**Online appendix**

***Online appendix A**: The case of aluminum salt-free deodorants*

As health information increases demand, more fragrance-free detergents can be expected to be available on the market. We illustrate this phenomenon for a product comparable to laundry detergent.

The market for deodorant is differentiated, and elasticity of demand is low (expenses of both products have a low share of income, and both laundry detergent and deodorant are difficult to substitute). Ten years ago, almost no aluminum salt-free deodorants were available in Austria. Following a discussion in the media about health effects (Ehgartner 2013), a high share of consumers are now aware of the health effects of aluminum salts (Linhart et al. 2017). We collected prices of deodorants in the same drugstore chain where we collected prices of detergents. Figure A1 shows the prices of all deodorants available in October 2017. Aluminum salt-free deodorants are available in all price ranges for all types of deodorants.

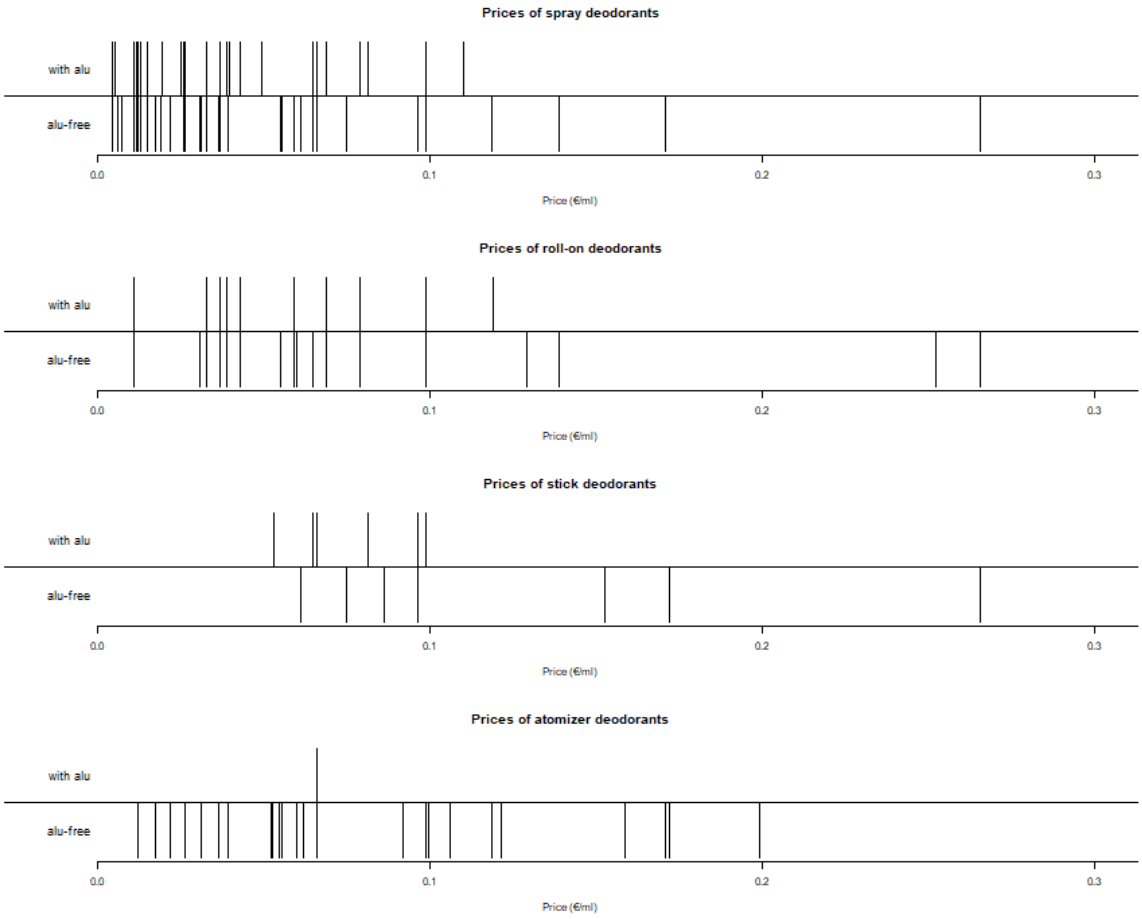


Fig. A1: Prices of deodorants in Euro per milliliter (ml) in a leading central European drugstore in October 2017 with aluminum salts ("with alu") and without aluminum salts ("alu-free").

***Online appendix B**: Utility model*

We describe the detergent choice using a deterministic utility model (Hanemann 1982; Small and Rosen 1981). Let the consumer choose among $N$ fragrance containing detergents $x^f_1$, …, $x^f_N$ and a numeraire $z$. Detergents differ in attributes $q^f_1$, …, $q^f_N$. The consumer chooses $x^f$ and $z$ to maximize utility

$$U = U(x_1^f, \dots, x_N^f, q_1^f, \dots, q_N^f, z) \tag{B.1}$$

subject to a budget constraint

$$p_j^f x_j^f + z = y\,, \tag{B.2}$$

where $p^f_j$ is the price of $x^f_j$ and $y$ is income.

