

Retail vs. Amazon

9th Annual Deep Dive - The State of Retail on the Other Side

In our IXth annual Retail vs. AMZN deep dive, we have numerous observations.

(1) COVID-19 caused a sharp inflection in online adoption across most categories, with adjusted penetration at 19% vs. 15% LY, jumping ~3 years ahead. The big debate is whether this steps back in 2021 on reopening. *Team Internet is sanguine it will not, and sees a 40-50% digital penetration long term, while Team Retail is expecting a step back, and suspects 50% is too high.* (2) AMZN's share of US e-commerce rose to 39% and should surpass WMT as the largest US retailer in 2022. (3) The power of stores was evident in a massive growth pickup in 2021, validating TGT's strategic shift that started in 2015. eMarketer estimated that for the five largest traditional players pickup accounted for 42% of online sales and >50% of growth in 2020. **This significantly undermines the bear case on the death of retail**, especially for the largest, well-capitalized players in respective industries (most of Team Retail's coverage). (4) Beauty remains an experiential category (ULTA). (5) WMT is taking a page from AMZN's book to both gain share in gen merch online and grow alternative profit pools (e.g., advertising, 3P, membership); *we estimate a 20-bp tailwind to WMT US gross margin over the next few years from advertising and 3P. That said, given its high share in grocery and nature of its store base, gen merch online is THE share opportunity it needs to pursue to achieve its 4% comp target.* (6) Prime subscription valued at ~\$1,000/year; upcoming price increase likely. (7) WMT+ leverages its unique asset base, but it is not Prime, and a compelling argument exists for Instacart or TGT's Shipt outside WMT's core markets. (8) While WMT, TGT, W, and others have an opportunity in online advertising, AMZN is the leader and we see line of sight to \$28B of ad revenue in 2021, representing potentially ~35% of overall EBIT. (9) Pricing vs. AMZN suggests that some retailers have used the buoyant demand environment to clip extra sales and margins during COVID-19 (e.g., DKS and W, as well as discounters), supporting our concern on give back when demand fades. (10) Our math indicates W continues to lead the online specialty home channel but it also suggests that W may have lost share in 2020. (11) Lastly, we wonder if BBY's more substantial embrace of online/fewer stores/less selling footage cracks the window to re-elevating AMZN risk from vendors' perspective.

- E-commerce penetration jumped to 14% from 11% LY according to the U.S. Census Bureau, growing ~3x the average rate of the last three years. The quarterly cadence was telling of COVID-19 with growth peaking in 2Q. Importantly, excluding auto, gas, and food, e-commerce represented 19% of retail spend in 2020, up from 15% in 2019 as adoption was pulled forward ~ 3 years. Figures 1 & 2.
- All categories logged record online penetration during the pandemic. Across Team Retail's coverage, Electronics continues to see the highest online penetration at 68% (vs. 53% in 2019). Apparel (31%), furniture/home furnishings (27%), and sporting goods (23%) continue to ramp. Home improvement is still only ~5% led by garden/patio growth in 2020 (backyard

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time during COVID-19). CPG penetration leapt to ~8% from 5% with packaged food growing fastest. Top CPG penetrations were Pet Care (30%), Beauty/Personal Care (21%), and Consumer Health (16%). *Figures 16-23.*

- **Amazon's share of US e-commerce increased to 39% in 2020 and AMZN should surpass WMT as the largest US retailer in 2022.** AMZN's US GMV reached an estimated \$316B in 2020 (+45% Y/Y ex-Whole Foods), accelerating from +22% in 2019, driving 39% share of US e-commerce and almost 8% of total adj. retail sales. AMZN's accelerated top-line growth at large scale was driven by outsized growth in large & under-penetrated categories (i.e., CPG/Grocery & Apparel), the Prime flywheel (200M+ global subs), & strong 3P seller growth (record 55% of units in 4Q20/1Q21). Going forward, we expect the return of PID shipping in the US & AMZN's 50% Y/Y square footage expansion in 2020 to both drive & support future growth. *We provide estimates of AMZN's share of US e-commerce by category in Figure 29.*
- **Team Internet believes e-commerce penetration will continue to increase in 2021, and can reach 40-50% of retail over time.** While e-commerce gains during the pandemic were initially driven by the closure of B&M stores or consumers hesitant to shop in-person, e-comm has remained strong into re-opening. Specifically, e-comm penetration expanded ~358bps Y/Y in 1Q21 to 19.3%. We project e-commerce will reach 30% penetration of retail in 2025, and could be 40-50% over time. *We estimate what penetration could look like by category in a 45% overall penetration scenario in Figure 5.*
- **Team Retail believes e-commerce has taken three steps forward, but will step back in 2021.** We expect e-commerce mix to decline in 2021 for three reasons. First, the gap between core retail sales growth and e-commerce only growth has steadily receded since last May (and took a step function down in March toward more normal levels as vaccination sped up, Figure 6). We also note that calendar 1Q represented low levels of vaccination while shelter in place orders occurred mid-to-late March a year ago. Second, online penetration generally receded for our retailers in 1Q21 YOY (Figure 7), with particular enthusiasm from TGT and WMT on the return to stores (both essential last year). Third, companies like BBY and ULTA are explicitly guiding for penetration declines YOY and we are often modeling it down for the balance of the year for the closed store crowd (Figure 8). Net-net, while we see the long-term digital penetration above 30%, 50% seems high.
- **What IS an online sale? The power of stores: curbside flexes its muscles during COVID-19.** We also want to draw a distinction of what IS an "online" sale, given the implied broad negative consequences of traditional retailers vis a vis AMZN. In 2020, TGT saw a >600% increase in its Drive Up offering and a 70% increase in BOPIS (vs. total digital comp +152%). HD, LOW, and BBY continue to point to BOPIS rates of 50%+. eMarketer estimated that click/collect sales more than doubled in 2020 and projects double digit growth rates over the next four years (vs. typical e-commerce mid-teens growth). *TGT, BBY, HD, and LOW led their study with pickup overall accounting for 42% of online sales and >50% of growth for the five largest players. WMT pickup was ~1/3 of online sales and 43% of ecomm growth.* Figure 9.
- **Survey says! Still a draw to stores in apparel and beauty (beauty, in particular).** We also conducted a detailed consumer survey along with JPM's Matt Boss regarding purchase intentions. Online apparel share is expected to be flat to up vs. pre-pandemic levels (with 50% of respondents expecting online

shopping on apparel & footwear to remain "about the same" to 2019 in a post-pandemic world while 37% expect it to increase). For cosmetics, *only 16%* of respondents noted they were more likely to shop online compared to 2019 post the pandemic, while 25% said they were less likely to shop online.

