Online Appendix for

"Barbarians at the Store?
Private Equity, Products, and Consumers"

by

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I. Sample Construction

We follow three steps to create the database used in our analyses. First, we identify private equity deals in the period 2005 to 2017. We rely on *Capital IQ* and *Preqin* as deal sources. Second, we link the products in the Nielsen database to their selling firm names, using their universal product codes (UPCs), and then match these firm names with the PE target firm names. Last, we run robustness checks to ensure that our final sample does not omit major deals and to remove misclassified deals. In the following sub-sections, we review each of these steps in detail.

A. Identifying the Universe of Potential Deals

We first collect information on PE deals from Capital IQ, using the following screens:

1. *Merger/Acquisition Features*: Going Private Transaction OR Leveraged Buy Out (LBO) OR Management Buyout OR Secondary LBO
2. *M&A Announced Date*: [1/1/2005-12/31/2017]
3. *Geographic Locations (Target/Issuer)*: United States and Canada (Primary)
4. *Merger/Acquisition Features*: NOT (Acquisition of Minority Stake).

In particular, we rely on the following fields:

- *TargetName*: the target company name used to match Capital IQ data with GS1 data.
- *State*: the target company state also used in the match.
- *DealCompleted*: the deal date used to create the "After" variable in our main analyses.

- *Buyers*: the name of the PE firms involved in the deal.

We complement the deal information from Capital IQ with deals from the Preqin database. We download private equity buyout deals in North America with deal dates from 2005 to 2017. We use the following fields:

- *Firm*: the target company name used to match Capital IQ data with GS1 data.
- *State*: the target company state also used in the match.
- *Deal Date*: the date used to create the "After" variable in our main analyses.
- *Investors*: the name of the PE firms involved in the deal.

B. Finding Database Matches

The most challenging and time-consuming part of our data set construction is to match PE target firms to products in the Nielsen scanner database. We first retrieve from GS1—the organization that assigns UPC codes—the link between UPC numbers and the firms that sell the products associated with these UPCs. We then match these firms to the PE targets from Capital IQ and Preqin. We match across the datasets using *company names* and *States*. In practice, we follow these six steps:

1. We modify the fields *"Target/Issuer"* in Capital IQ and *"CompanyName"* provided by GS1 to remove capital letters.
2. We match these fields (*"Target/Issuer"* and *"CompanyName"*) using the Stata user-written command *"reclink"*. "Reclink" uses a fuzzy matching algorithm that provides a score between 0 and 1 that expresses the goodness of the match. Based on this score

and the state, firms fall into four groups. The next four steps in the process are based on the inspection of each of these groups.

3. *"Perfect match, same state"*: We include in our sample all firms with a matching score equal to one (i.e., the highest score) and same state across the two data sources. We have 517 of these firms. We visually inspect each of these firms to verify that indeed the names exactly match.

4. *"Perfect match, different state"*: If the match score is equal to one, but the matched company is listed from two different states, a research assistant has conducted a web search to verify that the match is correct and that there are not two firms with similar names but from these two different states. In this and the following web searches the research assistant has relied on information on the target firm from CapitalIQ (fields: "Product Description," "Primary Sector," and "Primary Industry") and Nielsen ("product_module_desc" and "brand_descr") to verify the actual match between the two firms. We start with 178 of these firms and, after the manual checking process, we add 98 of these firms to our sample.

5. *"Good match, same state"*: For those firms that have a matched score between 0.90 and 1 from the same state, we conduct a web search as in the previous case. We identify 1,535 of these firms. After the clean-up process, we add 794 of these firms to our sample.

6. *"Good match, different state"*: For those firms that have a matched score between 0.99[17] and 1 but with different state information, we conduct our web search. We manually

[17] We select a cut-off higher than the one chosen for the previous category to keep the number of firms that we need to manually inspect manageable.

check 1,117 firms in this category. We then include 179 of these firms in our sample.

At the end of this process, we have 1,588 matched firms between Capital IQ and GS1. Note that we follow this same process to match firms that are the target of M&A deals from Capital IQ to firms in GS1. We use these M&A targets in Table A1 and A8.

We then repeat steps #1 to #6 for the PE deals in the Prequin database. The relevant variables for the match in Prequin are *"Firm"* and *"State."* At the end of this process we have 2,757 matched firms from Prequin. The breakdown of matched firms across the four groups is as follows: 663 *"Perfect match, same state,"* 256 *"Perfect match, different state,"* 1,479 *"Good match, same state,"* and 359 *"Good match, different state."*

When we consolidate the list of target firms across Capital IQ and Prequin, we obtain 3,563 unique firms. We then merge these firms with Nielsen sales data, using the UPCs that are reported in Nielsen. We are able to match 908 firms. The many firms that drop out sell products with UPCs but not in supermarkets, drug stores, or mass merchandisers.

