

**OPENING SPEECH**  
**BY MR. HOOKYU RHU**  
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**AT SEACEN FOUNDATIONAL COURSE ON**  
**ECONOMETRIC MODELING AND FORECASTING**  
*Cambodia, 11 – 17 January 2015*

Her Excellency Neav Chanthana, Deputy Governor of the National Bank of Cambodia,

Mr. Thai Saphear, Human Resource Director, Human Resource Department  
of the National Bank of Cambodia,

Distinguished Guests and Resource Speakers,  
Ladies and Gentlemen,

Good morning to all of you and welcome to the SEACEN Foundational Course on Econometric Modeling and Forecasting.

First and foremost, on behalf of The SEACEN Centre, I would like to express my sincere appreciation to the National Bank of Cambodia for hosting this foundational SEACEN Course in this beautiful city of Siem Reap. Besides that, Her Excellency Deputy Governor Neav Chanthana, thank you so much for making time to grace the Opening Ceremony to deliver your Welcome Remarks. We are also incredibly grateful to the Secretariat team of NBC for their efforts put in to ensure the success of this Course and for their warm hospitality.

We are very pleased that you chose to participate in this course. We hope that the discussions and interventions during this week will provide valuable and usable insights as you participate in the sharing and group work on models and techniques widely used in analysis and forecasting inflation.

On this opening day of the SEACEN Foundational Course on Econometric Modeling and Forecasting, I would like to share with you some of my thoughts on econometric modeling and forecasting.

It is well known that since Keynes published his General Theory on Employment, Interest and Money in 1936, macroeconomic theory has tremendously developed its sophisticated framework through decades-long and extensive debates on the way in which the typical market economy operates. However, it is less well known that Tinbergen also did a great service to the study of macroeconomics by publishing his volumes on the statistical testing and measurement of business cycle theories in 1939.<sup>1</sup> Since then, there has been huge development in econometrics and macroeconomic statistics, which also facilitated application of econometric tools in macroeconomic modeling and forecasting.

Econometric modeling and forecasting has been a dynamic and powerful tool in policymakers' arsenal of instruments. Such models are keys to develop rigorous, coherent and robust frameworks for economic analysis and policy making in central banks. This SEACEN course, created last year, has already proven very successful in supporting SEACEN member central bankers tasked with econometric modeling and forecasting to gain the updated theoretical background and practical skills for fulfilling their tasks.

Econometric models which are now widely used for analytic and policy purposes generally consist of a set of mathematical equations that describe a particularly chosen theory of economic behavior or a structural component of an economic system. If I give you a better picture of actual econometric models used in many central banks around the world, a number of big size econometric models have already been well-established for their policy purposes. For example, the FRB/US model used at the US Federal Reserve contains 60 stochastic equations, 320 identities, and 125 exogenous variables.<sup>2</sup> Central banks have also become increasingly interested in the usefulness of dynamic stochastic general equilibrium (DSGE) models for policy analysis and forecasting. Central banks that have already developed DGSE models include the Bank of Canada (ToTEM), Bank of England (BEQM), Central Bank of Chile (MAS), Central Reserve Bank

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<sup>1</sup> J. Tinbergen (1939), Statistical Testing of Business-cycle Theories, Vol. I, "A Method and Its Application to Investment Activity," Vol. II, "Business Cycles in the United States of America, 1919-1932", League of Nations Economic Intelligence Service, Geneva.

<sup>2</sup> See Flint Brayton, Thomas Laubach, and David Reifschneider, "The FRB/US Model: A Tool for Macroeconomic Policy Analysis", FEDS Notes, April 2014. <http://www.federalreserve.gov/econresdata/notes/feds-notes/2014/a-tool-for-macroeconomic-policy-analysis.html>

of Peru (MEGA-D), European Central Bank (NAWM), Norges Bank (NEMO), Sveriges Riksbank (RAMSES), the US Fed (SIGMA), and the Bank of Korea (BOK DPM ).

Nevertheless, I believe that central bankers tasked with economic research job should have solid and robust understanding on emerging challenges in fulfilling this critical task in practice and learn how to handle potential pitfalls which may arise in applying econometric models and techniques to derive specific policy decisions. Only with these fundamentals embodied in their intellectual mindset, they can better contribute to conducting right policy targeted at right sectors over a right time horizon.

The participants in this SEACEN course will learn fundamental econometric tools for modeling and forecasting together with their theoretical background knowledge. Our participants will also have some hands-on experience to use E-views programs to understand estimation and forecasting methodology and share group-work exercise to discuss on how to ensure theoretically, empirically and judgmentally the validity of the result of their group exercise.

We are pleased to have onboard with us a team of experienced resource speakers from various institutions to share their wealth of knowledge with you. They are namely, in the order of appearance:

1. Dr. Hans Genberg, Adviser, Macroeconomic and Monetary Policy Management, The SEACEN Centre
2. Dr. Vincent Lim Choon Seng, Senior Economist, Research and Learning Contents, The SEACEN Centre
3. Dr. Chuah Kue-Peng, Economist, Bank Negara Malaysia

Ladies and gentlemen,

Let me briefly share with you about The SEACEN Research and Training Centre. As approved by the Board of Governors in February 2011, our new vision is “To be the Regional Learning Hub for Central Banks in the Asia-Pacific Region”. As a Learning Hub, SEACEN aspires to drive central bank excellence in learning for the region, by being a platform for collaboration for members to synergise efforts in central bank learning among themselves, and across SEACEN’s network base. The vision would be achieved through SEACEN’s mission in building capacity in central banking and fostering networking and collaboration. With strong commitments from our stakeholders as seen in this Course, we are confident that our vision will become a reality.

It is my pleasure to inform you that 22 participants from 10 central banks in the Asia Pacific region will be participating in this Course. The next one week will be a highly intensive time of learning and the interactions among participants and resource persons will enrich your learning experience in the area of macroeconomic and monetary policy management. Furthermore, this event also provides a regional platform for sharing of knowledge and experiences as well as fostering closer co-operation among central bankers.

I sincerely hope that all the participants in this course will be able to gain maximum benefits that can be synergized by sharing knowledge and experience with the resource persons and other participants and can be amplified by adding more hands-on experience after going back to their respective central banks.

I wish you a productive and rewarding learning experience.

Thank you.