- **WMT vs. AMZN: battle of the “everything” stores.** The original everything store, WMT, is leveraging its specific asset base/dominance in grocery while taking numerous pages from AMZN (e.g., membership, 3P, advertising) to drive alternative profit pools, to both reinvest in the business and fuel its new LDD TSR algo (with a 4% comp and gross margin fuel the big changes). Recall, WMT has ~22% share in grocery (2x #2) but only 6% share in gen merch (lower online) while AMZN has 9% total share (39% of online). WMT has expanded its aperture to go after gen merch (e.g., fulfillment services buildout) given its high level of share in grocery (its online grocery buildout may just largely hold serve on share), the need to expand its customer base beyond the store where its gen merch share largely resides, and considering high margin benefit of the category to fund the high cost of e-commerce. Figures 80-81.
- **WMT: alternative profit pool improves gross margin outlook; WMT+ opportunity is not Prime.** WMT’s advertising and 3P (including WFS) efforts are furthest along with ~20 bps (e) of gross margin tailwind to the US business (~15 bps to enterprise) for the next few years. Historically, the WMT productivity loop had a down 10-20 bps GM placeholder that was offset by SG&A leverage (and thus flat EBIT margin, which could now expand). WMT+ remains in development, with pharmacy discounts the recently added value a la AMZN. That said, WMT+ is built on a same-day grocery backbone with the convenience of an incremental 80K gen merch store SKUs available same day (not an endless aisle). For the core WMT shopper in markets where it has high grocery share, this makes a lot of sense, in our view. That said, for the same cost, if one subscribes to Instacart or TGT’s Shipt, the member gets a much wider offering. Lastly, WMT’s skew towards lower income shoppers could also limit “how big is big” for WMT+ partly offset by new customer acquisition.
- **Prime subscription valued at ~\$1,000/year, upcoming price increase likely.** We did another Prime deep dive and we estimate that unbundling all of Prime’s components reveals a package of offerings worth ~\$1,000/year, ~8.5x the actual \$119 annual Prime cost in the US, up 17% from our estimated ~\$860 value in 2020. New benefits over the past year include an expanded Prime Video content slate, new podcast offerings on Prime Music, Whole Foods pickup to all 500+ Whole Food stores throughout the US (vs 150+ in 2020), & Amazon Fresh/Whole Foods delivery available in ~5k+ cities/towns via Amazon Key (vs. prior 50 cities/towns). AMZN increased FC square footage 50% Y/Y & is also restoring Prime 1-Day. We believe the pandemic may have delayed a Prime price increase in 2020, & that could now come over the next few quarters. We project Prime subs will reach ~237.5M in 2021, driven by outsized Int’l growth as Prime is only ~16-28% penetrated within its existing Int’l footprint (20 countries), compared to ~75% in the US. Figures 31-46.
- **AMZN the leader in commerce media & the 3rd largest in online advertising.** We continue to believe that advertising presents a significant opportunity for Amazon & other retailers, w/the retail and CPG verticals expected to account for ~36% of US online ad spend in 2021, or ~\$58B. While Google & FB remain the clear leaders with 65%+ share of global online ad dollars, AMZN’s ad business is scaling rapidly with a line of sight to ~\$28B of

revenue in 2021. Beyond high growth revenue, we believe online advertising also represents a significant margin opportunity (GMs = ~80%+ & OMs = ~40%+) as an assumed ~42% operating margin implies AMZN's ad business could represent ~35% of AMZN's overall operating income in 2021, or \$12B. *Figures 47-51.*

- **Further evidence of peak merch margin as retailers cheat a bit on pricing.** Relative to a year ago, we noted some retailers widened price gaps vs. AMZN (e.g., DKS, W) or let price advantages over AMZN narrow (e.g., WMT, TGT, HD). More specifically, DKS saw the highest jump in premium vs. AMZN, going to 5% premium vs. AMZN vs. -1% discount last year followed by W, whose premium jumped to 6%, on average, vs. 2% LY. Given dynamic pricing and skew due to one-off large gaps, we don't want to over-read. That said, this clearly follows the law of supply and demand and also resonates in the record merchandise margin rates seen by many retailers, which portends some comp and margin pain as demand slows.
- **E-commerce growth for most of our retailers outgrew that of the industry sans W (US only) and WSM.** BBY, ASO, and TGT significantly outpaced the growth in their respective categories (the differentials range from 116% to 127% above) with ASO benefitting from a low base and TGT winning share with curbside and Shipt.
- **Wayfair holds leading US online market share but share seemed to recede in 2020.** We estimate that W had 21% share of the online home market in 2020. That said, our math suggests that this was down 100 bps YOY. The question we have is whether it's a mix question with furniture (>60% of WSM's mix) growing ~50% online in 2020 while furnishings was less than half that. Either way, we've noted previously that W is showing a higher beta vs. the market growth rate given its massive scale in the US while it showed more deceleration over the year than other peers while the store vs. online shift discussion raises concerns on the Street's positive 2H US sales growth estimates.
- **Could BBY's store/e-com/labor strategy re-elevate AMZN risk?** Last year, CE online penetration jumped to 68% from 53%. While this is likely exaggerated vs. BBY's addressable market given mix differences, BBY's online penetration leapt to 43% from 19%. BBY now expects its online mix to potentially reach half of sales overtime. As a result, BBY has embraced a new operating model. It closed ~2% of its US stores annually in recent years, and we expect that to potentially accelerate, with the company testing reducing selling footage for more online fulfillment (and pivoting to smaller footprints). It also cut ~3% of its workforce. While investors are focused on potential margin accretion from rent/wage savings, the question not being asked is how this changes the BBY's stature with vendors? BBY's turnaround was partly rooted in how vendors started treating it appropriately from a MAP and allocation perspective. More online selling may diminish BBY's platform differential vs. AMZN in terms of providing the consumers the full "Samsung" experience (especially in better and best price points, where BBY is advantaged).
- **HD the only true same-day/next-day competitor to AMZN at this point.** HD is the leader in traditional retail, offering same-day services focused on top 40 markets, with 90% next day parcel reach by the end of 2021 and big/bulky by the end of 2022. Figure 56.

