

Problem Set 1

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CAP 4763 Time Series Modelling and Forecasting

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3 Static Model

3a

Explain why the size of Florida's labor force, the prime age employment to population ratio, and Florida building permits, might be closely related to the number of nonfarm jobs in Florida in a static long run sense. You might want to make some time series plots to give your data context. (Perhaps where one variable is employment and the other, on the other axis, is one of the other variables.)

3b

Estimate the static model relating monthly nonfarm employment in Florida to the other three variables (all in logs) without controlling for seasonal impacts or a time trend.

3c

Estimate the static model with month indicators and a time trend.

3d

Compare your results from b and c and interpret any differences. What do the seasonal and time trend variables contribute?

3e

Why should you be cautious using the results of these models for testing any hypotheses about the underlying relationships?

4 Finite Distributed Lag Model

4a

Estimate the distributed lag model relating monthly nonfarm employment to lags 0 to 12 of the three predictor variables without month indicators and a time trend.

4b

4d

Appendix A

Appendix B