C. Additional Robustness Checks

We run two additional analyses to complement and verify this list of 908 deals.

If companies are recorded under completely different names in Capital IQ (or Preqin) vs. GS1, we would not be able to match them. To address this concern, we first collect from Capital IQ the largest deals (i.e., top decile by deal size) for each year of our analysis (2007 to 2015). Then, we inspect each of these deals focusing on their "Product Description," "Primary Sector," and "Primary Industry." For the deals that appear to be in the consumer product space, we do a web search to retrieve their most popular brands, potential aliases, and names of subsidiaries or parent companies. Last, we try to match any of the above with the GS1 database following the process previously described. This procedure allows us to

identify 24 companies that were missing from our sample. The major reason for missing these deals was that firms were reported in Capital IQ/Prequin with different names compared to GS1. For example, the target firm Yankee Holding Corp. was recorded in GS1 as The Yankee Candle Company, Inc.

The initial screenings to retrieve PE deals from Capital IQ and Preqin generate a comprehensive list of 932, meant to capture any potential private equity deal. At this point, given that we have Nielsen sales data between 2006 and 2016 and that we require firms to have at least one year of sales data before and after the deal, we drop deals that closed before 2007 or after 2015. We also discovered that some target firms did not have any of their UPCs record sales within one year surrounding the deal closing date. We drop these firms. Next, we do a deep dive into the remaining deals to verify that these are PE deals as commonly defined in the literature. We base our investigation on the deal description and web-based searches. We end up eliminating: i) deals that do not actually result in a change in control; ii) deals where the buyer is a person as opposed to a private equity firm; and iii) deals where the PE targeted firm was mistakenly matched with a similarly named firm in GS1/Nielsen. We also remove add-on deals where the PE target company, not the PE firm, is the buyer. Our final sample consists of 236 firms.

II. Sample Representativeness

How representative are the 236 deals in our sample of typical PE transactions? To address this question, we compare across different samples the deal features available from Capital IQ. We report these results in Table A1. In our sample period there are 17,566 total deals in Capital IQ. The screening criteria to select this sample are reported in subsection I.A.

We classify 4,811 of these deals as "Consumer Goods", if their primary sector description is "Consumer Discretionary" or "Consumer Staples". The "Capital IQ–GS1" sample includes those deals whose target firms can be matched to the GS1 database. Details on the matching process are reported in subsection I.B. In this sample, we have 1,588 target firms accounting for 1,839 deals. One target firm could be involved in multiple deals because it is the target of secondary PE buyouts. The "Capital IQ-GS1-Nielsen" sample includes those deals from Capital IQ/ GS1 whose targets have sales data in Nielsen. We identify 536 target firms, accounting for 634 deals. After our manual screening, we are left with a final sample of 216 target firms. Each of these firms appears only in one deal. This sample is different from our final sample of 236 deals, because it only includes deals from Capital IQ. Of these 216 firms, 13 targets were public before the deal. The remaining 203 were private firms. The "M&A Sample" includes firms that were target of M&A deals in our sample period. We collect this deals from Capital IQ and we match them to GS1/ Nielsen data, following the same procedure reported in subsection I.B.

We find that our deals appear to be larger in size and involve older firms compared to the average PE deal in CapitalIQ and, even more so, compared to deals in consumer products. Implied equity valuations and total cash payments are also larger for our sample. There is no significant difference in term of number of PE investors involved. With the caveat that the deal information are not very heavily populated in Capital IQ, our sample seems to represent larger PE deals, between the 75th and the 90th percentile of the overall PE deal size distribution.

Table A1. Deal Characteristics and Sample Selection Process

This table shows descriptive statistics of PE deals across different samples from Capital IQ. Our final sample here includes 216 firms—and not 236 as in the paper—because we include only firms from Capital IQ. We describe these different samples in subsection II. *"Deal Value"* is defined as the total transaction value (in US $ Million). *"Implied Equity Value"* and *"Total Cash"* are the equity value and the total cash payment of the deal as reported in Capital IQ. *"Target Age"* is the age, in years, of the target firm when the deal was completed. *"Buyer Number"* is the number of PE firms involved in each deal.

