Ellen Huiru Chen, Ph.D., M.B.A.

Business & Financial Analyst | Economist

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USC **Ph.D and M.B.A.** with record of outstanding academic research on corporate economy, financial structure, principal component analysis on financial factors, and discriminate analysis on the ownership management. Solid academic background in finance, decision making systems and empirical experience in equity markets.

PUBLICATIONS

2012, Khurshid M. Kiani & Ellen Huiru Chen & Zagros Madjd-Sadjadi, "**Financial factors and firm growth: evidence from financial data on Taiwanese firms**," **Quantitative Finance**, Taylor and Francis Journals, vol. 12(8), January 2012, pages 1299-1314.

2007, Ellen Huiru Chen & Khurshid M. Kiani & Zagros Madjd-Sadjadi, "**Impact of control type on firm growth in Taiwan**," **International Journal of Applied Economics**, vol. 4(1), March 2007, pages 76-84.

PROFESSIONAL EXPERIENCE

Southern California Edison, Rosemead, CA **2006 to 2017**

Financial Analyst (Risk Analytics) 2008 to 2017

- Fundamental market reporting such as 12 month forward price strips for gas, power, and heat rate in the California market.
- Evaluation of Short-Term **Price Forecasting** (ARIMA)modeling such as reviewing the hourly forecast of power prices in SP15 on peak and SP15 off peak in the day-ahead market and hourly forecast of power price in Ancillary Services in the day-ahead market.
- Reviewed the methodology for Short-Term **Demand Forecasting** in terms of SCE system load and its after-fact load forecast performance reviews.
- Model validation for Risk Metrics to measure procurement cost. SCE internally development this tool ERAPT/EPP to report monthly its portfolio risk to CPUC.
- Validate Congestion Revenue Rights (CRR) Model to ensure correct projection of CRR allocation and auction.
- Developing methodology and data analysis to back test “To-expiration VaR” model.
- Participate in the analysis of hedging activity in all levels. Responsible for model validations related to price & load forecasting and risk metrics.
- Stress Case Collateral Review and Documentation for netting vs non-netting
- Develop Credit Risk Cost Adder (CRCA) for RFO valuation to capture the additional credit risk when counterparty does not agree to post collateral up to SCE’s desired limit.
- Collateral calculations based on Power Purchase Agreement (PPA) contract term for both Renewable and conventional contracts.
- Resource Adequacy (RA) price curve Validation for RA RFO 2015. To develop the RA forward curve without forward premium when market quotes are not available.
- Renewable Auction Mechanism RFO (RAM6) selection Validation on offers for contracts between RAM (Renewable Auction Mechanism) & GSTR (Green Tariff Shared Renewables)
- Portfolio planning in improving its internal process for QC control in RA forecast position.
- ProSym output validations on VOM charges.

Financial Analyst (Regulatory Finance) 2006

- 2008 SCE **Cost of Capital** Application before **CPUC**, including Risk Premium method, CAPM and Fama-French modeling

- 2009 SCE Productivity Analysis in **General Rate Case** for O&M Labor and non-labor on Production, Transmission, Distribution, Customer Accounts, Purchased Power, Fuel.
- 2008 **Embedded Cost** of long-term debt and forecast of long-term preferred stock
- **Ratemaking Capitalization Calculation** on a monthly basis: for rate making purpose, the financial numbers of long-term debt, total common equity and preferred stock from consolidated balance sheet should be adjusted to confirm with the financing of rate-base activity.
- Responsible for **financial modeling and statistical analysis** related to regulatory issues and for internal corporate purposes, with particular focus on cost of capitals issues.

EDUCATION

Ph.D., Political Economy and Public Policy, Economic Department
University of Southern California, Los Angeles, CA

- Dissertation: The Corporate Economy and the Growth of Corporations in Taiwan
- Courses: Experimental Economics; Econometric Methods; Seminar in Advanced Research Methods; Economic Theories in the 20^{th} Century; Comparative Economic System; Policy Planning and Economic Development Programming
- Received Top Qualifying Exam Score for Ph.D. Candidate
- Member: American Economic Association, Western Economic Association.

M.B.A., **Concentration in Finance & Decision Making Systems**
University of Southern California, Los Angeles, CA

- Focus on Statistics and Forecasting.
- Courses: Investment and Portfolio Management; Financial Derivatives; Financial Market and Institution; Bond Market and Strategy; International Financial Management; Statistics and Forecasting; Corporate Finance and Financial Management
- Multiple Regression Models and Time Series Models
- Dean's List

USC Viterbi Data Analytics Boot Camp (in progress)
University of Southern California, Los Angeles, CA

Languages &	Fluent in **English, Mandarin, Taiwanese**.
Computer Skills	SAS, SPSS, R, Minitab Statistics, MS Office Suite (Excel, PowerPoint, Word)

Academic Projects

- Relational Database Design
- Exchange Rate Time Series Analysis
- Product Positioning for Pacific Bell

Relevant Training

- **California ISO, Market Transaction & Settlements Validation** Two-Day Seminar, Sacramento, CA, 2010
- **Developing Bidding Strategies for Genco Assets** in CAISO MRTU Market, EUCI Seminar, San Diego, CA, 2009
- Data Analysis Circuit, General Assembly, Santa Monica, Sep-Nov 2017
- Data Analytics, General Assembly, Santa Monica, Oct 2017-Jan 2018
- Python Bootcamp, General Assembly, Santa Monica, Sep 2017
- Pricing Strategy, General Assembly, Santa Monica, Sep 2017
- SQL Bootcamp, General Assembly, Santa Monica, Sep 2017