Head Office: 3 Raffles Place, #07-01 Bharat Building, Singapore 048617 Regional Offices: Malaysia, Indonesia, Thailand, Philippines, Vietnam, Hong Kong

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# Macroeconometrics & Financial Modeling using EViews

3 - day Professional Development Workshop

#### Contents

East Asia Training & Consultancy Pte Ltd invites you to attend a three-day professional workshop, covering the use of econometrics with the latest EViews6, the well-known econometrics software package developed by Quantitative Micro Software (USA).

#### About EViews

"EViews provides sophisticated data analysis, regression, and forecasting tools on Windows-based computers. With EViews you can quickly develop a statistical relation from your data and then use the relation to forecast future values of the data. Areas where EViews can be useful include: scientific data analysis and evaluation, financial analysis, macroeconomic forecasting, simulation, sales forecasting, and cost analysis." (EViews User's Guide, p.5)

# **Course Programme**

Do your statistical and econometric skills need a tune-up?

Are you looking for simple user-friendly software to implement the more sophisticated techniques you have studied or read about?

This 3 - day workshop provides a selective review of basic econometric concepts, their application in economics and finance and their implementation using the EViews software program. Topics cover include ARMA modelling and forecasting, vector autoregressive model and impulse response analysis, cointegration and error-correction model estimation, and GARCH modelling of financial volatility. Case studies are drawn from actual up-to-date research in economics and finance. The approach is 'hands on' and interactive, with the

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instructor discussing relevant concepts and then illustrating in EViews with participants replicating each step at their own PCs.

#### Who Should Attend

The course is aimed at Economic Researchers, Model Builders; Financial Modellers, Arbitrage Traders; Quantitative Investment Analysts, Traffic Modellers, Energy Load Forecasters, University Instructors, Statisticians, Budget Analysts, Financial Analysts, Market Researchers, Currency & Interest Rates Strategists and Policy Planners & Researchers.

#### Fee

The fee includes extensive course materials and databases, morning and afternoon tea/coffee breaks with refreshments, luncheons and opportunities to network with researchers and forecasters from different industries throughout Asia. Further instructions will be sent to confirmed participants.

This is a "hands-on" workshop. Delegates are required to bring your laptops with EViews installed in them.

# Registration

The number of participants is restricted. Please register early to guarantee your place. Please email your completed registration form to us at <a href="mailto:training@eastasiatc.com.sg">training@eastasiatc.com.sg</a> to reserve your seat. If you need assistance in locating hotel accommodation in the area, please contact us at the same email address.

# MAS Financial Sector Development Fund (FSDF)

Participants may be eligible for Financial Sector Development Fund (FSDF) support on a case by case basis. Interested applicants should submit their applications to the FSDF Secretariat directly. For enquiries, please contact the FSDF secretariat at 65- 6229 9396 or via email at <a href="mailto:fsdf@mas.gov.sg">fsdf@mas.gov.sg</a>.

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# **Course Outline**

(subject to minor changes)

# DAY 1 (Full Day)

# Applied Regression Analysis

- Topics: Linear regression, Dynamics, Dummy variables, Causality analysis, VARs
- Description: The multiple linear regression model is applied to a range of data sets based on the Singapore economy. Both dynamics and structural break analysis are also discussed. Multiple equation models are also discussed in the context of causality testing and Vector Autoregressions (VARs).
- Applications: Properties of Singapore's key macroeconomic variables, interrelationships amongst financial markets in Singapore, identifying Singapore's business cycle. Modelling savings in Singapore, thresholds in Singapore's Phillips curve.

#### DAY 2 (Full Day)

#### Nonstationary Models

- Topics: Unit roots, Cointegration, Vector error correction modelling (VECM).
- Description: Models designed to test and capture the properties of nonstationary time series are investigated. Both unit root and cointegration testing are discussed as well as dynamical models based on error correction representations.
- Applications: The long-run demand for money in Singapore, constructing a small macroeconometric model of the Singapore economy, endogenous growth theory.

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# DAY 3 (Full Day)

#### Model Evaluation

- **Topics:** Forecasting, Simulation, Impulse response functions.
- Description: The properties of the various econometric models taught in the course are evaluated through a number of ex post and ex ante forecasting experiments. Counterfactual experiments are also conducted using simulation analysis, Value-at-Risk analysis and impulse responses.
- **Applications:** Forecasting key macroeconomic variables in Singapore, modelling the collapse of investment in Singapore.

#### **General Notes**

- All sessions will have 45 minutes of discussion on the topic and Eviews functions and 45 minutes of hands-on tutorial with data sets.
- The data sets discussed in the examples will be provided. However, participants are encouraged to bring their own data sets.
- All case studies and examples will use real data sets, which were taken from financial and econometric applications.