

Correction to: Uncertainty and Consumer Durables Adjustment

Giuseppe Bertola¹ Luigi Guiso² Luigi Pistaferri³

We thank David Laibson, Peter Maxted and Benjamin Moll for pointing out some incorrect statements in Section 2.1 of our paper “Uncertainty and Consumer Durables Adjustment” (*The Review of Economic Studies* 2005, 72, 973–1007, <https://doi.org/10.1111/0034-6527.00358>).

On p. 982, after equation (7), the statement: “*Thus, the marginal utility afforded by a higher $M(t)$ does not depend on its within-period allocation to durables and nondurables, as indexed by the ratio $Z(t)$ of the actual durable stock to the optimal one.*” is incorrect, because $X^*(t)$ is proportional to $M(t)$.

Two lines below, the statement: “*Just as it would allow two-stage budgeting if adjustment costs were absent but relative prices were allowed to vary over time, it yields an equally tractable framework for our empirical application.*” is logically consistent with the previous statement but it is also incorrect because two-stage budgeting is only applicable along the frictionless path, not when the durable component is history-determined: intertemporal and adjustment dynamics are not separable.

Finally, still on p. 982, the statement “*Logarithmic preferences imply that infrequent adjustment leaves unaffected the Euler equation characterizing the optimal intertemporal allocation of purchasing power; and since adjustment costs are viewed in terms of utility they do not appear in the consumer’s budget constraint. Hence, the $M(t)$ process is the same for any adjustment costs.*” is also incorrect for similar reasons. Between adjustments of the durable stock, nondurable consumption depends on the durable stock, which therefore influences the marginal utility of nondurable expenditure, and at adjustment times durable consumption and the $\{M(t)\}$ process defined in the paper both jump discontinuously. While the optimal paths for any utility-terms adjustment cost all satisfy the same budget constraint, their expenditure timing differs.

The error is regrettable but inconsequential for the theoretical insights that motivate and support the paper’s empirical work and, because $X^*(t)$ is proportional not only to $M^*(t)$ but also

1. University of Turin, CEPR, CESifo. E-mail to giuseppe.bertola@unito.it

2. EIEF and CEPR

3. Stanford University, SIEPR, NBER and CEPR

to $C^*(t)$, can be expressed in terms of the ratio of the durable stock to nondurable consumption expenditure, which plays the same role as the M process does in the published paper's derivations.

The dynamic optimization problem in equations (9)-(11) results from writing the utility flow as sum of its level along the frictionless path and the infrequent adjustment utility flow's deviation from that hypothetical reference, which does not need to be solved explicitly when studying the trade-off between utility flow losses and costly adjustment.

That deviation depends on how the durable/nondurable ratio differs from its frictionless counterpart, as well as on the level of nondurable consumption, but first-order effects vanish in a second-order expansion around every point of the frictionless optimal path. Equations (9)-(11) follow as long as higher-order terms can be omitted and the dynamics of the log deviation of the actual from the frictionless durable/nondurable ratio are well approximated by a linear Brownian motion.

Our paper's empirical specifications only deal with that ratio and with the nondurable expenditure Euler equation which, in the absence of liquidity constraints, holds between and across adjustments and implies that nondurable consumption changes are unpredictable, like Brownian increments. The data we analyze do not reject that theoretical implication when the drift and variance of increments are allowed to vary across individuals, but not over time. In our and possible future work this makes it possible to test and exploit the theoretical framework's implications for the relationship between uncertainty and the size and timing of durable goods expenditure.