- **BBBY jumps in checkout efficiency.** Analyzing the number of registered user clicks to checkout, AMZN remains king (2) with most of our retailers at 3. BBBY made huge strides, going from 6 to 3 YOY. ASO/DKS lag at 5. Figure 59.

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Online Landscape & Post COVID-19 Implications

2020: E-commerce Growth Surged on B&M Shutdowns & Social Distancing

E-commerce sales grew 32.3% in 2020, up from its typical mid-teens trend. The quarterly cadence was telling of the COVID-19 crisis with growth accelerating from 14.8% in 1Q to 44.5% in 2Q as non-essential brick and mortar (“B&M”) retailers shut doors from mid-March and partially through end of July, resulting in +36.6% growth in 3Q and 32.1% in 4Q as reopened stores operated at limited capacity, leaned on e-commerce/BOPIS/curbside pickup options, and social distancing persisted throughout the end of 2020.

Figure 1: Annual E-commerce Sales

Year	Retail Sales (millions of dollars)		E-commerce as a Percent of Total	Percent Change From a Year Ago		E-commerce vs total retail sales growth rates
	Total	E-commerce		Total	E-commerce	
2000	2,979,385	27,415	0.9%	-	-	
2001	3,062,153	34,120	1.1%	2.8%	24.5%	21.7%
2002	3,129,617	44,420	1.4%	2.2%	30.2%	28.0%
2003	3,261,614	56,932	1.7%	4.2%	28.2%	23.9%
2004	3,460,884	72,353	2.1%	6.1%	27.1%	21.0%
2005	3,686,580	91,051	2.5%	6.5%	25.8%	19.3%
2006	3,876,561	112,764	2.9%	5.2%	23.8%	18.7%
2007	3,997,356	135,877	3.4%	3.1%	20.5%	17.4%
2008	3,927,636	141,865	3.6%	-1.7%	4.4%	6.2%
2009	3,612,988	144,926	4.0%	-8.0%	2.2%	10.2%
2010	3,816,760	169,141	4.4%	5.6%	16.7%	11.1%
2011	4,102,027	199,098	4.9%	7.5%	17.7%	10.2%
2012	4,296,762	230,771	5.4%	4.7%	15.9%	11.2%
2013	4,458,197	262,303	5.9%	3.8%	13.7%	9.9%
2014	4,633,589	301,365	6.5%	3.9%	14.9%	11.0%
2015	4,721,579	344,982	7.3%	1.9%	14.5%	12.6%
2016	4,837,599	395,987	8.2%	2.5%	14.8%	12.3%
2017	5,058,370	457,239	9.0%	4.6%	15.5%	10.9%
2018	5,272,247	518,468	9.8%	4.2%	13.4%	9.2%
2019	5,449,475	595,722	10.9%	3.4%	14.9%	11.5%
1Q 2020	1,354,477	154,575	11.4%	1.4%	10.6%	9.2%
2Q 2020	1,301,259	203,796	15.7%	-4.3%	39.2%	43.5%
3Q 2020	1,458,670	201,382	13.8%	6.2%	31.4%	25.2%
4Q 2020	1,467,425	199,665	13.6%	6.2%	27.7%	21.4%
2020	5,581,831	759,418	13.6%	2.4%	27.5%	25.0%
1Q 2021	1,581,424	215,035	13.6%	16.8%	39.1%	22.4%

Source: U.S. Census Bureau, using adjusted retail & e-commerce sales.

Importantly, per the Census Bureau’s definition, “E-commerce is the sale of goods and services where the buyer places an order, or the price and terms of the sale are negotiated over an Internet, mobile device (M-Commerce), extranet, EDI network, electronic mail, or other comparable online system. Payment may or may not be made online.” Hence, we believe the e-commerce numbers generated by the Census Bureau’s quarterly e-commerce report should include BOPIS (whereas some companies such as COST consider it part of store sales). It is also worth mentioning that the surveyed retailers self-report these figures, which leaves room for discretion over what a retailer considers e-commerce sales.

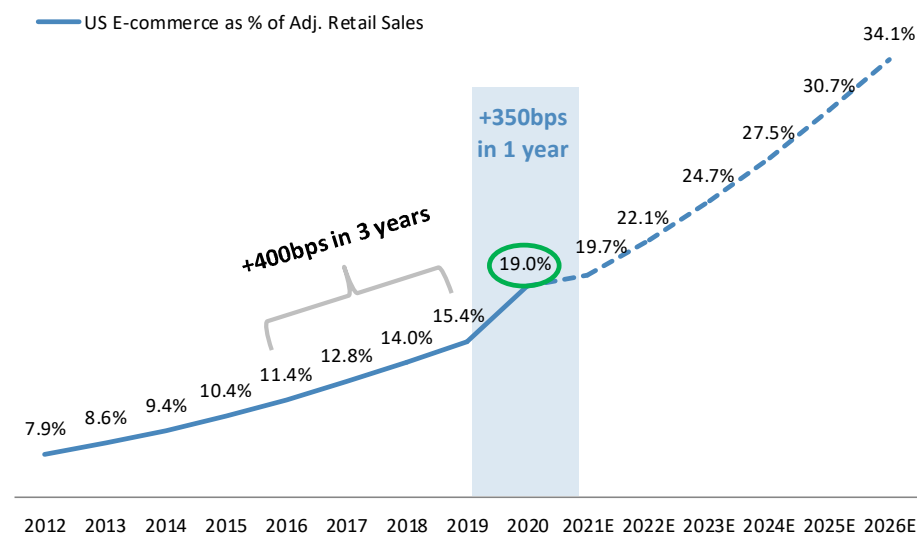
Below we present Team Internet's view that e-Commerce penetration will continue to rise (with a 40-50% long term view), despite lapping closed stores and social distancing, followed by Team Retail's counterpoint that we take step back in 2021.

