HSU, Ke-Cheng (Clio)

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Professional Summary

Native Taiwanese speaker who grew up in Taiwan and came to Hong Kong on a full university scholarship; graduated first in the undergraduate class at HKUST (Academic Achievement Medal, top 1%). Ph.D. candidate in Economics at HKUST, strong at analyzing returns and inventory on retail and e-commerce data: one paper designs return policy, another studies how firms should stock inventory under demand uncertainty, accounting for stockouts and leftovers. Works with large proprietary datasets, builds quantitative models, and turns results into clear figures and written summaries under deadlines. Professionally fluent in English; Hong Kong permanent resident. Seeking Graduate Trainee – Buyer (Taiwan / English) at GreenPrice.

Education

The Hong Kong University of Science and Technology, Hong Kong

Doctor of Philosophy in Economics — Expected Graduation: June 2027

Research interests: Empirical industrial organization and digital economics.

Master of Philosophy in Economics — 2020–2022

CGA: 4.1/4.3.

Bachelor of Science in Mathematics and Economics, Minor in Actuarial Mathematics — 2015–2019

CGA: 3.9/4.3; graduated first in class (Academic Achievement Medal, top 1%).

Awards: Full University Scholarship to study in Hong Kong (730K HKD); Dean's List (2016–2019); Postgraduate studentship (1.5M HKD); Redbird scholarship (40K HKD).

Experience

Research Assistant, National Taiwan University — 2020

- Modeled crisis intervention as regulator–creditor negotiation; derived and simulated equilibrium predictions to support policy design.

Teaching Assistant & Lecturer, Department of Economics, HKUST — 2020–present

- Lecturer for MSc Math Camp (4.53/5); TA for PhD and undergraduate economics (avg 4.72/5); clear explanation and stakeholder-facing communication under deadlines.

Projects

Inventory and Pricing under Resale Price Maintenance (RPM) *(w/ K. Kawaguchi, HKUST; K. Kawai, U. Tokyo)*

- Built a dynamic oligopoly model of pricing and inventory under demand uncertainty and RPM, with equilibrium stockouts and unsold returns (35–40% of Japanese books printed are discarded); constructed title-by-market-by-month panels from monthly bookstore POS data (deliveries, sales, returns; tens of billions of records across 1,000+ stores), linked via standardized ISBNs and merged with local demographics and detailed title-level information scraped from Amazon in Python.
- Estimated demand and supply with instrumental variables (2SLS) and Hausman-style price instruments; validated the estimator with Monte Carlo on simulated equilibria; selected controls with LASSO and panel fixed effects; implemented iterative equilibrium simulation in C++.
- Revealed that the classical static model overestimates marginal cost by ∼20% when ignoring dynamic demand uncertainty and inventory decisions; uncovered stockout-driven intertitle and intertemporal substitution (not interregional) through weekly descriptive statistics, regressions, and figures.

Return Policy Design in E-Commerce *(Job Market Paper)*

- Built and estimated a structural model of purchase, return-shipping-insurance take-up, and return decisions under monopoly pricing, using within-retailer switches between automatic provision and selective adoption of return-shipping insurance on Taobao (2017–2023; ∼62M RMB revenue; six apparel categories; ∼20–30% return rates); scraped and OCR-digitized product attributes in Python.
- Developed a reproducible, version-controlled estimation pipeline on AWS and HPC/SLURM (Python, R, C++); cleaned and linked orders, prices, insurance, and returns; recovered category-specific demand, consumer fit uncertainty, and return responses via GMM; accelerated Monte Carlo and optimization in C++; validated policy rankings (seller profit, consumer surplus, social welfare) with bootstrap inference.
- Uncovered a purchase–return efficiency trade-off: a stricter return policy curbs inefficient ex-post returns but raises prices and can exclude ex-ante efficient purchases; demonstrated that automatic provision expands valuable purchases in high-margin categories while selective adoption outperforms it by ∼15–30 pp of first-best welfare in thinner-margin categories, and that a partial return-penalty discount (discounted price + ∼10–15% restocking fee) attains ∼75–78% of first-best welfare outside dresses.

Skills

Languages: Native Taiwanese speaker; Mandarin (Native); English (Fluent); Cantonese (Basic).

Technical: Python, R, Stata, C++, Excel, LaTeX, AWS, HPC/SLURM; AI-assisted workflow for cleaning, coding, and reporting; demand and market-power analysis, competitive / pricing and inventory analysis, management reporting; MLE, GMM, bootstrap.

Right to work: Hong Kong permanent resident.

References: Kei Kawai (UTokyo; Compass Lexecon), Kohei Kawaguchi (HKUST; UTokyo Econ Consulting), Pak Hung Au (HKUST).