# ARIMA Sector Forecast Report

October 24, 2013



## INTRODUCTION

#### **ABOUT DESIGN & ANALYTICS**

Design & Analytics is a project founded by Adam Hogan, specializing in design, modeling, and analytics support. Design and Analytics makes broken things work, puzzling things intelligible, slow things fast, and ugly things beautiful. We provide consulting and project-management services in design, analytics, and reports automation, with an emphasis in financial and economic applications.

#### ABOUT THE ARIMA SECTOR FORECAST REPORT SERIES

This is one of a series of daily reports created by Autoregressive Integrated Moving Average (ARIMA) models to forecast financial or economic time series that may be of wider interest. A brief description of the intuition behind this algorithm is available in the summary section. The model itself is built on an auto-fit algorithm from the Free and Open Source R statistical software package, which selects forecast parameters to use based on historical goodness-of-fit and parsimony considerations. The forecast then projects 15 business days and provides 50%- and 95%-confidence intervals. The data are graphed, saved, and reported.

It is emphasized that the intended purpose of this forecast is strictly non-financial. Do not use this in your trading strategy, or consider it to have any bearing on buying or selling activity. It is not a recommendation of any kind, to buy, to sell, to hold, or to dream. It is simply the publication of the result of a standard and relatively naïve econometric model demonstrating how the current mechanics of the market are pricing future activity as of today. This is not equivalent to what will actually happen in the future and should be treated with skepticism. For individual stocks and sectors, there are better models. This is neither optimal nor rigorously tested. It is simply a yard stick—one of many competing yardsticks for measuring a quantity that may or may not be a yard. However, the results of the model can be interesting and useful for some purposes—depending on your assumptions—providing a point of comparison or baseline against others.

#### ABOUT THIS DOCUMENT

What this report showcases, in addition to the marriage of analytics and design, is a report automation infrastructure. This runs every day, and has an infrastructure devoted to it to analyze, graph, typeset, and publish automatically and without any human intervention a newsletter-quality report, something with wide applicability across fields and audiences.

### THIS REPORT'S SPONSORS