Team Internet's View: No Step Back Expected; 40-50% LT Penetration

We estimate e-commerce comprised 19% of adj. retail sales in 2020, up from 15.4% penetration in 2019. Quantifying this penetration uplift, if we are correct our estimate implies e-commerce penetration increased by ~358bps in one year—approximately in-line with the total +400bps penetration increase from 2016-2019 (see Figure 2). We highlight e-commerce penetration reached 20.2% (+580bps Y/Y) in 2Q20, indicating that e-comm penetration was significantly pulled-forward during initial lockdowns in April. Likewise, e-comm penetration peaked at 20.9% in 4Q20 amidst renewed global lockdown restrictions, further demonstrating the pandemic's continued beneficial impact on retail digitalization. **Importantly, AMZN did not lose positioning as the e-comm pie expanded, increasing its total US e-commerce market share +356bps to ~39% in '20.**

Figure 2: US E-Commerce Pulled Forward ~3 Years in 2020

E-commerce as % of Adj. Retail Sales



Source: US Department of Commerce (historics), J.P. Morgan estimates (projections).

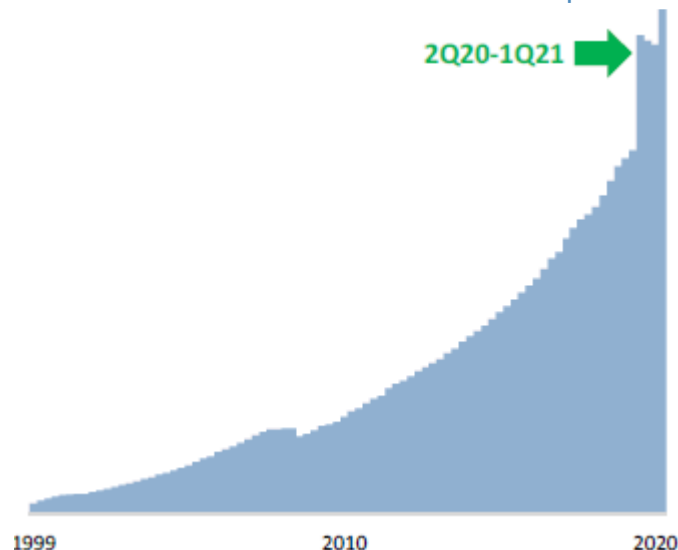
E-commerce Long-Term:

- ~40%-50% penetration
- +300bps increase in CPG/Grocery combined penetration vs pre-COVID-19 levels to ~7%
- Grocery – 25% of adj. retail sales & currently ~10% e-commerce penetration

Sustainability of E-Commerce Gains & Our L-T Penetration Target

Though store closures & lockdown restrictions drove initial e-commerce market share gains, we note e-commerce growth has remained strong during the early part of re-opening (see Figure 3). Specifically, US e-commerce sales grew +39% Y/Y in 1Q21 while lapping initial COVID-19 related lockdowns from March'20 & amidst economic re-openings in various states. Even further, e-commerce penetration expanded ~358bps Y/Y in 1Q21 to 19.3%, highlighting the sustainability of e-commerce penetration exiting the pandemic. Considering the sustainability of e-commerce market share gains, we believe the pandemic pulled forward nearly 3 years of e-comm growth & we expect online penetration of US adjusted retail sales to reach ~30% in 2025 (see Figure 4). We also raise our long-term penetration estimate from 35-40% to 40%-50% e-commerce penetration over time. Our bullish long-term targets assume greater penetration in the Consumer Packaged Goods & Grocery categories considering combined CPG/grocery penetration grew +300bps vs. pre-COVID-19 levels to ~7% e-commerce penetration. On a stand-alone basis, COVID-19 pulled forward Grocery e-commerce penetration +700bps Y/Y to ~10%. We estimate that CPG & Grocery comprise 45% of adj. retail sales & we believe this secular shift is permanent. Notably, Grocery at 25% of adj. retail sales should serve as the key catalyst to attaining L-T 40%-50% online penetration. In Figure 5 below, we estimate what penetration could look like by category in a 45% overall penetration scenario. We break out Grocery from CPG in our long-term projections, estimating Grocery penetration of 25% & CPG ex-Grocery penetration of 53% longer-term.

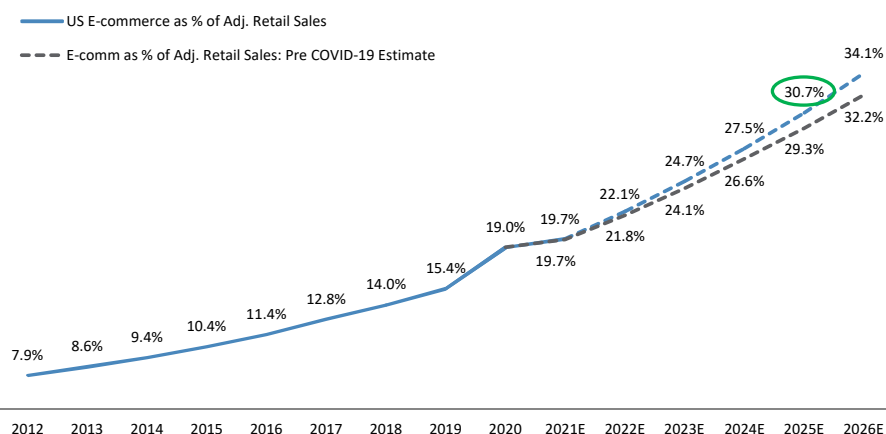
Figure 3: E-commerce Has Sustained "New Normal" Even as Stores Reopen



Source: US Department of Commerce. Note: Shows quarterly adjusted e-commerce sales.

Figure 4: We Project E-commerce to Reach 30% Penetration in 2025

E-commerce as % of Adj. Retail Sales



Source: US Department of Commerce (historicals), J.P. Morgan estimates (projections).

