Evaluation Exercise 2

1) Import in MATLAB all the data contained in the file STOCK-INT2010.XLS and perform the transformation in datatran_int.m

2) Consider annual real stock market returns for the UK, $\mathbf{r}_{t,t+4}^{UK}$ Estimate the over the sample 1974:4 1999:4 the following predictive regressions

$$\mathbf{r}_{t,t+4}^{UK} = \beta_0 + \beta_1 dp_t^{UK} + \varepsilon_{t+k} \tag{1}$$

- Estimate the parameter vector $\beta = (\beta_0^i, \beta_1^i)\prime$ via OLS in MATLAB. Compute the corresponding t-statistics and R^2.
- Use the the sample 2000:1 2009:4 to construct and evaluate the performance in real terms of a portfolio strategy that at the beginning of each year allocates portfolio between two assets: shares and a 1-year inflation indexed bill whose annual return is equal to CPI inflation plus 1.5 per cent.
- Please indicate the value of γ that describes your preferences in the following utility function (W is wealth):

$$U(W) = E(W) - \frac{\gamma}{2}\sigma^2(W)$$

- Report on a graph the value over time of 1 UK pound invested in 2000:1 using the following strategies:

1.
   - inflation indexed bill only;
   - shares only (buy and hold) ;
   - econometric model based ;
   - optimal ex post.