Variable	Stat.	Capital IQ (17,566)	Consumer Goods (4,811)	Capital IQ-GS1 (1,839)	CIQ/GS1 Nielsen (634)	Final Sample (216)	Final Public (13)	Final Private (203)	M&A Sample (126)
	mean	383.9	325.6	573.3	659.5	865.5	1,870.9	521.6	472.9
	sd	1,871.9	1,625.0	1,730.3	1,467.4	1,453.7	1,730.3	1,186.6	1,816.6
Deal Value	p25	2.4	2.0	9.9	12.6	51.0	702.6	22.0	7.7
	p50	20.0	14.2	78.8	112.6	310.0	1,325.3	149.0	25.5
	p75	161.9	110.1	380.2	415.0	1,009.7	2,239.0	420.0	140.0
	N	4,170	1,136	372	122	51	13	38	49
	mean	321.7	276.4	501.6	595.6	823.2	1,510.1	535.2	491.5
	sd	1,463.1	1,300.2	1,440.5	1,344.1	1,374.2	1,318.2	1,312.1	1,586.9
Implied Equity Value	p25	1.9	1.6	8.0	8.5	52.9	476.1	22.0	8.3
	p50	16.0	10.0	73.0	90.0	280.0	1,293.0	100.0	37.0
	p75	139.0	87.5	397.0	420.0	963.9	1,855.2	410.0	173.7
	N	3,814	1,041	335	111	44	13	31	49
	mean	319.3	273.1	494.1	570.3	771.4	1,510.1	497.1	461.4
	sd	1,433.2	1,281.4	1,419.0	1,309.9	1,323.9	1,318.2	1,234.3	1,440.8
Total Cash	p25	2.0	1.6	9.5	9.5	50.6	476.1	20.0	5.7
	p50	17.7	11.8	75.0	90.0	205.7	1,293.0	96.5	34.5
	p75	140.0	94.3	327.0	415.0	963.9	1,855.2	410.0	173.7
	N	3,875	1,051	347	115	48	13	35	46
	mean	29.4	34.5	37.3	40.4	43.1	64.9	41.7	33.6
	sd	29.3	33.3	33.3	35.8	40.7	39.5	40.5	28.4
Target Age	p25	10	11	15	15	15	33	14	14
	p50	21	25	28	31	31	58	30	23
	p75	38	46	50	57	59	87	57	46
	N	11,146	3,050	1,396	495	205	12	193	114
	mean	1.2	1.2	1.2	1.3	1.3	1.4	1.3	1.4
	sd	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.5
Buyer Number	p25	1	1	1	1	1	1	1	1
	p50	1	1	1	1	1	1	1	1
	p75	1	1	1	1	1	2	1	2
	N	9,057	2,115	1,191	430	208	12	196	125

Table A2. List of Largest Product Categories

This table shows the largest product categories by monthly sales in the Nielsen dataset, together with the average number of products in that category nationwide.

Product Category	Monthly Sales ($)	Av. N. of Products
CIGARETTES	429,254,112	930
SOFT DRINKS - CARBONATED	269,718,144	2,076
CEREAL - READY TO EAT	227,483,344	535
SOFT DRINKS - LOW CALORIE	221,177,712	804
LIGHT BEER (LOW CALORIE/ALCOHOL)	207,607,984	280
WINE-DOMESTIC DRY TABLE	205,774,640	5,258
BEER	176,359,296	1,433
WATER-BOTTLED	175,339,872	1,347
TOILET TISSUE	171,534,576	152
DETERGENTS - HEAVY DUTY - LIQUID	165,413,312	328

Table A3. List of Most Common Private Equity Partners

This table shows the most frequent private equity partners that are involved in the 236 private equity deals in our sample.

General Partner Name	N. of Deals
Sun Capital Partners Inc	9
Encore Consumer Capital	6
Arbor Private Investment Company	5
Wind Point Partners	4
Brazos Private Equity Partners LLC	4
Mason Wells Inc	4
The Riverside Company	4
Brynwood Partners	4
Vestar Capital Partners Inc	4

Table A4. Largest Private Equity Deals

This table shows the largest private equity deals in our sample, sorted by the average monthly sales in the Nielsen dataset.The deal value, from Capital IQ, includes the value of divisions and subsidiaries that do not sell to supermarkets or mass merchandisers.

