"Read me" for the excel files

The US-data

Table 1 in the paper is based on the original Mehra and Prescott data, which are enclosed. This data set is made accessible in an Excel-file named CrossMehraPrescott188919data-tojournal-xlsx(117kb).xlx.

By clicking at "Basic data", the variables are explained in the heading, in particular how the various returns are deflated and computed.

As with Excel, by clicking on the various entires, it is explained how these are computed. The letters P and S relates to population and sample, i.e., division by n or n-1.

By clicking at "Computational data" the various entries in Table 1 can be found at the end of this file. For example, the average consumption growth rate of 0.0183 is found under Average and the variable "c". The average return on S&P-500 of 0.0698 is found under Average and the variable "m". The average return on Government bills of 0.0080 is found under Average and realF.

The standard deviations are found in the next line "Stdev.S".

The covariance $\text{cov}(M, c)$ in Table 1 of 0.002226 is found in the line "Covariance.S with S=M" and "c". The $cov(M, b)$ i of 0.001401 is found in the same line and "realF". The covariance $\text{cov}(c, b)$ of -0.000158 is found in the line "Covariance.S with c" and "realF."

These are the basic data listed in Table 1.

Table 2 has been constructed by simply transforming the yearly returns R_{t+1} to $\ln(1 + R_{t+1})$, and similarly for the growth rate of aggregate consumption. Then we find averages and variances and covariances on the transformed data for continuous-time compounding.

By clicking at "LOGdata" the various entries in Table 2 can be found at the bottom. For example, the average consumption growth rate with continuous compounding is 0.018 found in the line "MuS(.)" and "Lc". Similarly for the return on "S&P-500" of 0.068 and the real interest rate of 0.0080 in the next two columns.

The standard deviations are found in the line "Stdev.S": 0.0355, 0.1584,

0.0574, and 0.1595 respectively.

The covariance $\text{cov}(M, c)$ in Table 2 of 0.002268 is found in the line "Covariance.S with S=M" and "Lc". The $\text{cov}(M, b)$ of 0.001477 is found in the same line and "LrealF". The covariance $\text{cov}(c, b)$ of -0.000149 is found in the line "Covariance.S with c" and "LrealF." This accounts for Table 2.

The Table 3, 4 and 5 are computed by solving two equations in two unknown, using "Maple", as explained in the paper.

The Norwegian data

The Norwegian data in Section 8 of the paper is based on the documents "Norwegian data" and " Excel Norwegian data". The stock market data on the page "Returns to the portfolio of Norwegian stocks" is based on "Stock market data base NHH" (provided by Professor Thore Johnsen at the Norwegian School of Economics).

The consumption data in Table A1 of the document "Norwegian data", given in fixed 2005 prices, has been adjusted by population sizes (given in table A5 of the same document) to arrive at per capita consumption in the "Excel Norwegian data.xlsx" file. The returns to the portfolio of Norwegian stocks (Table A2) are adjusted for inflation by the consumer price index (table A4), and similarly for the risk-free rate. Real per-capita national wealth is given in Table A6 and real annual per-capita growth rate of Norway's national wealth is given in the "Excel Norwegian data.xlsx" file.

The variables in the Excel-file are self-explanatory. The data for the simple returns (and logarithmic returns) are given at the end of the data-series. The simple returns have been used in Table 6, with the standard adjustment to continuous compounding explained above (the ln data have not been used in this paper). Similarly, the data for the national wealth are provided, that gives rise to the two moments $\sigma_W = .01849$ and $\sigma_{W,M} = 0.00142$ mentioned in the paper, the only moments needed, after transformed to continuous compounding (not shown in the Excel-file).

Finally, Table 7 has been computed by solving two non-linear equations in two unknowns in Maple, as explained in the paper.