**Appendix. The dyads ratio algorithm**

Responses are scored from high (most left or Labour) and to low (most right or Conservative) responses. It is straightforward to code these items since the parties have taken consistent (opposing) positions. Assigning the “wrong” polarities to responses makes no difference to the estimates of mood – it simply results in negative factor loadings that alert us to a coding error (Stimson 1999).

All preferences are expressed as an index of preferences:

These indexes reflect then balance of left-right preferences on controversial issues. They are fed into the dyads ratio algorithm in order to estimate mood.

The policy mood represents a double summation across both individuals and issues (Stimson 1999). The first step is, therefore, to aggregate responses for each individual series. These are expressed as an index of preferences, which is simply left-wing preferences as a proportion of all substantive (i.e. left and right) responses:

These indexes reflect then the balance of left-right preferences on each controversial issue as measured by specific items. These are the raw data that are fed into the dyads ratio algorithm to estimate mood. The algorithm expresses these indexes as ratios at two time points (‘dyads’):

These dyads have an expected value of 1.0 and can be averaged to produce a rough estimate of underlying preferences (Pt). This step enables us to complete the double summation by averaging across individual item series. The algorithm calculates all the possible dyads for each series xtk iteratively and averages the

Not all items are equally valid indicators of underlying preferences. Each series is therefore weighted by their estimated validity (hi2):

Transforming the index of preferences into ratios causes the original metric to be lost. This is reintroduced by a standardisation of the latent scale in terms of the validity-weighted means and standard deviations of the input items (Stimson 1999). The individual preference series are scored as per cent left over per cent left plus per cent right. The extracted policy mood has the same interpretation. Accordingly, 50 is the neutral point. Values above 50 indicate net left preferences and those below 50 indicate net right preferences.

The series can also be smoothed using an exponential smoothing operator:

Yt = αxt + (1 – α)xt-1

Where y is the smoothed version of x (Stimson 1999, p. 135). Smoothing can have a dramatic effect where – as in the early years of this study – data is in short supply.

In this paper we use the unsmoothed estimates, since these are more sensitive to both policy and economic conditions.