

# IRP 15: Individual Research Project

## Topic

Deep Generation of Financial Time Series

## Involvement

- IRP belongs to WP1 (Financial Data Space)
- WP Leader: BBU (Cluj)
- Two supervisors from secondments: FRA, and WWU

## Objectives

Macroeconomics factors such as central banks' interest rates, inflation, unemployment rate, house price indices, to name a few, are of foremost importance in Financial Markets. The aim of this project is to **benchmark various methods** from classical statistical learning and modern machine learning in order to **predict their point value in the future**. As a second step the student will be using the above predictions to **forecast future market scenarios in a what-if fashion**.

## Deliverables

We will **apply recent findings** from the ML literature on **time series forecasting** in the first step. In the second phase of the project, the DC will be able to conduct **research** in the field of **causal inference in finance**, which also appears to be an extremely promising area of study. The anticipated outcome will be three research/conference papers describing the data analysis, modelling approaches, and experimental results.