Figure 5: Category Build to 45% Longer-Term US E-commerce Penetration

Category	E-comm as % of Retail		Category Penetration vs. Overall 45% E-comm Share
	2020	Long-Term	
CPG: Grocery	10%	25%	Under
Furniture, Appliances & Equipment	11%	35%	Under
Jewelry & Watches	15%	38%	Under
Home & Garden	23%	45%	In-Line
Flowers, Greetings & Misc. Gifts	29%	45%	In-Line
Other	20%	45%	In-Line
CPG: ex-grocery	3%	53%	Over
Sports & Fitness	23%	55%	Over
Apparel & Accessories	23%	58%	Over
Toys & Hobbies	30%	60%	Over
Office Supplies	57%	65%	Over
Consumer Electronics	53%	70%	Over
Books & Magazines	43%	75%	Over
Total	19%	45%	

Source: comScore & J.P. Morgan estimates. Notes: Excludes Event Tickets; Consumer Electronics includes Computer Hardware, Computer Software, Consumer Electronics, Video Games / Consoles / Accessories, & Music / Movies / Videos; Other includes General Services, Online Services, & Other Products such as Arts & Collectibles and Auto Accessories.

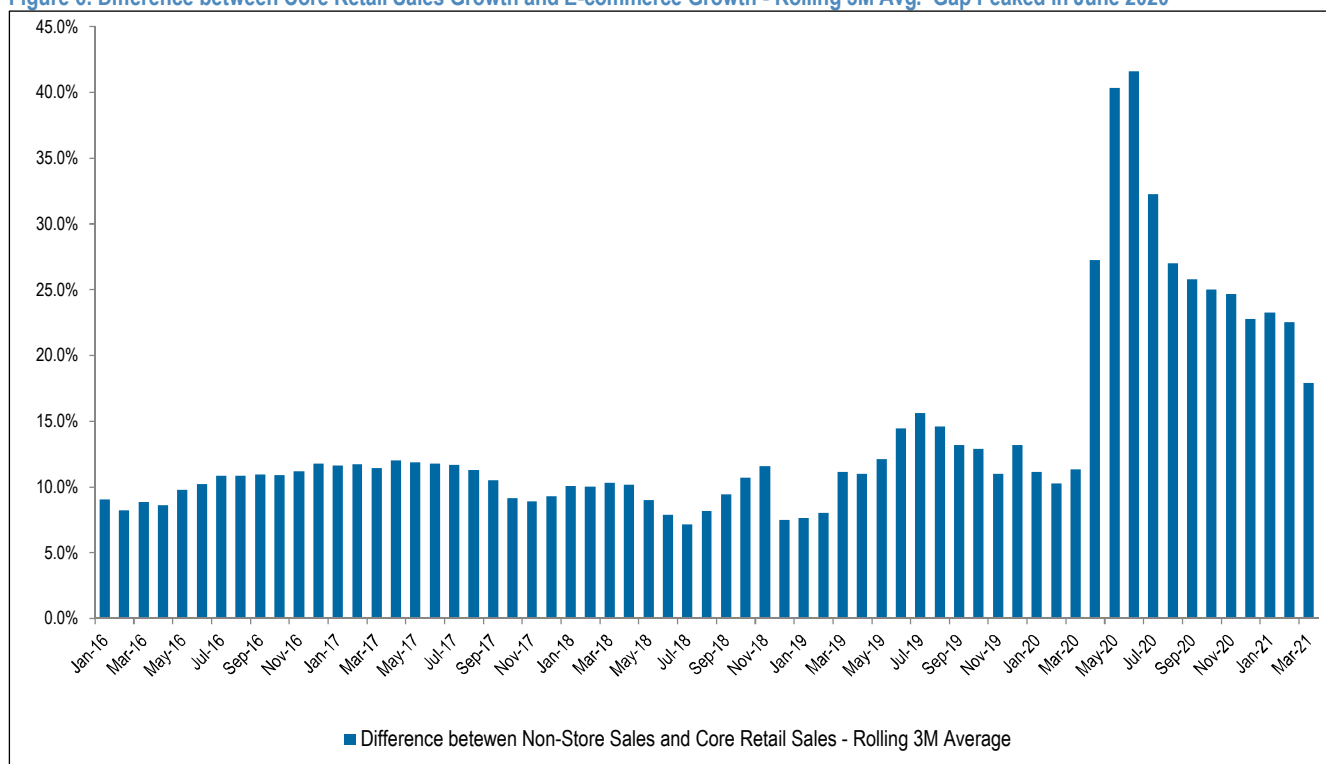
Team Retail View: Online Penetration Takes 3 Steps Forward and Then 1 Step Back

As we discussed in our 9th [Share of Wallet](#) analysis (we also hosted a conference call, contact us for the slides and transcript), online penetration took three steps forward and likely to take one or more steps back.

In-store vs. online gap normalizing; March too early of a read

Shown in the chart below is the difference between the growth rate in non-store sales and core retail sales growth (overall). As one can see, e-Commerce widened its growth gap vs. B&M to all-time highs in 2020 (especially during the closed store/peak fear phase in the spring as COVID-19 lockdowns drove non-essential store closures from March - July. Indeed, e-Commerce vs. B&M growth widened to 25.5% in 2020, up from 13.2% in 2019. The gap reached its highest in June at 41.8%, on a rolling 3M basis, before moderating to 22.9% in December and ~18% as of March 2021.

Figure 6: Difference between Core Retail Sales Growth and E-commerce Growth - Rolling 3M Avg. Gap Peaked in June 2020



Source: U.S. Census Bureau

That said, the gap is normalizing and we believe that looking at 1Q (or March trends) overstate the potential long-term penetration read through given where the US was from a pace of vaccination perspective.

Traditional Retailers Already Showing a Step Back (Qtr Ends April)

Below we show historical and JPMe projected online sales growth and penetration of retailers in our coverage (for the ones that disclose). These retailers saw meaningful acceleration in online sales growth and penetration in 2020, but are on track to retrace some of those gains in 2021. Indeed, most of the specialty retailers saw a tick down in online penetration in 1Q21 vs. 1Q20 when the pandemic took hold causing stores to close.

Figure 7: Online Sales as % of Total Sales

Online Penetration	1Q20	1Q21
Discounters		
WMT	9%	12%
TGT	15%	18%
COST	NA	NA
BJ	5%	6%
Home Improvement		
HD	15%	14%
LOW	9%	9%
Home Furnishers		
BBBY	66%	36%
WSM	71%	65%
W (U.S. only)	100%	100%
Specialty		
ULTA	33%	23%
DKS	39%	20%
BBY	42%	33%
ASO	13%	7%

Source: Company reports & JPMorgan estimates.

