By following the sequence of commands recorded in this log, you will be able to fit a flexible trend function to the logarithms of 129 annual observations on U.K. GDP. The flexible trend will accommodate the structural breaks that followed two world wars. It should also be possible to accommodate the structural breaks occasioned by the financial crisis of 1929.

IDEOLOG.PAS: Ideal Filters and their Approximations

1. Page Parameters
→ **1**

SPECIFY THE PAGE PARAMETERS

Do you want to output in PostScript? Y/N
→ **N**

Specify the frame surrounding the graph.
5cm x 3cm <= width x height <= 13.5cm x 9.5cm.

For two diagrams per page use 9cm times 6cm
For three diagrams per page use 9cm times 3.75cm

Specify the width
→ **99**
Specify the height
→ **99**

2. Get the Data and/or Transform the Data
→ **2**

GET THE DATA

1. Read the Data
→**1**

Name the Data File =
→ **hendata.txt**

DECIDE! Do you wish to construct a univariate series by joining the lines? Y/N
→ **Y**

READ A DATA FILE

There are 129 data points
What is the interval between observations?

(a) Annual

→ **a**

NAME THE DATA

By default the data will be described as
<<an unidentified data series>>

Do you wish to rename the data Y/N?
→ **N**

7. Return to the Main Menu
→ **7**

IDEOLOG.PAS: Ideal Filters and their Approximations

6. Variable Smoothing
→ **6**

SMOOTHING WITH LOCAL VARIATIONS

1. Specify the Regular Smoothing Parameter
→ **1**

SPECIFY THE FREQUENCY REGULAR SMOOTHING PARAMETER

What is the value of the smoothing parameter?
→ **16000**

SMOOTHING WITH LOCAL VARIATIONS

2. Specify the Regions of Smoothing Variation
→ **2**

The user will be asked to specify no more than three sub intervals within the period spanned by the data, wherein the values of the smoothing parameter can be reduced in order to enhance the flexibility of the trend so as to allow it to accommodate structural breaks

SPECIFY THE FIRST REGION OF ADAPTED SMOOTHING

Specify the data central point
→ **46**

Specify the number of points above and below the central point
→ **5**

Do you accept this region Y/N?
→ **Y**

SPECIFY THE SECOND REGION OF ADAPTED SMOOTHING

Specify the data central point
→ **72**

Specify the number of points above and below the central point
→ **5**

Do you accept this region Y/N?
→ **Y**

Do you wish to specify additional regions Y/N?
→ **N**

SMOOTHING WITH LOCAL VARIATIONS

3. Specify the Local Smoothing Parameters
→ **3**

2. Specify the Smoothing Parameters
→ **2**

Specify the value of the smoothing parameters in the FIRST subinterval
→ **5**

Specify the value of the smoothing parameters in the SECOND subinterval
→ **5**

SMOOTHING WITH LOCAL VARIATIONS

4. Specify the Profile of the Smoothing Variation
→ **4**

SPECIFY THE PROFILE OF THE SMOOTHING PARAMETER

2. Square Trough
→ **2**

SMOOTHING WITH LOCAL VARIATIONS

5. Smooth the Data
→ **5**

<<A trend determined by a filter with a variable smoothing parameter
applied to 129 observations of an unidentified data series >>
→ **<RETURN>**

<<The residual sequence from fitting a trend via a filter with a variable smoothing parameter to 129 observations of an unidentified data series >>
→ **<RETURN>**

{++}