ISA 444: Business Forecasting

20 - Seasonal ARIMA Models

Fadel M. Megahed

Associate Professor
Department of Information Systems and Analytics
Farmer School of Business
Miami University
Email: fmegahed@miamioh.edu
Office Hours: Click here to schedule an appointment

Spring 2021

Outline

1. **Preface**

2. Seasonal ARIMA Models

Recap of What we Have Covered Last Class

Main Learning Outcomes

- Describe AIC, AICc, and BIC and how they are used to measure model fit.
- Describe the algorithm used within the auto.arima() function to fit an ARIMA model.
- Describe the results of the auto.arima() function.

Learning Outcomes for Today's Class

Main Learning Outcomes

- Describe a seasonal ARIMA model and explain how it applies to a seasonal time series.
- Recognize when to fit a seasonal ARIMA model.

Outline

Live Coding: Example 1

```r
pacman::p_load(astsa)
birthData = birth # also from the astsa package
```

In-Class Activity

Use the data "20 - Netflix_growth_pct_2000.csv". Fit an ARIMA model using the auto.arima() function. Describe the model that is fit, evaluate the model residuals.

Things to Do to Prepare for Exam (Next Week)

- Thoroughly read Chapters 6.2-6.8 of our textbook.

- Go through the slides, examples and make sure you have a good understanding of what we have covered.

- No assignment for today's class.

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