built economic models on income accounting, health, and population management that remain useful aids to policy-makers. In 2006, he was appointed to the Market Surveillance Committee of the wholesale electricity market, which started his current research foray into the dynamics of the electricity market.

This volume celebrates Professor Danao's invaluable contribution to economics graduate education in the Philippines. It is a fitting tribute by students who have learned to embrace abstraction and generality—the very essence of mathematical thought—because of his inspiration and influence. The contributions span the research and pedagogical interests of the honoree—applied econometrics and statistics, mathematical economics, and econometric theory; most relate to economic and social issues particularly relevant to the Philippines.

Ma. Joy V. Abrenica's contribution examines a case of suspected collusion among participants in the wholesale electricity market, which occurred during the period when Professor Danao was a member of the market governance body. Abrenica finds evidence of strategic bidding and capacity withholding that sustains the body's conclusion of anti-competitive conduct by the participants.

The two macroeconomic papers are by Carlos C. Bautista, Roberto S. Mariano and Bayani Victor Bawagan on the structure and applications of the National Economic and Development Authority (NEDA) quarterly macroeconomic model, and by Cristela Goce-Dakila and Francisco Dakila Jr. on the spatial impact of Overseas Filipino Workers (OFW) remittances in the country. Both papers build on general equilibrium theory; the first employs econometric methods, while the latter uses computer general equilibrium methods to simulate the effects of policy stimulus or exogenous shock on the economy. In particular, Bautista, Mariano and Bawagan show that stagflation could be caused by increases in minimum wage, import tariff and crude oil prices; growth and inflation could follow a rise in LIBOR90, capital outlays,

private construction, government consumption, foreign exchange rate or reserve money; and recession could arise due to tight monetary policy. Goce-Dakila and Dakila Jr. considered only one type of shock, but simulated its effects on various regional economies and income groups. They find that a five-percent reduction in OFW remittances would have its gravest effect on the middle-income and low-income households in Northern Luzon, and its least adverse effect on households in Mindanao.

The econometric papers pertain to recent debates on monetary policy, financial risk measurement and international trade. Josef Yap tests the consistency of the monetary authority's intervention in the foreign exchange market with its inflation-targeting approach to monetary policy. He presents evidence of interventions in the foreign exchange market, especially after the onset of the 1997 Asian financial crisis, that are contrary to official claims. Another paper that bears on monetary policy is by Jose Oliver Suaiso and Dennis Mapa on the relative performance of various financial risks measures. Among the tested methods, the dynamic version of the extreme value theory—the value-at-risk model—outperforms its static version in terms of accuracy and efficiency in measuring market risk. The implication is that banks, by using this method, can better estimate the minimum capital to guard them against insolvency in compliance with international and local banking regulations. Robert Teh, on the other hand, seeks to rectify previous work linking the use of anti-dumping action with real exchange rate appreciation. By employing a larger data set and using theory-consistent empirical specification, he also refutes notions that the benefits of trade liberalization are being offset by increasing anti-dumping initiations. Instead, he traces a country's proclivity to resort to anti-dumping action to slow domestic economic performance and weak domestic currency.

Three papers are in applied microeconometrics. The first provides support to additional public investments in education to alleviate poverty, while the other two suggest ways by which population and health policies could influence schooling decisions at the household level. Using Philippine provincial-level data from 1998 to 2006, Jonna Estudillo, Charity Gay Ramos and Keiji Otsuka trace the impact of distance to city-based markets on the labor shares of farm and non-farm sectors in rural economies. Consistent with theory, they find that capital investments—in the form of electricity, transportation and communication infrastructures, and education of the labor force—are potent stimuli in transforming rural economies. Related to the education of the labor force, two other contributions explore the determinants of children schooling in Philippine households. Both papers use the Annual Poverty Indicator Survey (APIS) and address possible endogeneity in their regression estimation. Using

APIS 2002 and the balanced sex-mix of children as instrument, Aniceto Orbeta Jr. finds that the number of children has a negative impact on the proportion of school-age children attending school. Using pooled sub-sample from 2004 and 2007 APIS, Joseph Capuno, Stella Quimbo, Carlos Antonio Tan, Jr. and Aleli Kraft report that the probability of school attendance among children (5-22 years old) falls as the share of health spending in total family expenditures increases, but could also increase with insurance coverage with PhilHealth. In sum, population management and health insurance policies could have desired effects on education status.

Finally, two papers are methodological contributions. Michael Alba and Roehlano Briones present a method for constructing a matrix of input and output price elasticities from incomplete data. By exploiting the theoretical properties of cost and production functions, the authors demonstrate their approach at estimating some off-diagonal entries in a production function elasticity matrix with only limited number of filled-up cells. Lawrence Dacuycuy employs the Monte Carlo simulation method to evaluate the power of the Fan-Li test in detecting omitted variable bias in a partially linear model with finite samples. In this case, he shows that the test is satisfactory when the omitted variable appears only in the linear or nonlinear component of the model, but not when it appears in both.

Putting together a volume as a tribute to one of the finest scholars of his generation is itself an honor. The contributors are grateful to the journal's Editorial Board for providing space and opportunity to this fete.