Erratum: Uncertainty and Consumer Durables Adjustment

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We thank David Laibson, Peter Maxted and Benjamin Moll for pointing out some incorrect statements contained in our paper "Uncertainty and Consumer Durables Adjustment" (*The Review of Economic Studies* 2005, 72, 973–1007).

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. This is because $X^*(t)$ is proportional to $M(t)$. Note that it is also proportional to $C^*(t)$. We discuss below that an alternative way to proceed would be to cast the discussion in terms of the ratio of the durable stock to nondurable consumption. (Some of the statements about M would thus need to refer to C if researchers were to adopt this alternative.)

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.*" follows logically from the incorrect statement above, but it is also incorrect because two-stage budgeting is only applicable along the frictionless path, not when the durable component is history-determined.

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*

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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. The Euler equation between adjustments generally depends on the durable stock, which matters for the marginal utility of (nondurable-only) expenditure. Moreover, the $\{M(t)\}$ process is not the same at adjustment times, when $M(t)$ jumps. The optimal paths for any utility-terms adjustment cost all satisfy the same budget constraint, but their expenditure timing differs.

While the error is regrettable, we note that it is inconsequential for the rest of the paper as long as the log deviation of the actual from the optimal frictionless durable stock is well approximated by a linear Brownian motion, and utility losses by a quadratic in log deviations of the nondurable/durable ratio from the frictionless path.

A less elegant but correct way to justify the linear-quadratic approximation in equations (9)-(11) in the published paper would be to write the utility flow as a deviation from the frictionless path, a reference point that does not need to be solved explicity when studying the trade-off between utility flow losses and costly adjustment. That deviation depends not only on how the nondurable/durable ratio differs from the static optimal ratio, but also on $\ln C$ and $\ln C^*$ levels. Optimality at every point of the path around which the approximation is taken would make it possible to take a second order approximation, and $\ln C$ and $\ln C^*$ should smoothly satisfy Euler equation and approximately follow a linear Brownian motion between times when the optimal policy adjusts $(\ln C - \ln X)$. This is what could make it possible to use our framework in future work, and what is needed for our paper's empirical analysis, which only deals with that ratio and the Euler equation for nondurables.