Target	Deal Date	Monthly Sales ($)	Deal Value ($Mil)
Del Monte Foods Inc.	8-Mar-11	59,519,200	5,482
The Nature's Bounty Co.	1-Oct-10	17,472,164	4,078
Pabst Brewing Company	7-Jun-10	13,083,578	250
Evenflo Company, Inc.	8-Feb-07	9,514,464	260
Bradshaw International, Inc.	16-Oct-08	9,313,272	N/A
The Sun Products Corporation	30-Apr-07	8,821,161	1,250
Peet's Coffee And Tea, Inc.	29-Oct-12	7,129,344	1,010
Matrixx Initiatives, Inc.	17-Feb-11	5,734,518	82
Parfums De Coeur Ltd.	5-Sep-12	5,591,422	N/A
Armored Autogroup Inc.	5-Nov-10	4,919,370	755

Table A5. Private Equity Deal Selection

This table presents OLS coefficient estimates from regressing a product category selection dummy, a firm selection dummy, and a product selection dummy on explanatory variables to determine the private equity interest in specific product categories, firms, or products. The sample is restricted to months when a private equity deal occurred. The industry selection dummy is equal to one if there was a private equity deal in that product category in that month. Firm selection dummy is equal to one if the firm was acquired by a private equity company in that month. Product selection dummy is equal to one if the product is acquired by a private equity company in that month. We describe how we construct the *"High-Income Category"* indicator and how we compute the *"Herfindal Index"* in section VII.D of the paper. The unit of analysis is unique at the product-category-month for column 1, firm-month for column 2, and product-month for column 3. Standard errors are double-clustered at the firm and time. $^{*}p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

	Category Selection	Firm Selection	Product Selection
High-Income Category	0.005***		
	(4.86)		
Herfindal Index	-0.023***		
	(-11.41)		
Price Av. (log)	-0.003***	-0.000	-0.001***
	(-6.96)	(-0.61)	(-21.62)
Sales (log)	0.002***	0.001***	0.000***
	(9.00)	(3.06)	(24.10)
Growth N. Products	-0.002	-0.000	
	(-0.82)	(-1.01)	
Growth Sales	0.002	-0.000	-0.000***
	(1.63)	(-1.55)	(-4.51)
Growth Price Av.	-0.002	0.001*	0.001***
	(-0.66)	(1.75)	(9.32)
Adj. R-Square	0.049	0.019	0.083
N. Obs.	130,053	324,630	2,695,569
Date FE	Yes	No	No
Category-Date FE	No	Yes	Yes

Table A6. Summary Statistics of Matching Procedure

This table presents the summary statistics (Mean and Median) of firm-level characteristics for treated and matched control firms at the time of the private equity buyout. *$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

	Treated		Matched Control		Difference	
	Mean	Median	Mean	Median	Diff	t-stat
Matching Variables						
Monthly Sales	1,036,508.44	55,065.39	902,937.81	59,015.72	-133,570.63	(-0.36)
Monthly Sales Growth	27.31	-0.02	4.46	-0.00	-22.85	(-1.23)
N. Products	36.58	11.50	35.12	11.00	-1.47	(-0.23)
N. Stores	5,298.33	1,408.50	5,277.92	1,494.00	-20.41	(-0.03)
Non-Matching Variables						
Monthly Units Sold	396,994.41	12,114.79	332,081.96	12,190.14	-64,912.45	(-0.33)
Average Price	7.85	4.76	7.27	4.31	-0.58	(-0.52)
N. Categories	7.81	3.00	7.71	3.00	-0.09	(-0.07)
N. Chains	24.61	14.00	24.47	14.00	-0.14	(-0.06)
N. 3-digit ZIP Codes	383.67	313.00	378.01	308.00	-5.66	(-0.18)
N. Counties	106.76	117.50	107.84	114.00	1.08	(0.16)
N. States	30.18	36.00	29.02	34.50	-1.16	(-0.66)
N. DMAs	106.15	100.50	103.89	100.00	-2.26	(-0.30)

