

## A. ONLINE APPENDIX

Table A.1: Full table for measurement part of Model 4. Point estimates, standard errors and 95% confidence bounds for loadings  $[\lambda_i^{(1)}]$ , thresholds  $[\tau_{ic}]$ , and item-bias effects  $[\delta_{im}^{(1)}]$ . Countries represented by each mixture component are given in brackets.

|                                        |              |       | 95% CI |        |
|----------------------------------------|--------------|-------|--------|--------|
|                                        | coef         | s.e.  | low    | high   |
| <i>Loadings</i>                        |              |       |        |        |
| $\lambda_1^{(1)}$ [Health] .....       | 1.311        | 0.050 | 1.213  | 1.409  |
| $\lambda_2^{(1)}$ [Unemployment] ..... | 1.404        | 0.053 | 1.300  | 1.508  |
| $\lambda_3^{(1)}$ [Pensions] .....     | 1.986        | 0.092 | 1.805  | 2.167  |
| <i>Thresholds</i>                      |              |       |        |        |
| $\tau_{11}$ .....                      | -6.785       | 0.229 | -7.233 | -6.336 |
| $\tau_{12}$ .....                      | -4.460       | 0.171 | -4.796 | -4.124 |
| $\tau_{13}$ .....                      | -1.436       | 0.149 | -1.727 | -1.144 |
| $\tau_{14}$ .....                      | 1.324        | 0.146 | 1.039  | 1.609  |
| $\tau_{21}$ .....                      | -4.408       | 0.185 | -4.772 | -4.045 |
| $\tau_{22}$ .....                      | -2.244       | 0.166 | -2.570 | -1.919 |
| $\tau_{23}$ .....                      | 0.870        | 0.154 | 0.568  | 1.173  |
| $\tau_{24}$ .....                      | 3.135        | 0.163 | 2.815  | 3.456  |
| $\tau_{31}$ .....                      | -8.029       | 0.323 | -8.662 | -7.395 |
| $\tau_{32}$ .....                      | -5.465       | 0.257 | -5.969 | -4.960 |
| $\tau_{33}$ .....                      | -0.725       | 0.214 | -1.144 | -0.306 |
| $\tau_{34}$ .....                      | 2.501        | 0.230 | 2.051  | 2.951  |
| <i>Item-bias effects</i>               |              |       |        |        |
| on Health .....                        | <i>fixed</i> |       |        |        |
| on Unemployment .....                  |              |       |        |        |
| $\delta_{21}^{(1)}$ [AU, NZ] .....     | -2.579       | 0.115 | -2.805 | -2.353 |
| $\delta_{22}^{(1)}$ [DE-E, SE] .....   | 0.657        | 0.098 | 0.464  | 0.849  |
| $\delta_{23}^{(1)}$ [DE-W, USA] .....  | 0.584        | 0.080 | 0.428  | 0.741  |
| $\delta_{24}^{(1)}$ [GB, IE, NO] ..... | -0.747       | 0.095 | -0.934 | -0.560 |
| $\delta_{25}^{(1)}$ [CH] .....         | 1.910        | 0.130 | 1.656  | 2.165  |
| $\delta_{26}^{(1)}$ [FR, CA] .....     | 0.175        | 0.093 | -0.007 | 0.358  |
| on Pensions .....                      |              |       |        |        |
| $\delta_{31}^{(1)}$ [AU, NZ] .....     | -1.519       | 0.140 | -1.793 | -1.244 |
| $\delta_{32}^{(1)}$ [DE-E, SE] .....   | -0.339       | 0.128 | -0.590 | -0.088 |
| $\delta_{33}^{(1)}$ [DE-W, USA] .....  | 0.302        | 0.102 | 0.103  | 0.501  |
| $\delta_{34}^{(1)}$ [GB, IE, NO] ..... | -0.244       | 0.117 | -0.474 | -0.015 |
| $\delta_{35}^{(1)}$ [CH] .....         | 1.822        | 0.172 | 1.485  | 2.160  |
| $\delta_{36}^{(1)}$ [FR, CA] .....     | -0.023       | 0.120 | -0.258 | 0.212  |

Table A.2: Measurement Part of Model 6 using a continuous LV. Point estimates, standard errors and 95% confidence bounds for loadings  $[\lambda_i^{(1)}]$ , thresholds  $[\tau_{ic}]$ , and item-bias effects  $[\delta_i^{(1)}]$ .