Expecting Declines in Online Penetration for a Number of Retailers

In addition, we note particular enthusiasm from the likes of TGT and WMT on the return to stores (both essential last year), and companies like BBY and ULTA are explicitly guiding for penetration declines YOY. See our estimates below for key retailers.

Figure 8: Online Sales Growth and Penetration by Year

Online Sales Growth	2017	2018	2019	2020	2021E
Discounters					
WMT	44%	40%	37%	80%	19%
TGT	27%	36%	29%	152%	4%
COST	26%	29%	19%	79%	NA
BJ	NA	NA	NA	255%	NA
Home Improvement					
HD	22%	24%	19%	86%	NA
LOW	34%	15%	7%	111%	NA
Home Furnishers					
BBBY	27%	35%	5%	83%	-21%
WSM	6%	11%	9%	45%	8%
W (U.S. only)	36%	41%	34%	54%	5%
Specialty					
ULTA	67%	35%	27%	117%	-10%
DKS	14%	17%	16%	114%	-18%
BBY	24%	11%	17%	145%	-17%
ASO	NA	21%	8%	137%	-4%
Online Penetration	2017	2018	2019	2020	2021E
Discounters					
WMT	4%	5%	7%	12%	13%
TGT	5%	7%	9%	18%	17%
COST	4%	4%	5%	6%	NA
BJ	NA	NA	2%	6%	NA
Home Improvement					
HD	7%	8%	9%	14%	NA
LOW	4%	4%	5%	8%	NA
Home Furnishers					
BBBY	13%	16%	17%	38%	38%
WSM	52%	54%	56%	71%	67%
W (U.S. only)	100%	100%	100%	100%	100%
Specialty					
ULTA	10%	11%	13%	33%	23%
DKS	13%	15%	17%	32%	22%
BBY	15%	17%	19%	43%	33%
ASO	NA	5%	5%	10%	9%

Source: Company reports & JPMorgan estimates.

What IS Online? Pick Up Driving Significant "e-Commerce" Growth

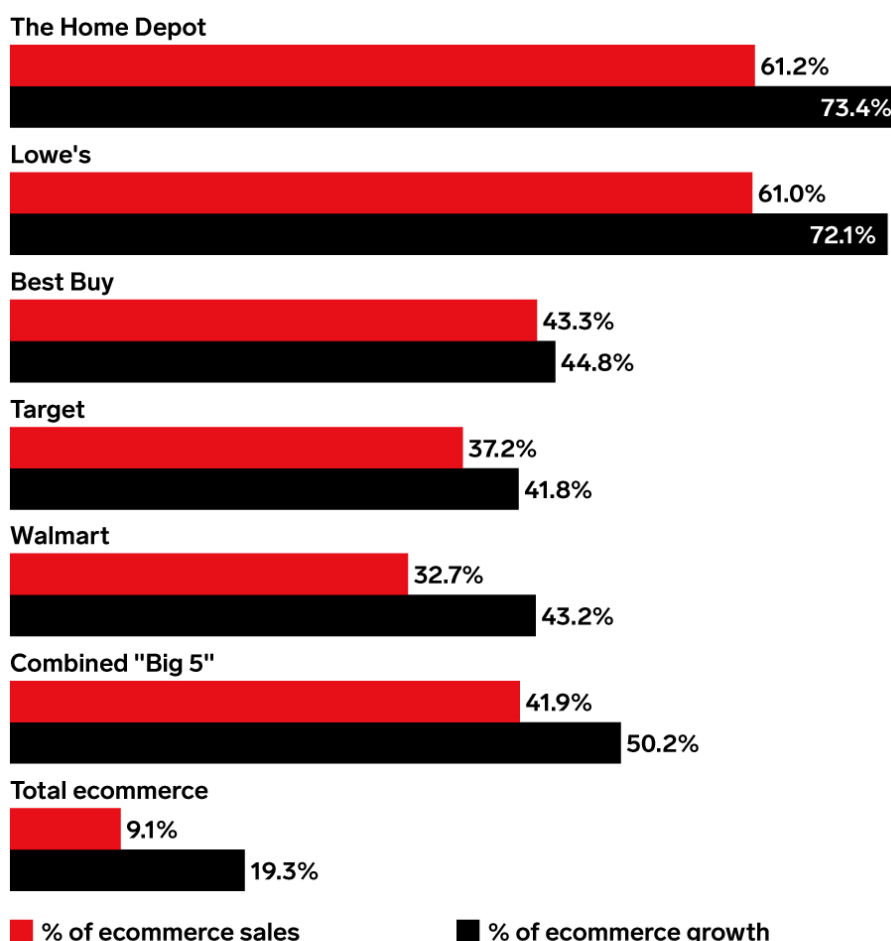
We also want to draw a distinction of what *IS* "online" sales given the implied broad negative consequences of traditional retailers vis a vis AMZN's. The power of conveniently located stores for the consumer to "pick up" especially given the ease of curbside (as well as BOPIS where HD, LOW, and BBY continue to point to BOPIS rates of 50%+) is clearly evident in the chart below (with the implication that this consumer preference goes beyond consumables).

