

Configuration Manual

Forecasting IHD Mortality: A Comparative Analysis of European Drivers

MSc Research Project
In Data Analytics

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Configuration Manual

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1 Introduction

This document provides the necessary steps to set up the software environment and run the analysis code contained in the Jupyter Notebook (.ipynb) file.

Its purpose is to ensure that the research is fully transparent and reproducible, allowing any reviewer to verify the findings by running the experiment from start to finish.

2 System and Software Prerequisites

To run the analysis, a standard computer with Python and the Jupyter Notebook environment installed is required. The simplest way to obtain both is by installing the Anaconda Distribution, which is a free and open-source platform for Python.

- **Required Software:** Anaconda (which includes Python and Jupyter). It can be download it from anaconda.com/download

3 Library Installation

Once Anaconda is installed, the specific Python libraries used in this analysis must be installed.

1. Open the Anaconda Prompt (on Windows) or the Terminal (on Mac/Linux).
2. Copy and paste the following commands into the prompt, one at a time, and press Enter. This will install all the necessary packages.

```
pip install pandas
pip install numpy
pip install requests
pip install matplotlib
pip install seaborn
pip install statsmodels
pip install linearmodels
pip install scipy
pip install eurostat
pip install pmdarima
pip install tensorflow scikit-learn
pip install xgboost
pip install pygam
pip install jsonstat
```

4 Execute the Code

With the environment set up, the analysis can now be run.

1. **Navigate to the project folder:** In your Anaconda Prompt or Terminal, use the `cd` command to navigate to the main project folder where the `.ipynb` file is located. For example:

```
cd path/to/Thesis_IHD_Full_Analysis
```

2. **Launch Jupyter Notebook:** Once in the correct folder, type the following command and press Enter:

```
jupyter notebook
```

This will launch the Jupyter Notebook interface in the web browser.

3. **Open the Notebook file:** In the browser window that opens, a list of files will be visible. Click on

```
Thesis_IHD_Full_Analysis.ipynb to open the notebook.
```

4. **Run the analysis:** To execute the entire analysis from start to finish, go to the menu at the top of the notebook, click "**Kernel**", and then select "**Restart & Run All**".

A confirmation box will appear; click the "**Restart and Run All Cells**" button.