TOPICS ON APPLIED MACRO & LABOUR

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SYLLABUS:

Topic 1. VAR Models in Macro (Brief overview)

1.1 General Framework (VAR, ECM, SVAR)

1.2 Estimation of VAR, ECM, SVAR & Proxy SVAR Models

1.3 Identifying Restrictions: Short & Long-Run, Sign, Heteroskedasticity, IV

1.4 Specifying the Co-integrating Rank

1.5 Bayesian VARs

Topic 2. Empirical Applications

2.1 Inflation Shocks and Money Neutrality

2.2 Labour Market Shocks

2.3 Fiscal Shocks

2.4 Identifying Monetary Policy Switching Regimes

2.5 What Do VARs mean when Shocks are Persistent?

2.5. Stock Prices, News Shocks & the Business Cycle

2.6 An Attack on RBC Models: Technology vs. Demand Shocks

2.7 Using DSGE Models to Check Identification in SVARs

Topic 3. Miscellanea

3.1 Structural Breaks

3.2 Modelling TS with Changes in Regime through Markov Chains

3.3 Marked-Point Processes in High-frequency data

3.4 Estimation of Taylor Rules & NK Phillips Curves

3.5 Quantile Regression Models

3.6 Large Dimensional Factor Models (Estimation, Forecasting, Breaks, Quantiles)

3.7 Testing for Rational Bubbles.

3.8 Calibration /Estimation of Search & Matching Models

Topic 4. **Machine Learning Techniques**

4.1 Estimating Prediction Error

4.2 Shrinkage and LASSO methods

4.3 Nonlinear methods

4.5 Regression Trees, Random Forests

4.6 Causal Inference with Machine Learning