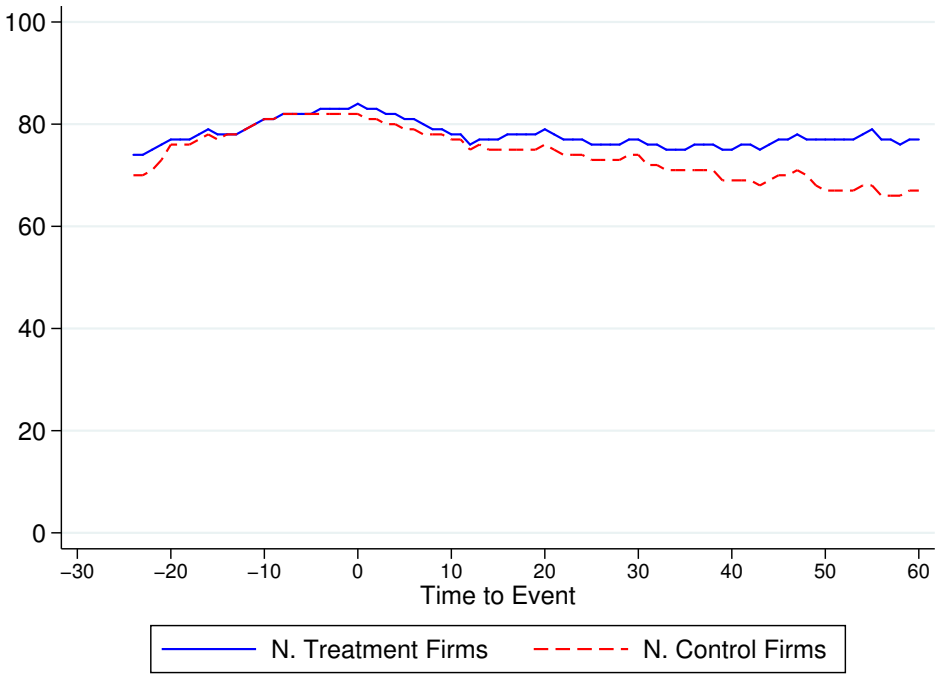
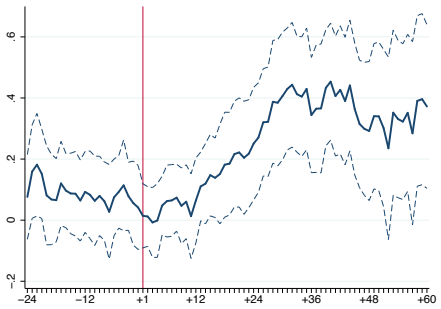
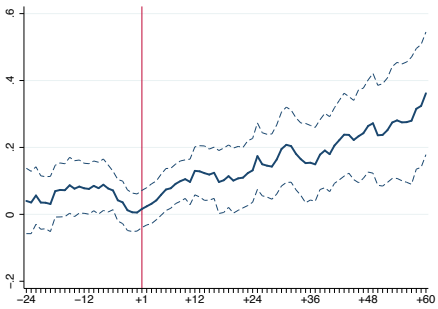


Figure A1. N. of Treated and Control Firms

The figure plot the number of treated and control firms in the sample over time relative to the deal close date, only for deal closed in 2008-2011. We limit our analysis to the years 2008 to 2011 to ensure that we have the five full years of data available for all firms (our sample ends in 2015).

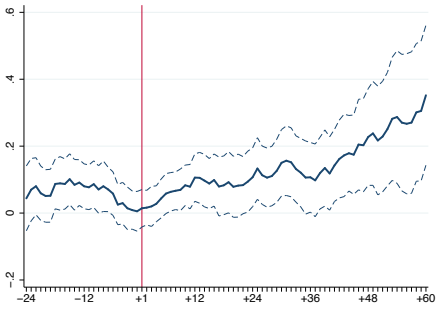


(a) N. of Counties - Within Firm



(b) N. of Counties - Within Firm-Category

(c) N. of Market Areas - Within Firm



(d) N. of Market Areas - Within Firm-Category

(e) N. of States - Within Firm

(f) N. of States - Within Firm-Category

Figure A2. Time Trend of Product Availability

These graphs plot the coefficient estimates of regressions following equation 2, where the dependent variables are number of counties for panels (a) and (b), the number of designated market areas for panel (c) and (d), and the number of states for panel (e) and (f). The unit of analysis is a firm-month-cohort for panels (a),(c), and (e), and a firm-category-month-cohort for panels (b), (d), and (f). The coefficient estimate at time t represents the difference in the outcome variables between PE firms/firm-categories and matched non-PE firms/firm categories t months away from the date of closing of the private equity deal. The estimation period goes from -24 months to +60 months around the date of the closing of the private equity deal. The closing date is indicated by the vertical line. The dotted lines show the 90% confidence interval.

