

Appendix to: Getting Smart About Phones: New Price Indexes and the Allocation of Spending Between Devices and Services Plans in Personal Consumption Expenditures

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Table A1
Selected Adjacent-Quarter Regressions

Variable	2010Q1 - 2010Q2			2017Q4 - 2018Q1		
	Coefficient	Std. Error	T Statistic	Coefficient	Std. Error	T Statistic
Constant	6.886***	(1.417)	4.860	-14.21***	(5.298)	-2.681
Second Quarter	-0.123***	(0.0432)	-2.842	-0.00347	(0.0116)	-0.300
Performance Variables						
Storage	0.0464***	(0.0150)	3.094	0.145***	(0.00805)	17.97
Camera Resolution	0.528***	(0.0695)	7.605	0.367***	(0.0507)	7.226
Processor Speed	-0.209	(0.218)	-0.962	2.101***	(0.0755)	27.84
Screen Size	-0.0978	(0.199)	-0.492	1.360***	(0.0713)	19.08
Manufacturer						
Manufacturer # 5				0.450	(5.279)	0.0852
Manufacturer # 6				0.136	(0.198)	0.685
Manufacturer # 7	-0.0791	(0.0688)	-1.150	-0.239	(0.694)	-0.344
Manufacturer # 8				-0.249	(0.166)	-1.501
Manufacturer # 9				-0.189	(1.717)	-0.110
Manufacturer # 11				-0.187	(0.214)	-0.873
Manufacturer # 12	-0.416*	(0.234)	-1.782			
Manufacturer # 14				0.238	(0.187)	1.274
Manufacturer # 15	-0.462	(0.475)	-0.972	0.927	(1.709)	0.542
Manufacturer # 16	-0.255**	(0.0984)	-2.586	0.209	(0.196)	1.067
Manufacturer # 17	-0.333*	(0.176)	-1.896	-0.598***	(0.227)	-2.633
Manufacturer # 18				0.867***	(0.159)	5.449
Manufacturer # 19	-0.277**	(0.123)	-2.247	0.202	(0.142)	1.423
Manufacturer # 23	-0.684***	(0.0861)	-7.941	0.294**	(0.143)	2.048
Manufacturer # 25	-0.352	(2.028)	-0.174			

Table A1 continued
Example Adjacent Quarter Regressions

Variable	2010Q1 - 2010Q2			2017Q4 - 2018Q1		
	Coefficient	Std. Error	T Statistic	Coefficient	Std. Error	T Statistic
Manufacturer # 28	0.00463	(0.335)	0.0138			
Manufacturer # 30				0.204	(0.270)	0.756
Manufacturer # 31				0.196	(0.385)	0.508
Manufacturer # 33	-0.347***	(0.0790)	-4.388	0.360**	(0.143)	2.522
Manufacturer # 36				-0.176	(0.202)	-0.873
Manufacturer # 37	-0.251	(0.271)	-0.929			
Manufacturer # 39				-0.144	(0.152)	-0.946
Manufacturer # 40	-0.324***	(0.0879)	-3.685			
Manufacturer # 43				-0.155	(0.146)	-1.063
Operating Systems						
OS Version # 2	0.297***	(0.108)	2.735			
OS Version # 3	0.366***	(0.0559)	6.545			
OS Version # 4	-0.0648	(0.0678)	-0.955			
OS Version # 11				0.255	(5.283)	0.0482
OS Version # 14				-0.182	(5.277)	-0.0345
OS Version # 15				-0.293	(5.277)	-0.0555
OS Version # 16				-0.162	(5.277)	-0.0307
OS Version # 17				-0.225	(5.277)	-0.0427
OS Version # 18				-0.00140	(5.331)	-0.000262
OS Version # 21	0.198**	(0.0966)	2.050			
OS Version # 22	0.238***	(0.0473)	5.040			
OS Version # 23	0.121**	(0.0531)	2.273			
OS Version # 24	0.0938**	(0.0363)	2.582			

Table A1 continued
Example Adjacent Quarter Regressions

Variable	2010Q1 - 2010Q2			2017Q4 - 2018Q1		
	Coefficient	Std. Error	T Statistic	Coefficient	Std. Error	
OS Version # 29	-0.178	(2.135)	-0.0832			
OS Version # 30	0.162	(0.391)	0.415			
OS Version # 31	0.353	(0.540)	0.654			
OS Version # 32	-0.186	(2.034)	-0.0915			
OS Version # 33	-0.270	(2.029)	-0.133			
OS Version # 34	-0.361	(2.025)	-0.178			
OS Version # 38				-0.788	(5.429)	-0.145
OS Version # 39	0.214	(1.974)	0.108			
OS Version # 40	0.0213	(0.0725)	0.293			
OS Version # 41	-0.0381	(0.0705)	-0.540			
OS Version # 46				-0.274***	(0.0464)	-5.902
OS Version # 47				-0.124***	(0.0392)	-3.153
OS Version # 48	0.123	(0.0902)	1.363			
OS Version # 49	0.145*	(0.0738)	1.960			
OS Version # 56	-0.363	(0.329)	-1.103			
Telecommunications Generation						
2.5G	-0.333***	(0.110)	-3.037			
3G	-0.0740	(0.107)	-0.690			
4G	-0.0982	(0.150)	-0.653	0.137	(0.221)	0.619
Input Method						
QWERTY	0.0805	(0.460)	0.175			
QWERTY and Touchscreen	0.307	(0.468)	0.656			
Touchscreen	0.122	(0.467)	0.260	-0.791***	(0.141)	-5.624
Entry Quarter	-0.0939**	(0.0440)	-2.135	0.0693***	(0.0149)	4.637

Table A2**Preferred Quarterly and Annual Mobile Phone Price Indexes Based on IDC Data**

	All Mobile Phones	Smartphones	Feature Phones
2010 Q1	4.68	4.73	4.32
2010 Q2	4.64	4.65	4.28
2010 Q3	4.57	4.57	4.22
2010 Q4	4.56	4.56	4.21
2011 Q1	4.54	4.56	4.18
2011 Q2	4.54	4.53	4.20
2011 Q3	4.52	4.50	4.19
2011 Q4	4.46	4.39	4.15
2012 Q1	4.39	4.38	4.05
2012 Q2	4.38	4.38	4.03
2012 Q3	4.37	4.38	4.01
2012 Q4	4.33	4.35	3.95
2013 Q1	4.32	4.34	3.95
2013 Q2	4.27	4.28	3.92
2013 Q3	4.17	4.21	3.77
2013 Q4	4.10	4.13	3.71
2014 Q1	4.02	4.11	3.48
2014 Q2	3.96	4.05	3.39
2014 Q3	3.92	4.01	3.36
2014 Q4	3.84	3.96	3.18
2015 Q1	3.84	3.95	3.17
2015 Q2	3.78	3.91	3.04
2015 Q3	3.73	3.85	2.99
2015 Q4	3.64	3.76	2.96
2016 Q1	3.60	3.72	2.91
2016 Q2	3.54	3.66	2.92
2016 Q3	3.51	3.61	3.00
2016 Q4	3.44	3.54	3.01
2017 Q1	3.42	3.52	2.99
2017 Q2	3.38	3.48	2.96
2017 Q3	3.32	3.42	2.92
2017 Q4	3.36	3.45	2.93
2018 Q1	3.35	3.45	2.84
2010	4.61	4.61	4.61
2011	4.51	4.47	4.52
2012	4.36	4.35	4.36
2013	4.21	4.21	4.18
2014	3.93	4.01	3.70
2015	3.74	3.84	3.38
2016	3.52	3.61	3.31
2017	3.36	3.44	3.30