

Appendix

Table A1. Estimated Change in Log Calories (kcal) of Biscuits Purchased Due to Incentives Across the Household Purchasing Distribution.

Dependent variable:	Biscuits	Biscuits	Biscuits	Biscuits
Log of calories (kcal) purchase	Mean	Median	25 th percentile	75 th Percentile
Log of real price (£) per gram	-0.432*** (0.006)	-0.432*** (0.005)	-0.456*** (0.005)	-0.408*** (0.006)
Price promotion in week	0.315*** (0.005)	0.315*** (0.004)	0.305*** (0.005)	0.325*** (0.004)
Volume promotion in week	0.548*** (0.005)	0.547*** (0.004)	0.627*** (0.005)	0.469*** (0.004)
Shopper age	0.012 (0.008)	0.012 (0.008)	0.012 (0.008)	0.0130 (0.009)
Shopper age squared/100	-0.011* (0.006)	-0.011* (0.007)	-0.011* (0.006)	-0.011 (0.007)
Household size	0.043*** (0.010)	0.043*** (0.011)	0.035*** (0.012)	0.050*** (0.012)
Years in panel	0.021*** (0.005)	0.021*** (0.005)	0.027*** (0.007)	0.015** (0.007)
Weeks since last purchase	-0.001*** (0.000)	-0.001*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)
Year (base 2006): 2007	-0.047*** (0.011)	-0.047*** (0.012)	-0.053*** (0.014)	-0.042*** (0.013)
Year (base 2006): 2008	-0.053*** (0.017)	-0.053*** (0.017)	-0.065*** (0.022)	-0.041** (0.020)
Year (base 2006): 2009	-0.069*** (0.024)	-0.069*** (0.024)	-0.076*** (0.029)	-0.062** (0.028)
Year (base 2006): 2010	-0.114*** (0.032)	-0.114*** (0.031)	-0.128*** (0.038)	-0.101*** (0.037)
Year (base 2006): 2011	-0.158*** (0.039)	-0.158*** (0.041)	-0.176*** (0.045)	-0.140*** (0.047)
Year (base 2006): 2012	-0.180*** (0.047)	-0.180*** (0.049)	-0.206*** (0.054)	-0.154*** (0.055)
Observations	199886	199886	199886	199886
Households	3024	3024	3024	3024
R ²	0.248	-	-	-

Clustered standard errors in parentheses (bootstrapped except for estimates at the mean)

* p < 0.10, ** p < 0.05, *** p < 0.01

Table A2. Estimated Change in Log Calories (kcal) of Crisps Purchased Due to Incentives Across the Household Purchasing Distribution.

Dependent variable:	Crisps	Crisps	Crisps	Crisps
Log of calories (kcal) purchase	Mean	Median	25 th percentile	75 th Percentile
Log of real price (£) per gram	-0.882*** (0.014)	-0.882*** (0.018)	-0.911*** (0.018)	-0.852*** (0.015)
Price promotion in week	0.072*** (0.007)	0.072*** (0.007)	0.056*** (0.008)	0.089*** (0.006)
Volume promotion in week	0.421*** (0.007)	0.421*** (0.007)	0.458*** (0.009)	0.383*** (0.007)
Shopper age	-0.011 (0.009)	-0.011 (0.010)	-0.010 (0.012)	-0.012 (0.009)
Shopper age squared/100	0.003 (0.008)	0.003 (0.010)	-0.002 (0.009)	0.009 (0.009)
Household size	0.033*** (0.013)	0.033** (0.013)	0.032** (0.015)	0.034** (0.014)
Years in panel	0.007 (0.006)	0.007 (0.006)	0.015** (0.006)	-0.002 (0.006)
Weeks since last purchase	-0.002*** (0.000)	-0.002*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)
Year (base 2006): 2007	0.025** (0.012)	0.025** (0.012)	0.033*** (0.013)	0.017 (0.012)
Year (base 2006): 2008	0.081*** (0.018)	0.081*** (0.019)	0.093*** (0.023)	0.069*** (0.018)
Year (base 2006): 2009	0.082*** (0.025)	0.082*** (0.026)	0.087*** (0.033)	0.076*** (0.023)
Year (base 2006): 2010	0.075** (0.032)	0.075** (0.034)	0.081* (0.044)	0.069** (0.029)
Year (base 2006): 2011	0.067* (0.040)	0.067 (0.042)	0.072 (0.052)	0.061* (0.036)
Year (base 2006): 2012	0.060 (0.047)	0.060 (0.051)	0.063 (0.063)	0.057 (0.043)
Observations	135399	135399	135399	135399
Households	3024	3024	3024	3024
R ²	0.302	-	-	-