Table A7. Private Equity and Consumer Goods - Annual Coefficients

This table presents OLS coefficient estimates from regressing log of sales, log of average monthly prices, log of units sold, number of products, number of stores, number of 3-digit ZIP, and number of categories, on dummies equal to one if the observation month is includes in the year at distance t from the deal close year for firms (Panel A) or firm-categories (Panel B) that underwent a buyout during our sample period. We use the Abadie and Imbens (2006) distance metric to pair each treated unit with the closest untreated unit. We match on sales, unique UPCs sold, and store locations, all during the most recent pre-buyout month, and growth in monthly sales from the past 12 months to the most recent pre-buyout month. The unit of analysis is unique at the firm-month-cohort level in panel A, and at the firm-product category-month-cohort level in panel B. The estimation period goes from -24 months to +60 months around the private equity deal closing date. The regressions are estimated using the fixed point iteration procedure implemented by Correia (2014). Standard errors are in parentheses and are double-clustered by firm and month. $^{*}p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel A: Within Firm

	Sales	Average Price	Units Sold	N. Products	N. Stores	N. Chains	N. ZIP	N. Categories
Year -2	-0.091	-0.037*	-0.059	-0.019	0.038	-0.007	0.064	-0.027
	(-0.90)	(-1.79)	(-0.64)	(-0.60)	(0.54)	(-0.22)	(1.19)	(-1.12)
Year -1	-0.106	-0.017	-0.080	-0.004	-0.017	0.012	0.016	-0.007
	(-1.35)	(-1.25)	(-1.13)	(-0.21)	(-0.39)	(0.69)	(0.44)	(-0.51)
Year +1	0.211**	0.023	0.196**	0.045**	0.170***	0.061***	0.128***	0.028*
	(2.40)	(1.44)	(2.55)	(2.19)	(3.35)	(3.12)	(3.32)	(1.88)
Year +2	0.492***	0.014	0.454***	0.112***	0.343***	0.141***	0.264***	0.039*
	(3.63)	(0.66)	(3.72)	(3.17)	(4.22)	(4.94)	(4.37)	(1.72)
Year +3	0.519***	0.046**	0.460***	0.169***	0.382***	0.185***	0.273***	0.052*
	(3.23)	(2.03)	(3.01)	(3.58)	(3.58)	(5.26)	(3.57)	(1.74)
Year +4	0.548***	0.090***	0.523***	0.250***	0.417***	0.219***	0.267***	0.100***
	(2.87)	(3.64)	(3.00)	(4.50)	(3.27)	(4.89)	(2.88)	(2.78)
Adj. R-Square	0.876	0.933	0.894	0.943	0.909	0.952	0.900	0.950
N. Obs.	31,596	31,596	31,596	31,596	31,596	31,596	31,596	31,596
Firm-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: Within Firm-Category

	Sales	Average Price	Units Sold	N. Products	N. Stores	N. Chains	N. ZIP
Year -2	-0.040	-0.025***	0.002	0.014	0.058	0.044**	0.057*
	(-0.77)	(-2.74)	(0.05)	(1.26)	(1.42)	(2.44)	(1.88)
Year -1	-0.044	-0.020***	-0.024	-0.003	-0.023	0.003	-0.007
	(-1.36)	(-4.22)	(-0.79)	(-0.47)	(-0.93)	(0.30)	(-0.39)
Year +1	0.146***	0.003	0.139***	0.023***	0.126***	0.061***	0.123***
	(3.76)	(0.51)	(3.91)	(2.97)	(4.06)	(5.31)	(4.89)
Year +2	0.330***	0.021**	0.295***	0.051***	0.251***	0.119***	0.199***
	(5.40)	(2.14)	(5.55)	(4.08)	(5.49)	(6.49)	(5.67)
Year +3	0.252***	0.023*	0.229***	0.047**	0.235***	0.133***	0.169***
	(2.84)	(1.89)	(2.90)	(2.55)	(3.57)	(5.18)	(3.49)
Year +4	0.267**	0.022	0.243**	0.055**	0.221**	0.128***	0.167**
	(2.21)	(1.44)	(2.26)	(2.15)	(2.56)	(3.73)	(2.56)
Adj. R-Square	0.868	0.918	0.884	0.920	0.889	0.921	0.883
N. Obs.	224,454	224,454	224,454	224,454	224,454	224,454	224,454
Firm-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(a) Same Retail Chain

(b) Same Designated Market Area

Figure A3. Price Response of Competitors - By Control Type

These figures plot the coefficient estimates of regressions following equation 2, where the dependent variables are product monthly prices. The coefficient estimate at time t represents the difference in the outcome variables between treated products and matched control products, t months away from the date of closing of the private equity deal. This sample only includes products whose firms did not go through a private equity deal. Each cohort is made of a treated product that is sold in a store-category where a private equity deal occurred, and the best match (with the same UPC) but selected from ten random stores where there is no private equity competitor. In Panel (a) we randomly select the ten stores within the same retail chain of the treated product. In Panel (b) we randomly choose the ten stores within the same Designated Market Area of the treated product. The estimation period goes from -24 months to +60 months around the date of the closing of the private equity deal. The closing date is indicated by the vertical line. The dotted lines show the 90% confidence interval. Regressions are estimated using the fixed point iteration procedure implemented by Correia (2014).