We further assume each household just needs one detergent per time period

$$x_i^f x_j^f = 0 \text{ for all } i \neq j \tag{B.3}$$

and that detergents are purchased only in fixed quantities:

$$x_j^f = \overline{x_j^f} \text{ or } 0 \text{ for } j = 0, \dots, N. \tag{B.4}$$

Now, suppose that the consumer has selected the utility-maximizing detergent $j$. The indirect utility conditional on this choice has been called *conditional indirect utility* and is noted as $V_j$ (Hanemann 1982; Small and Rosen 1981):

$$V_j\left(q_j^f, y - p_j^f \overline{x_j^f}\right) \text{ for } j = i, \dots, N. \tag{B.5}$$

Let us introduce a set of fragrance-free detergents $x^{ff}_1$,…., $x^{ff}_K$. Let detergent $k$ be the utility-maximizing fragrance-free detergent when choosing among the $K$ fragrance-free detergents. The fragrance-free detergent $k$ will be chosen among all detergents (fragrance-free and fragrance-containing) if

$$V_k\left(q_k^{ff}, y - p_k^{ff}\overline{x_k^{ff}}\right) \geq V_j\left(q_j^f, y - p_j^f \overline{x_j^f}\right). \tag{B.6}$$

The compensating variation per unit bought, $d$, is defined as

$$V_k\left(q_k^{ff}, y - p_k^{ff}\overline{x_k^{ff}} - \overline{x_k^{ff}}\, d\right) = V_j\left(q_j^f, y - p_j^f \overline{x_j^f}\right), \tag{7}$$

where $d$ measures the WTP for a quality change from $q^f_j$ to $q^{ff}_k$ for one unit of $\overline{x_k^{ff}}$. The WTP $d$ could be positive or negative.

The fragrance-free detergent will be selected if the WTP for the quality change is non-negative and higher than the price difference between the utility-maximizing fragrance-free and fragrance-containing detergents. This condition can be formulated as

$$d \geq p_k^{ff} - p_j^f \tag{B.8}$$

and

$d \geq 0$.

***Online appendix C:*** *Interval regression results*

| Dependent variable | Current price | | | WTP without information | | | WTP with information | | |
|---|---|---|---|---|---|---|---|---|---|
| | Coef. | St. Error | | Coef. | St. Error | | Est. Coef. | St. Error | |
| Intercept | -0.19 | (0.42) | | 0.06 | (0.47) | | 0.17 | (0.23) | |
| Current Price (€/Ltr) | -0.47 | (0.10) | ** | -0.37 | (0.11) | ** | 0.11 | (0.05) | ** |
| Usually, buy ecolabel | 1.21 | (0.25) | ** | 0.99 | (0.26) | ** | -0.19 | (0.15) | |
| Female | 0.14 | (0.19) | | 0.43 | (0.19) | ** | 0.28 | (0.14) | ** |
| Age (years): | | | | | | | | | |
| 25-40 | 0.13 | (0.30) | | 0.01 | (0.36) | | -0.13 | (0.16) | |
| 41-60 | 0.29 | (0.36) | | 0.07 | (0.40) | | -0.25 | (0.19) | |
| over 61 | -0.31 | (0.62) | | -0.45 | (0.65) | | -0.25 | (0.23) | |
| Education: | | | | | | | | | |
| High school | 0.39 | (0.31) | | 0.30 | (0.33) | | -0.09 | (0.17) | |
| University | 0.53 | (0.37) | | 0.14 | (0.38) | | -0.43 | (0.22) | * |
| > University | 0.99 | (0.50) | ** | 0.67 | (0.44) | | -0.33 | (0.27) | |
| Household: | | | | | | | | | |
| 2 persons | -0.38 | (0.29) | | -0.59 | (0.27) | ** | -0.26 | (0.17) | |
| 3 persons | -0.31 | (0.40) | | -0.58 | (0.41) | | -0.33 | (0.20) | * |
| 4 persons | -0.55 | (0.32) | * | -1.03 | (0.32) | ** | -0.55 | (0.21) | ** |
| >4 persons | -1.30 | (0.56) | ** | -1.65 | (0.59) | ** | -0.52 | (0.28) | * |
| Income (€/month): | | | | | | | | | |
| 1501-3000 | 0.91 | (0.29) | ** | 1.36 | (0.29) | ** | 0.56 | (0.13) | ** |
| 3001-4500 | 0.87 | (0.45) | * | 1.56 | (0.47) | ** | 0.83 | (0.23) | ** |
| >4501 | 1.19 | (0.39) | ** | 2.09 | (0.40) | ** | 1.07 | (0.26) | ** |
| No reply | 1.37 | (0.44) | ** | 1.64 | (0.48) | ** | 0.41 | (0.22) | * |
| Know health effects | 0.30 | (0.22) | | -0.03 | (0.22) | | -0.38 | (0.12) | ** |
| Log(scale) | -0.04 | (0.11) | | 0.00 | (0.12) | | -0.78 | (0.12) | ** |
| No. of obs. | 122 | | | 122 | | | 122 | | |

Note: WTP is the willingness to pay for a change from the currently used detergent to fragrance-free detergent that is otherwise identical. Reference levels: age “18-24 years”; education “< high school”; household “1 person”; income “<1500€/month”.

Table C.1: Interval regression results for where the dependent variable is elicited from the CVM survey.

*Literature for online appendix:*


Ehgartner, Bert. 2013. *Die Akte Aluminium*. Documentary. http://www.imdb.com/title/tt2512030/.

Hanemann, W. Michael. 1982. 'Applied Welfare Analysis with Qualitative Response Models'. Departemtn of Agricultural & Resource Economics, UCB, CUDARE Working Papers. Berkley, USA.

Linhart, Caroline, Heribert Talasz, Evi M. Morandi, Christopher Exley, Herbert H. Lindner, Susanne Taucher, Daniel Egle, Michael Hubalek, Nicole Concin, and Hanno Ulmer. 2017. 'Use of Underarm Cosmetic Products in Relation to Risk of Breast Cancer: A Case-Control Study'. *EBioMedicine* 21 (June):79–85. https://doi.org/10.1016/j.ebiom.2017.06.005.

Small, Kenneth A., and Harvey S. Rosen. 1981. 'Applied Welfare Economics with Discrete Choice Models'. *Econometrica* 49 (1):105–30. https://doi.org/10.2307/1911129.