Clustered standard errors in parentheses (bootstrapped except for estimates at the mean)

* p < 0.10, ** p < 0.05, *** p < 0.01

Table A3. Estimated Change in Log Calories (kcal) of Snacks Purchased Due to Incentives Across the Household Purchasing Distribution.

Dependent variable:	Snacks	Snacks	Snacks	Snacks
Log of calories (kcal) purchase	Mean	Median	25 th percentile	75 th Percentile
Log of real price (£) per gram	-0.638*** (0.010)	-0.639*** (0.010)	-0.708*** (0.011)	-0.569*** (0.011)
Price promotion in week	0.234*** (0.006)	0.234*** (0.007)	0.217*** (0.007)	0.252*** (0.005)
Volume promotion in week	0.575*** (0.006)	0.576*** (0.005)	0.634*** (0.007)	0.517*** (0.005)
Shopper age	-0.008 (0.009)	-0.008 (0.012)	-0.011 (0.013)	-0.006 (0.009)
Shopper age squared/100	0.001 (0.008)	0.001 (0.008)	0.005 (0.010)	-0.003 (0.008)
Household size	0.040*** (0.011)	0.040*** (0.011)	0.038*** (0.014)	0.042*** (0.011)
Years in panel	0.013** (0.006)	0.013** (0.006)	0.025*** (0.007)	0.001 (0.006)
Weeks since last purchase	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001** (0.000)
Year (base 2006): 2007	0.000 (0.013)	-0.000 (0.013)	-0.007 (0.015)	0.001 (0.014)
Year (base 2006): 2008	0.032 (0.021)	0.032 (0.024)	0.016 (0.024)	0.048** (0.023)
Year (base 2006): 2009	0.028 (0.029)	0.028 (0.032)	0.011 (0.035)	0.045 (0.029)
Year (base 2006): 2010	-0.002 (0.037)	-0.002 (0.043)	-0.022 (0.046)	0.019 (0.039)
Year (base 2006): 2011	-0.012 (0.047)	-0.012 (0.054)	-0.049 (0.056)	0.026 (0.047)
Year (base 2006): 2012	-0.003 (0.056)	-0.004 (0.065)	-0.053 (0.068)	0.047 (0.056)
Observations	118654	118654	118654	118654
Households	3024	3024	3024	3024
R ²	0.330	-	-	-

Clustered standard errors in parentheses (bootstrapped except for estimates at the mean)

* p < 0.10, ** p < 0.05, *** p < 0.01

Table A4. Estimated Change in Log Calories (kcal) of Biscuits Purchased Due to Incentives Across the Household Income Distribution.

Dependent variable:	Biscuits	Biscuits	Biscuits
Log of calories (kcal) purchase	Low income	Middle income	High income
Log of real price (£) per gram	-0.418*** (0.008)	-0.436*** (0.009)	-0.453*** (0.011)
Price promotion in week	0.303*** (0.007)	0.330*** (0.007)	0.308*** (0.010)
Volume promotion in week	0.534*** (0.009)	0.552*** (0.007)	0.561*** (0.009)
Shopper age	-0.005 (0.015)	0.035 (0.032)	-0.001 (0.016)
Shopper age squared/100	0.004 (0.011)	-0.022** (0.011)	-0.005 (0.017)
Household size	0.060*** (0.021)	0.044** (0.020)	-0.008 (0.020)
Years in panel	0.019** (0.008)	0.022** (0.008)	0.024** (0.011)
Weeks since last purchase	-0.002*** (0.001)	-0.001 (0.001)	-0.001* (0.001)
Year (base 2006): 2007	-0.055*** (0.018)	-0.042 (0.033)	-0.041* (0.021)
Year (base 2006): 2008	-0.061** (0.028)	-0.044 (0.059)	-0.032 (0.032)
Year (base 2006): 2009	-0.086** (0.041)	-0.071 (0.090)	-0.029 (0.042)
Year (base 2006): 2010	-0.135** (0.054)	-0.120 (0.120)	-0.077 (0.054)
Year (base 2006): 2011	-0.180*** (0.068)	-0.180 (0.150)	-0.102 (0.065)
Year (base 2006): 2012	-0.194** (0.082)	-0.212 (0.180)	-0.135* (0.076)
Observations	78009	79432	42441
Households	1226	1351	754
R ²	0.234	0.252	0.262