Table A8. The Effects of M&A Deals on Consumer Product Firms

This table presents OLS coefficient estimates from regressing, in Panel A, logs of sales (Column 1), average monthly prices (Column 2), and units sold (Column 3) on *After*, a dummy equal to one for the post-M&A months for firms that underwent a M&A during our sample period. In Panel B we focus on product innovation. In Panel C we study product availability. All the outcome variables are either indicator variables or in logs. Each cohort is a pair of treated-untreated firms where the treated unit is matched to the untreated unit with the closest distance at the time of the M&A deal based on sales, unique UPCs sold, and store locations, all during the most recent pre-M&A month, and growth in monthly sales from the past 12 months to the most recent pre-M&A month. For the matching, we use the Abadie and Imbens (2006) distance metric. The unit of analysis is unique at the firm-month-cohort level. The estimation period goes from -24 months to +60 months around the date of the closing of the M&A deal. The regressions are estimated using the fixed point iteration procedure implemented by Correia (2014). Standard errors are double-clustered by firm and month. $^{*}p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel A: Sales, Pricing, and Units

	Sales	Average Prices	Number of Units Sold
After	-0.167	-0.001	-0.158
	(-0.86)	(-0.04)	(-0.91)
Adj. R-Square	0.852	0.955	0.867
N. Obs.	13,340	13,340	13,340
Firm-Cohort FE	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes

Panel B: Product Innovation

	Number of Products	New Products	Discont. Products	Number of Categories
After	-0.025	0.099	0.056	-0.027
	(-0.49)	(1.21)	(1.44)	(-0.82)
Adj. R-Square	0.916	0.381	0.716	0.927
N. Obs.	13,340	13,340	13,340	13,340
Firm-Cohort FE	Yes	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes	Yes

Panel C. Product Availability

	N. Stores	N. Chains	N. ZIP Codes
After	-0.172	-0.133**	-0.144
	(-1.39)	(-2.34)	(-1.56)
Adj. R-Square	0.895	0.924	0.890
N. Obs.	13,340	13,340	13,340
Firm-Cohort FE	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes

Table A9. Private Equity, Sales, and Prices - Excluding Acquisitive Firms

This table presents OLS coefficient estimates from regressing logs of sales (Column 1), average monthly prices (Column 2), and units sold (Column 3) on *After*, a dummy equal to one for the post-buyout months for firms (Panel A) or firm-categories (Panel B) that underwent a buyout during our sample period. The sample excludes firms in the top decile of acquisitiveness. Each cohort is a pair of treated-untreated firms (panel A) or firm-categories (panel B) where the treated unit is matched to the untreated unit with the closest distance at the time of the private equity deal based on sales, unique UPCs sold, and store locations, all during the most recent pre-buyout month, and growth in monthly sales from the past 12 months to the most recent pre-buyout month. For the match, we use the Abadie and Imbens (2006) distance metric. The unit of analysis is unique at the firm-month-cohort level in panel A and at the firm-product category-month-cohort level in panel B. The estimation period goes from -24 months to +60 months around the date of the closing of the private equity deal. The regressions are estimated using the fixed point iteration procedure implemented by Correia (2014). Standard errors are double-clustered by firm and month. $^{*}p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel A: Within Firm

	Sales	Average Prices	Number of Units Sold
After	0.450***	0.058***	0.387***
	(3.81)	(2.98)	(3.58)
Adj. R-Square	0.873	0.932	0.891
N. Obs.	30,016	30,016	30,016
Firm-Cohort FE	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes

Panel B: Within Firm-Category

	Sales	Average Prices	Number of Units Sold
After	0.188***	0.036***	0.145**
	(3.06)	(3.90)	(2.59)
Adj. R-Square	0.868	0.916	0.884
N. Obs.	206,730	206,730	206,730
Firm-Cat.-Cohort FE	Yes	Yes	Yes
Date-Cat.-Cohort FE	Yes	Yes	Yes

