

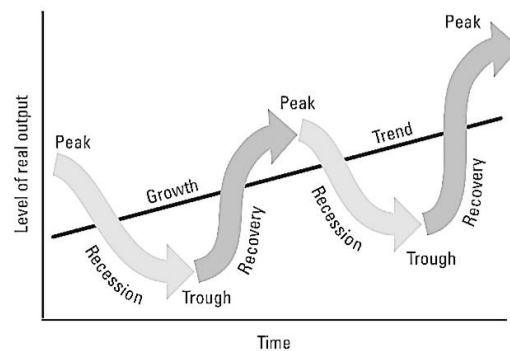
## AN INVESTIGATION OF MACHINE LEARNING METHODS FOR PREDICTIVE MODELLING OF MACROECONOMIC TRENDS IN THE UK

James Alexander Adriano Aymer

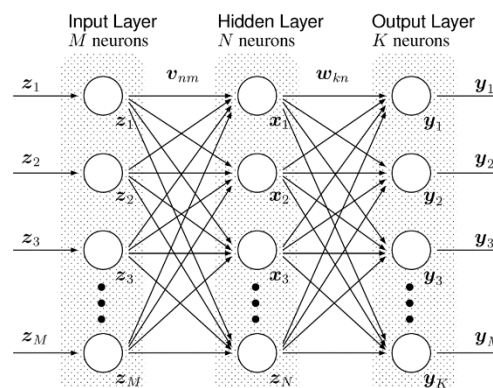
BSc in Cybernetics, j.aymer@student.reading.ac.uk

### ABSTRACT

This paper details the comparative study conducted between selections of regressor methodologies provided from *scikit-learn*, together with a hard coded *Artificial Neural Network*. Regression analysis was applied to a constrained dataset of *macroeconomic* variables, in the effort of underpinning the best solution in terms of predicting the dependent variable of *Gross Domestic Product*.



*Figure 1. The Universal Business Cycle*



*Figure 2. The Multi-layer Perceptron network*

J Aymer, An Investigation of Machine Learning Methods for Predictive Modelling of Macroeconomic Trends in the UK , *Proc. 13<sup>th</sup> School Conf. for Annual Research Projects*, V F Ruiz (Ed), pp. xx-yy, University of Reading, 24th May 2016.