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A5. Estimated Change in Log Calories (kcal) of Crisps Purchased Due to Incentives Across the Household Income Distribution.

Dependent variable:	Crisps	Crisps	Crisps
Log of calories (kcal) purchase	Low income	Middle income	High income
Log of real price (£) per gram	-0.873*** (0.024)	-0.874*** (0.022)	-0.894*** (0.028)
Price promotion in week	0.080*** (0.011)	0.067*** (0.010)	0.075*** (0.013)
Volume promotion in week	0.408*** (0.013)	0.424*** (0.010)	0.431*** (0.013)
Shopper age	-0.031 (0.021)	-0.027 (0.022)	0.032* (0.017)
Shopper age squared/100	0.026* (0.015)	0.003 (0.013)	-0.040** (0.017)
Household size	-0.013 (0.031)	0.010 (0.024)	0.080*** (0.024)
Years in panel	0.020** (0.010)	0.004 (0.009)	-0.006 (0.011)
Weeks since last purchase	-0.001*** (0.000)	-0.001*** (0.000)	-0.002*** (0.001)
Year (base 2006): 2007	0.007 (0.030)	0.034 (0.024)	0.062*** (0.021)
Year (base 2006): 2008	0.060 (0.048)	0.095** (0.039)	0.095*** (0.029)
Year (base 2006): 2009	0.037 (0.072)	0.119** (0.057)	0.107*** (0.039)
Year (base 2006): 2010	0.032 (0.096)	0.114 (0.075)	0.110** (0.049)
Year (base 2006): 2011	0.005 (0.120)	0.130 (0.094)	0.101* (0.059)
Year (base 2006): 2012	-0.025 (0.144)	0.142 (0.113)	0.112 (0.070)
Observations	48281	55091	32014
Households	1211	1338	751
R ²	0.296	0.300	0.313

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A6. Estimated Change in Log Calories (kcal) of Snacks Purchased Due to Incentives Across the Household Income Distribution.

Dependent variable:	Snacks	Snacks	Snacks
Log of calories (kcal) purchase	Low income	Middle income	High income
Log of real price (£) per gram	-0.623*** (0.017)	-0.654*** (0.016)	-0.636*** (0.018)
Price promotion in week	0.225*** (0.010)	0.241*** (0.010)	0.236*** (0.011)
Volume promotion in week	0.566*** (0.010)	0.574*** (0.009)	0.586*** (0.011)
Shopper age	-0.006 (0.017)	0.069*** (0.025)	0.017 (0.014)
Shopper age squared/100	0.011 (0.013)	0.002 (0.014)	-0.043*** (0.015)
Household size	0.072*** (0.026)	0.050** (0.020)	-0.007 (0.025)
Years in panel	0.008 (0.011)	0.018* (0.010)	0.011 (0.012)
Weeks since last purchase	-0.001** (0.000)	-0.001** (0.000)	-0.002*** (0.001)
Year (base 2006): 2007	-0.026 (0.024)	-0.072** (0.028)	0.041* (0.022)
Year (base 2006): 2008	0.011 (0.039)	-0.093** (0.047)	0.073** (0.035)
Year (base 2006): 2009	-0.003 (0.055)	-0.191*** (0.068)	0.100** (0.045)
Year (base 2006): 2010	-0.041 (0.074)	-0.301*** (0.091)	0.079 (0.054)
Year (base 2006): 2011	-0.061 (0.092)	-0.396*** (0.115)	0.086 (0.067)
Year (base 2006): 2012	-0.053 (0.111)	-0.482*** (0.139)	0.117 (0.079)
Observations	40190	47868	30578
Households	1212	1342	745
R ²	0.320	0.334	0.337

