Table 5

The equity premium puzzle[a]

| Country | Sample period | $\overline{aer_e}$ | $\sigma(er_e)$ | $\sigma(m)$ | $\sigma(\Delta c)$ | $\rho(er_e, \Delta c)$ | $\text{Cov}(er_e, \Delta c)$ | RRA(1) | RRA(2) |
|---|---|---|---|---|---|---|---|---|---|
| USA | 1947.2–1996.3 | 7.852 | 15.218 | 51.597 | 1.084 | 0.193 | 3.185 | 246.556 | 47.600 |
| | | | | | | | | | |
| AUL | 1970.1–1996.2 | 3.531 | 23.194 | 15.221 | 2.142 | 0.156 | 7.725 | 45.704 | 7.107 |
| CAN | 1970.1–1996.2 | 3.040 | 16.673 | 18.233 | 2.034 | 0.159 | 5.387 | 56.434 | 8.965 |
| FR | 1973.2–1996.2 | 7.122 | 22.844 | 31.175 | 2.130 | −0.047 | −2.295 | < 0 | 14.634 |
| GER | 1978.4–1996.2 | 6.774 | 20.373 | 33.251 | 2.495 | 0.039 | 1.974 | 343.133 | 13.327 |
| ITA | 1971.2–1995.2 | 2.166 | 27.346 | 7.920 | 1.684 | 0.002 | 0.088 | 2465.323 | 4.703 |
| JPN | 1970.2–1996.2 | 6.831 | 21.603 | 31.621 | 2.353 | 0.100 | 5.093 | 134.118 | 13.440 |
| NTH | 1977.2–1996.1 | 9.943 | 15.632 | 63.607 | 2.654 | 0.023 | 0.946 | 1050.925 | 23.970 |
| SWD | 1970.1–1994.4 | 9.343 | 23.541 | 39.688 | 1.917 | 0.003 | 0.129 | 7215.176 | 20.705 |
| SWT | 1982.2–1996.2 | 12.393 | 20.466 | 60.553 | 2.261 | −0.129 | −5.978 | < 0 | 26.785 |
| UK | 1970.1–1996.2 | 8.306 | 21.589 | 38.473 | 2.589 | 0.095 | 5.314 | 156.308 | 14.858 |
| USA | 1970.1–1996.3 | 5.817 | 16.995 | 34.228 | 0.919 | 0.248 | 3.875 | 150.136 | 37.255 |
| | | | | | | | | | |
| SWD | 1920–1993 | 6.000 | 18.906 | 31.737 | 2.862 | 0.169 | 9.141 | 65.642 | 11.091 |
| UK | 1919–1993 | 8.677 | 21.706 | 39.974 | 2.820 | 0.355 | 21.738 | 39.914 | 14.174 |
| USA | 1891–1994 | 6.258 | 18.534 | 33.767 | 3.257 | 0.497 | 30.001 | 20.861 | 10.366 |

[a] $\overline{aer_e}$ is the average excess log return on stock over a money market instrument, plus one half the variance of this excess return: $\overline{aer_e} = \overline{r_e - r_f} + \sigma^2(r_e - r_f)/2$. It is multiplied by 400 in quarterly data and 100 in annual data to express in annualized percentage points. $\sigma(er_e)$ and $\sigma(\Delta c)$ are the standard deviations of the excess log return $er_e = r_e - r_f$ and consumption growth $\Delta c$, respectively, multiplied by 200 in quarterly data and 100 in annual data to express in annualized percentage points. $\sigma(m) = 100\overline{aer_e}/\sigma(er_e)$ is calculated from equation (12) as a lower bound on the standard deviation of the log stochastic discount factor, expressed in annualized percentage points. $\rho(er_e, \Delta c)$ is the correlation of $er_e$ and $\Delta c$. $\text{Cov}(er_e, \Delta c)$ is the product $\sigma(er_e)\sigma(\Delta c)\rho(er, \Delta c)$. RRA(1) is $100\overline{aer_e}/\text{Cov}(er_e, \Delta c)$, a measure of risk aversion calculated from equation (16) using the empirical covariance of excess stock returns with consumption growth. RRA(2) is $100\overline{aer_e}/\sigma(er_e)\sigma(\Delta c)$, a measure of risk aversion calculated using the empirical standard deviations of excess stock returns and consumption growth, but assuming perfect correlation between these series.

Abbreviations: AUL, Australia; CAN, Canada; FR, France; GER, Germany; ITA, Italy; JPN, Japan; NTH, Netherlands; SWD, Sweden; SWT, Switzerland; UK, United Kingdom; USA, United States of America.