Panel C: Within Product-Store

	Sales	Price	Number of Units Sold
After	0.01944	0.00733*	0.00542
	(0.95)	(1.67)	(0.32)
Adj. R-Square	0.885	0.785	0.675
N. Obs.	718,937,916	718,937,916	718,937,916
UPC-Store-Cohort FE	Yes	Yes	Yes
Date-Store-Cohort FE	Yes	Yes	Yes

Table A10. Private Equity and Product Innovation - Excluding Acquisitive Firms

This table presents OLS coefficient estimates from regressing the log of number of products (Column 1), a new product dummy (Column 2), a discontinued product dummy (Column 3), and the log of number of product categories (Column 4) on *After*, a dummy equal to one for the post-buyout months for firms (Panel A) or firm-categories (Panel B) that underwent a buyout during our sample period. The sample excludes firms in the top decile of acquisitiveness. We measure the number of products by counting products that a firm or firm-category has on the shelves in at least one store in that month. The New Products variable is the number of products introduced by the firm or firm-category in that month. The Discontinued Products variable is the number of discontinued products by the firm or firm-category in that month. We measure number of categories by counting the categories in which a firm has at least one product on store shelves in that month. Each cohort is a pair of treated-untreated firms (panel A) or firm-categories (panel B) where the treated unit is matched to the untreated unit with the closest distance at the time of the private equity deal based on sales, unique UPCs sold, and store locations, all during the most recent pre-buyout month, and growth in monthly sales from the past 12 months to the most recent pre-buyout month. For the match, we use the Abadie and Imbens (2006) distance metric. The unit of analysis is unique at the firm-month-cohort level in panel A and at the firm-product category-month-cohort level in panel B. The estimation period goes from -24 months to +60 months around the closing date of the private equity deal. The regressions are estimated using the fixed point iteration procedure implemented by Correia (2014). Standard errors are double-clustered by firm and month. $^{*}p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel A: Within Firm

	Number of Products	New Products	Discont. Products	Number of Categories
After	0.107***	0.404**	0.221	0.053**
	(3.08)	(2.00)	(1.51)	(2.18)
Adj. R-Square	0.940	0.515	0.734	0.948
N. Obs.	30,016	30,016	30,016	30,016
Firm-Cohort FE	Yes	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes	Yes

Panel B: Within Firm-Category

	Number of Products	New Products	Discont. Products
After	0.025**	0.053**	0.044**
	(2.00)	(2.48)	(2.19)
Adj. R-Square	0.918	0.534	0.731
N. Obs.	206,730	206,730	206,730
Firm-Cat.-Cohort FE	Yes	Yes	Yes
Date-Cat.Cohort FE	Yes	Yes	Yes

Table A11. Private Equity and Product Availability - Excluding Acquisitive Firms

This table presents OLS coefficient estimates from regressing the logs of number of stores (Column 1), number of retail chains(Column 2), and number of 3-digit ZIP codes (Column 3) where a firm or firm-category is present on *After*, a dummy equal to one for the post-buyout months for firms (Panel A) or firm-categories (Panel B) that underwent a buyout during our sample period. The sample excludes firms in the top decile of acquisitiveness. Each cohort is a pair of treated-untreated firms (Panel A) or firm-categories (Panel B) where the treated unit is matched to the untreated unit with the closest distance at the time of the private equity deal based on sales, unique UPCs sold, and store locations, all during the most recent pre-buyout month, and growth in monthly sales from the past 12 months to the most recent pre-buyout month. For the match, we use the Abadie and Imbens (2006) distance metric. The unit of analysis is unique at the firm-month-cohort level in panel A and the firm-product category-month-cohort level in panel B. The estimation period goes from -24 months to +60 months around the closing date of the private equity deal. The regressions are estimated using the fixed point iteration procedure implemented by Correia (2014). Standard errors are double-clustered by firm and month. $^{*}p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Panel A. Within Firm

	N. Stores	N. Chains	N. ZIP Codes
After	0.254***	0.113***	0.152***
	(3.36)	(3.63)	(2.79)
Adj. R-Square	0.906	0.949	0.898
N. Obs.	30,016	30,016	30,016
Firm-Cohort FE	Yes	Yes	Yes
Date-Cohort FE	Yes	Yes	Yes

Panel B. Within Firm-Category

	N. Stores	N. Chains	N. ZIP Codes
After	0.116**	0.048***	0.089**
	(2.50)	(2.62)	(2.59)
Adj. R-Square	0.890	0.921	0.883
N. Obs.	206,730	206,730	206,730
Firm-Category-Cohort FE	Yes	Yes	Yes
Date-Category-Cohort FE	Yes	Yes	Yes