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A7. Estimated Change in Log Calories (kcal) of Biscuits Purchased Due to Incentives by Household Type

Dependent variable:	Biscuits	Biscuits
Log of calories (kcal) purchase	No children	With children
Log of real price (£) per gram	-0.418*** (0.007)	-0.456*** (0.008)
Price promotion in week	0.295*** (0.006)	0.347*** (0.007)
Volume promotion in week	0.530*** (0.006)	0.573*** (0.008)
Shopper age	-0.018 (0.011)	0.040* (0.021)
Shopper age squared/100	0.013 (0.008)	-0.031 (0.023)
Household size	0.035** (0.015)	0.065*** (0.019)
Years in panel	0.013** (0.006)	0.034*** (0.009)
Weeks since last purchase	-0.001*** (0.000)	-0.002** (0.001)
Year (base 2006): 2007	-0.035** (0.014)	-0.078*** (0.019)
Year (base 2006): 2008	-0.030 (0.022)	-0.106*** (0.032)
Year (base 2006): 2009	-0.031 (0.031)	-0.154*** (0.046)
Year (base 2006): 2010	-0.065 (0.040)	-0.223*** (0.060)
Year (base 2006): 2011	-0.109** (0.050)	-0.265*** (0.074)
Year (base 2006): 2012	-0.135** (0.059)	-0.285*** (0.088)
Observations	127041	72843
Households	1896	1261
R ²	0.235	0.268

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A8. Estimated Change in Log Calories (kcal) of Crisps Purchased Due to Incentives by Household Type

Dependent variable:	Crisps	Crisps
Log of calories (kcal) purchase	No children	With children
Log of real price (£) per gram	-0.826*** (0.018)	-0.972*** (0.023)
Price promotion in week	0.080*** (0.008)	0.063*** (0.011)
Volume promotion in week	0.421*** (0.009)	0.420*** (0.011)
Shopper age	-0.036*** (0.012)	0.021 (0.018)
Shopper age squared/100	0.022** (0.011)	-0.030 (0.020)
Household size	0.014 (0.021)	0.0092 (0.025)
Years in panel	0.006 (0.007)	0.007 (0.009)
Weeks since last purchase	-0.002*** (0.000)	-0.001** (0.001)
Year (base 2006): 2007	0.028* (0.017)	0.020 (0.017)
Year (base 2006): 2008	0.083*** (0.026)	0.083*** (0.028)
Year (base 2006): 2009	0.085** (0.036)	0.086** (0.037)
Year (base 2006): 2010	0.095** (0.047)	0.049 (0.047)
Year (base 2006): 2011	0.078 (0.057)	0.063 (0.057)
Year (base 2006): 2012	0.072 (0.067)	0.056 (0.067)
Observations	85358	50036
Households	1894	1259
R ²	0.289	0.322

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A9. Estimated Change in Log Calories (kcal) of Snacks Purchased Due to Incentives by Household Type

Dependent variable:	Snacks	Snacks
Log of calories (kcal) purchase	No children	With children
Log of real price (£) per gram	-0.633*** (0.014)	-0.646*** (0.014)
Price promotion in week	0.206*** (0.008)	0.264*** (0.008)
Volume promotion in week	0.565*** (0.008)	0.584*** (0.008)
Shopper age	-0.028** (0.012)	0.016 (0.015)
Shopper age squared/100	0.015 (0.011)	-0.020 (0.017)
Household size	0.053*** (0.017)	0.025 (0.023)
Years in panel	0.0001 (0.009)	0.028*** (0.009)
Weeks since last purchase	-0.001*** (0.000)	-0.001** (0.001)
Year (base 2006): 2007	0.030* (0.017)	-0.028* (0.017)
Year (base 2006): 2008	0.083*** (0.028)	-0.012 (0.028)
Year (base 2006): 2009	0.097*** (0.036)	-0.037 (0.039)
Year (base 2006): 2010	0.085* (0.045)	-0.088* (0.050)
Year (base 2006): 2011	0.092* (0.056)	-0.118* (0.064)
Year (base 2006): 2012	0.112* (0.066)	-0.124 (0.076)
Observations	62640	56008
Households	1896	1258
R ²	0.327	0.334

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$