An assignment in neural networks in Åbo Akademi.

Extrapolating data series with a backpropagation network

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Contents

1. Introduction 2
    1.1. The problem 2
2. Test runs 4
    2.1. Testing methods 4
    2.2. Test runs with our simulator 5
    2.3. Test runs with SNNS 12
3. Summary and conclusions 15

1. Introduction

We wanted to make a network that predicts how a data series will continue in future. The requirements for the data set were that it's x-values should be ascending and discrete (or they could be made such by preprocessing). The y-values should be cyclic or otherwise more sensible than totally random.

1.1. The problem

The set we chose for our study is the *index of cost of living* in Finland. The size of the set is 53 months, from January 1989 to June 1993.

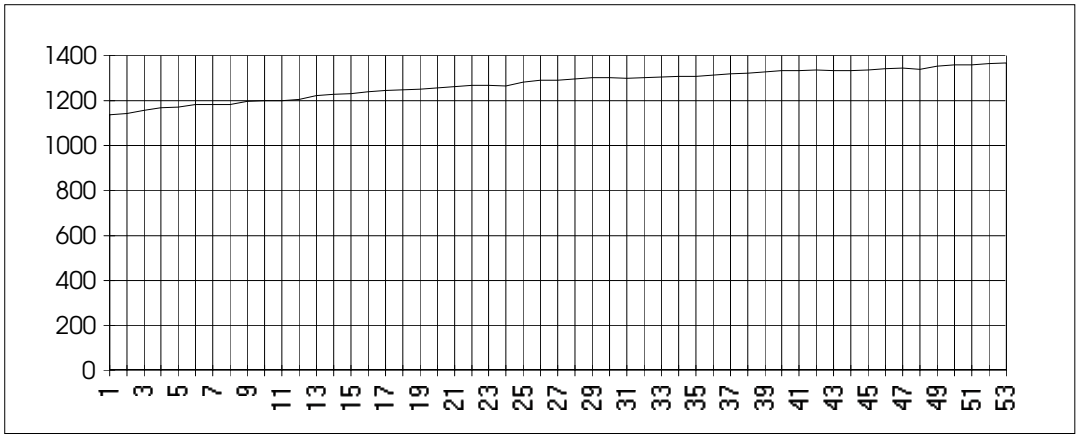

Chart 1.1. The original index curve. The x-axis is the number of month since January 1989 and the y-axis is the index. Index is a relative value, where the year 1952 is 100.