Indeed, according to [eMarketer](#), US click-and-collect sales more than doubled in 2020 and will sustain double-digit growth rates over the next four years. The study further estimates US shoppers spent \$72.46B via click and collect last year, accounting for 9.1% of all e-commerce sales, and will increase to \$83.47B and 9.9%, respectively. Seven major click-and-collect multichannel retailers accounted for 64.0% of click-and-collect sales in the US in 2020, as shown in chart below, per eMarketer. *TGT, BBY, HD and LOW led with pickup overall accounting for 42% of online sales and more than half of growth for the five largest players. WMT was ~1/3 of sales and 43% of ecomm growth.*

Figure 9: TGT, BBY, HD and LOW Led with Pickup Overall

The "Big 5" of US Click and Collect, 2020

% of ecommerce sales and % of ecommerce growth



Note: includes products or services ordered using the internet (regardless of payment method) for pickup in a store or a locker in a retail or pickup hub location; excludes travel and event tickets, payments such as bill pay, taxes or money transfers, food services and drinking place sales, gambling and other vice good sales; read as click and collect comprised 32.7% of ecommerce sales and contributed 43.2% of ecommerce growth at Walmart
Source: eMarketer, Dec 2020

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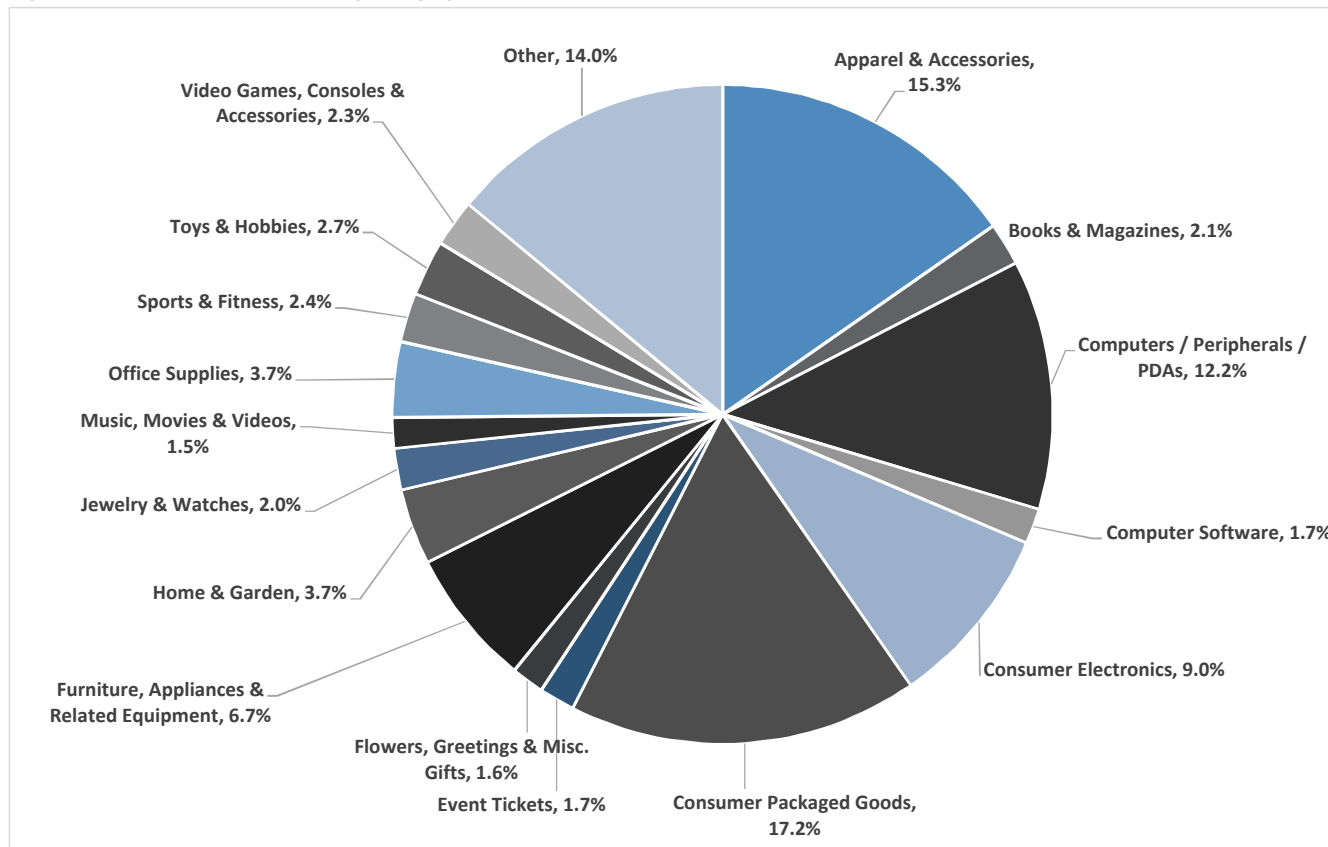
eMarketer | InsiderIntelligence.com

Source: eMarketer.

Online Category Penetration

Note, in assessing the below data we note that comScore tracks sales by product, not site. So, for example, apparel sold at Dick's Sporting Goods online ends up in apparel. If Best Buy sells a fitness watch, it ends up in Sports & Fitness.

Figure 10: Mix of 2020 Online Sales by Category (Desktop and Mobile)



Source: comScore.

2020: Year of CPG acceleration with COVID-19 loser categories receding (e.g., apparel, event tickets, jewelry)

The chart below presents the growth in online (only) sales by category according to comScore data. The pace decelerated to ~15% (vs. 16% in 2019) with half of the 16 categories accelerating while the other half decelerated.

Figure 11: Online Sales Growth by Category

Category	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Δ vs. 2019
Apparel & Accessories	14%	17%	20%	20%	19%	20%	23%	25%	19%	-4%	-23%
Books & Magazines	14%	15%	1%	2%	11%	14%	20%	15%	6%	-10%	-17%
Computer Hardware	12%	10%	8%	13%	5%	16%	21%	19%	18%	17%	-1%
Computer Software	15%	16%	1%	-4%	12%	24%	22%	16%	6%	29%	23%
Consumer Electronics (includes Tablets)	23%	25%	17%	14%	8%	15%	19%	18%	12%	2%	-10%
Consumer Packaged Goods	11%	14%	16%	21%	8%	17%	27%	31%	34%	79%	45%
Event Tickets	15%	16%	10%	8%	29%	24%	14%	28%	12%	-67%	-79%
Flowers, Greetings & Misc. Gifts	12%	14%	11%	6%	23%	24%	17%	15%	6%	40%	34%
Furniture, Appliances & Related Equipment	8%	10%	11%	16%	15%	26%	20%	31%	20%	63%	42%
Home & Garden	7%	12%	15%	14%	16%	22%	18%	28%	15%	46%	32%
Jewelry & Watches	17%	15%	11%	-1%	30%	39%	25%	17%	16%	-5%	-21%
Music, Movies & Videos	2%	8%	8%	6%	25%	21%	24%	21%	13%	10%	-2%
Office Supplies	9%	11%	8%	15%	6%	18%	15%	15%	3%	30%	27%
Sports & Fitness	10%	13%	17%	17%	32%	17%	18%	21%	26%	28%	2%
Toys & Hobbies	15%	16%	13%	14%	42%	16%	35%	20%	28%	3%	-25%
Video Games, Consoles & Accessories	12%	14%	9%	7%	44%	24%	14%	19%	10%	17%	7%
Total	12%	13%	19%	14%	14%	19%	20%	21%	16%	15%	-2%

Source: comScore. *Note: comScore data for 2014, 2015, and 2016 includes Mobile.