|                                        | coef   | se    | 95% CI |        |
|----------------------------------------|--------|-------|--------|--------|
|                                        |        |       | low    | high   |
| <i>Loadings</i>                        |        |       |        |        |
| $\lambda_1^{(1)}$ [Health] .....       | 1.355  | 0.049 | 1.259  | 1.451  |
| $\lambda_2^{(1)}$ [Unemployment] ..... | 1.587  | 0.057 | 1.475  | 1.698  |
| $\lambda_3^{(1)}$ [Pensions] .....     | 2.006  | 0.086 | 1.837  | 2.174  |
| <i>Intercepts</i>                      |        |       |        |        |
| $\tau_{11}$ .....                      | -6.263 | 0.224 | -6.702 | -5.825 |
| $\tau_{12}$ .....                      | -3.947 | 0.167 | -4.275 | -3.620 |
| $\tau_{13}$ .....                      | -0.944 | 0.148 | -1.234 | -0.655 |
| $\tau_{14}$ .....                      | 1.829  | 0.149 | 1.538  | 2.120  |
| $\tau_{21}$ .....                      | -4.742 | 0.204 | -5.141 | -4.342 |
| $\tau_{22}$ .....                      | -2.578 | 0.184 | -2.937 | -2.218 |
| $\tau_{23}$ .....                      | 0.556  | 0.169 | 0.224  | 0.887  |
| $\tau_{24}$ .....                      | 2.868  | 0.178 | 2.520  | 3.216  |
| $\tau_{31}$ .....                      | -7.637 | 0.308 | -8.241 | -7.034 |
| $\tau_{32}$ .....                      | -5.123 | 0.246 | -5.605 | -4.641 |
| $\tau_{33}$ .....                      | -0.501 | 0.211 | -0.914 | -0.088 |
| $\tau_{34}$ .....                      | 2.638  | 0.226 | 2.195  | 3.081  |
| <i>Item-bias effects</i>               |        |       |        |        |
| on Health .....                        |        |       |        |        |
| $\delta_2^{(1)}$ [Unemployment] .....  | -0.853 | 0.041 | -0.933 | -0.774 |
| $\delta_3^{(1)}$ [Pensions] .....      | -0.509 | 0.044 | -0.594 | -0.423 |

Table A.3: Structural part of Model 6 using a continuous LV. Point estimates, standard errors and 95% confidence bounds for Covariate effects  $[\beta_p^{(2)}]$  and continuous random effect  $[\gamma^{(2)}]$ .

|                                                    | Coef.  | se    | 95% CI |        |
|----------------------------------------------------|--------|-------|--------|--------|
|                                                    |        |       | low    | high   |
| Covariate effects                                  |        |       |        |        |
| $\beta_1^{(2)}$ [Income] .....                     | -0.062 | 0.019 | -0.098 | -0.025 |
| $\beta_2^{(2)}$ [Skills] .....                     | 0.187  | 0.017 | 0.153  | 0.221  |
| $\beta_3^{(2)}$ [Part-time] .....                  | 0.043  | 0.049 | -0.053 | 0.139  |
| $\beta_4^{(2)}$ [Unemployed] .....                 | 0.742  | 0.092 | 0.562  | 0.921  |
| $\beta_5^{(2)}$ [Not in LF] .....                  | 0.323  | 0.049 | 0.227  | 0.418  |
| $\beta_6^{(2)}$ [Self-employed] .....              | -0.173 | 0.051 | -0.273 | -0.072 |
| $\beta_7^{(2)}$ [Age] .....                        | 0.002  | 0.001 | -0.001 | 0.004  |
| $\beta_8^{(2)}$ [Female] .....                     | 0.219  | 0.036 | 0.148  | 0.290  |
| $\beta_9^{(2)}$ [Informed] .....                   | -0.074 | 0.017 | -0.106 | -0.041 |
| $\beta_{10}^{(2)}$ [Left-right party support] .... | -0.266 | 0.021 | -0.308 | -0.224 |
| Continuous Random effect                           |        |       |        |        |
| $\gamma^{(2)}$ .....                               | 0.419  | 0.018 | 0.384  | 0.453  |