Economic Forecasting
Exercise Sheet 1

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The exercises for this module require the use of the software package *EViews* along with the data files provided. For those who have not used *EViews* before I provide some hints in the exercises.

1. (a) Open the *Eviews* file **participation.wf1**, which contains annual data from 1980-2000 on participation rates in the USA (percentage of people in the labour force) for men (*MALE*) and women (*FEMALE*).

   (b) Create *one-step ahead* forecasts for the series FEMALE and MALE for the period 1990-2000 using each of the naïve forecasting rules:

      (i) *constant level forecast*

      (ii) *constant change forecast*

      (iii) *constant growth forecast*

      Hint: the three forecasts can be created as new series using the *Genr* tab in the workfile window and then typing in one of the following expressions:

      ```
      CLEV1 = X(-1)
      CCH1 = X(-1)*2 - X(-2)
      CGR1 = X(-1) * X(-1) / X(-2)
      ```

      where X is the name of the series to be forecast (MALE or FE-MALE). To forecast from 1990 only, make sure that the *Sample* in the *Genr* window is set to 1990 2000.

   (c) Graph the three forecast series alongside the forecast variable. Which of the three forecasts is the best?

      Hint: to graph several different series together, highlight their names in the workfile window and click on the *View* tab. Then select *Show* and click *Ok*. This opens the selected variables as a group. Then, within the new *Group* window, click the *View* tab and select *Graph ...* and then click *Ok*.

(d) Create *multi-step* forecasts for both series from 1990-2000 using each of the three naïve forecasting models.

Hint: multi-step forecasts can be generated recursively from initial values of the series to be forecast. Firstly, create copies of the forecast variable using the *Genr* commands:

```
CLEVH = X
CCHH = X
CGRH = X
```

where X is the name of the series to be forecast (MALE or FEMALE). Then use one of the recursive formulae:

```
CLEVH = CLEVH(-1)
CCHH = CCHH(-1)*2 - CCHH(-2)
CGRH = CGRH(-1) *  CGRH(-1) /  CGRH(-2)
```

with the sample period set to 1990 2000.

(e) Compare the multi-step forecast generated in (d) with the one-step ahead forecasts from (b). What do you conclude?