

# The Global Structural Macroeconometric Modelling Project

*Identifying global macroeconomic interdependencies using a revolutionised Global Vector Autoregression GVAR*

The aim of the project is to identify channels of macroeconomic interdependence and global synchronisation of financial markets, utilising a substantial sum of international data. A new modelling strategy is introduced based on the Global Vector Autoregression (GVAR) model pioneered by H. M. Pesaran and others, Pesaran (2004) atheoretical model is further upgraded in regional coverage and, more importantly, in providing detailed structural modelling incorporating theory-based channels of interdependence and cross country transmission mechanisms to be empirically tested and identified. With research outcomes interpreted in a policy formulation context.

The project serves as a baseline for prospective assignments within a Central Bank research department and forms as prospective PhD thesis.

## Objectives (*Motivation*)

- Provide a Long Run Structural Modelling of Key Economic Regions.
- Testing the Validity of Long-Run relations suggested by economic theory.
- Modelling macroeconomic interdependence and transmission mechanisms at a global scale.
- Incorporating global geopolitical constraints, financial and political events.
- Examine Oil Price hikes and Stock Market Synchronisation.

## Intended Outcomes

- Contribute to the literature in a 'pure research' context (prospective PhD dissertation).
- Informing Policy formulation through usage of the new "Stylized Facts" & Improving Forecasts.
- Developing specialised Central Banking software for Macroeconometric policy modelling.