Interestingly, this modest deceleration in growth is contradictory to the Census report above. However, given the two different data sources, we cannot fully reconcile the two. For example, the Census Bureau data excludes event tickets, unlike comScore.

- Categories that saw the biggest acceleration were: CPG up 79% (vs. 34% LY), Furniture, Appliances, & Related Equipment up 63% (vs. 20% LY), and Flowers, Greetings & Misc. Gifts up 40% (vs. 6% LY). The rise of Consumer Packaged Goods is reasonable as consumers complied with shelter-in-place.
- Categories that saw the biggest deceleration were: Event Tickets down 67% (vs. +12% LY), Toys & Hobbies up 3% (vs. 28% LY), and Apparel & Accessories down 4% (vs. -19% LY). We find the Toys & Hobbies deceleration somewhat perplexing given HAS/MAT/FNKO all commented that roughly 1/3rd of sales in 2020 happened online vs. 1/4th the year prior while Michael's saw strong growth as well. Other categories that saw double digit deceleration include Jewelry & Watches (-5% vs. +16% LY), Books & Magazines (-10% vs. +6% LY), and Consumer Electronics (+2% vs. +12% LY).

Recall the COVID-19 outbreak first came to light around late February in the US and most states went into shelter-in-place in mid-March, which lasted to various degrees depending on geography until July.

Stimulus, healthy consumer, and reopening drive continued strong growth in 1Q21. Below, we see that overall online sales growth accelerated YOY at 22% in 1Q21 vs. 17% LY with 10 out of 16 categories seeing acceleration. The categories that saw the largest YOY acceleration in growth rates were Furniture (+84%), Home & Garden (+51%), Books & Magazines (+50%), Jewelry & Watches (+46%), and Flowers, Greetings & Misc. Gifts (+25%). The laggards that saw the biggest YOY deceleration were Tickets (-71%), Toys & Hobbies (-50%), Office Supplies (-24%), and Sports & Fitness (-18%).

Figure 12: ComScore Category YOY Growth in 1Q20 vs. LY, Sorted by Rate of Acceleration

Category	1Q20	1Q21	Delta vs. LY
Furniture, Appliances & Equipment	20%	104%	84%
Home & Garden	12%	62%	51%
Books & Magazines	-22%	28%	50%
Jewelry & Watches	-5%	41%	46%
Flowers, Greetings & Misc. Gifts	16%	41%	25%
Music, Movies & Videos	6%	31%	24%
Consumer Packaged Goods	55%	70%	15%
Computer Software	8%	22%	14%
Computer Hardware	20%	23%	3%
Consumer Electronics	11%	12%	0%
Apparel & Accessories	9%	7%	-3%
Video Games, Consoles & Accessories	18%	15%	-3%
Sports & Fitness	35%	17%	-18%
Office Supplies	23%	-1%	-24%
Toys & Hobbies	44%	-6%	-50%
Event Tickets	-6%	-78%	-71%
Total Non-travel excl. Auctions	17%	22%	5%

Source: comScore.

Mobile Penetration Drives Overall e-Commerce Mix; COVID-19 Distorts the Long Term Trend

68% of all digital sales still come from PCs and laptops, but this was 200 bps lower than last year's (which was 400 bps lower than the year before). **The moderation was likely related to work from home setups where people were at their desks (or simply home more often).** Smartphones account for 24% (up from 22%) of web sales and tablets account for ~8%, which was flat vs. LY (for the fourth time in a row), meaning smartphone adoption entirely drove mobile penetration up. On average, total mobile sales increased 23% YOY, well ahead of desktop's 11%, with smartphones outpacing tablets at 26% vs. 14%, respectively. There is a strong relationship between mobile penetration and overall e-commerce penetration.

- CPG was again the fastest category on mobile, up 109% in 2020 vs. 64% LY. This was followed by Sports & Fitness growing 53%, Computer Hardware growing 47% and Computer Software growing 44% on mobile in 2020.
- On the other side, the slowest growth categories on mobile were Tickets (-61%), followed by Apparel & Accessories (-2%), and Toys & Hobbies (-1%) as the effect of COVID-19 on category growth shows.

Figure 13: ComScore Category YOY Growth by Device, Sorted by Total Mobile Growth Rate

YOY Trends	Desktop	Smartphone	Tablet	Total Mobile (S+T)	Grand Total
Consumer Packaged Goods	63%	113%	94%	109%	79%
Sports & Fitness	11%	57%	44%	53%	28%
Computer Hardware	9%	49%	44%	47%	17%
Computer Software	22%	51%	17%	41%	29%
Office Supplies	29%	53%	9%	38%	30%
Home & Garden	53%	49%	6%	33%	46%
Video Games, Consoles & Accessories	0%	30%	32%	31%	17%
Music, Movies & Videos	-4%	24%	21%	23%	10%
Flowers, Greetings & Misc. Gifts	55%	23%	12%	20%	40%
Books & Magazines	-21%	19%	19%	19%	-10%
Other	8%	16%	20%	17%	10%
Toys & Hobbies	-15%	25%	-11%	15%	3%
Consumer Electronics (includes Tablets)	1%	8%	16%	10%	2%
Furniture, Appliances & Related Equipment	101%	21%	-26%	5%	63%
Jewelry & Watches	-9%	0%	-4%	-1%	-5%
Apparel & Accessories	-5%	1%	-10%	-2%	-4%
Event Tickets	-72%	-61%	-61%	-61%	-67%
Total (Non-Travel)	11%	26%	14%	23%	15%

Source: comScore.

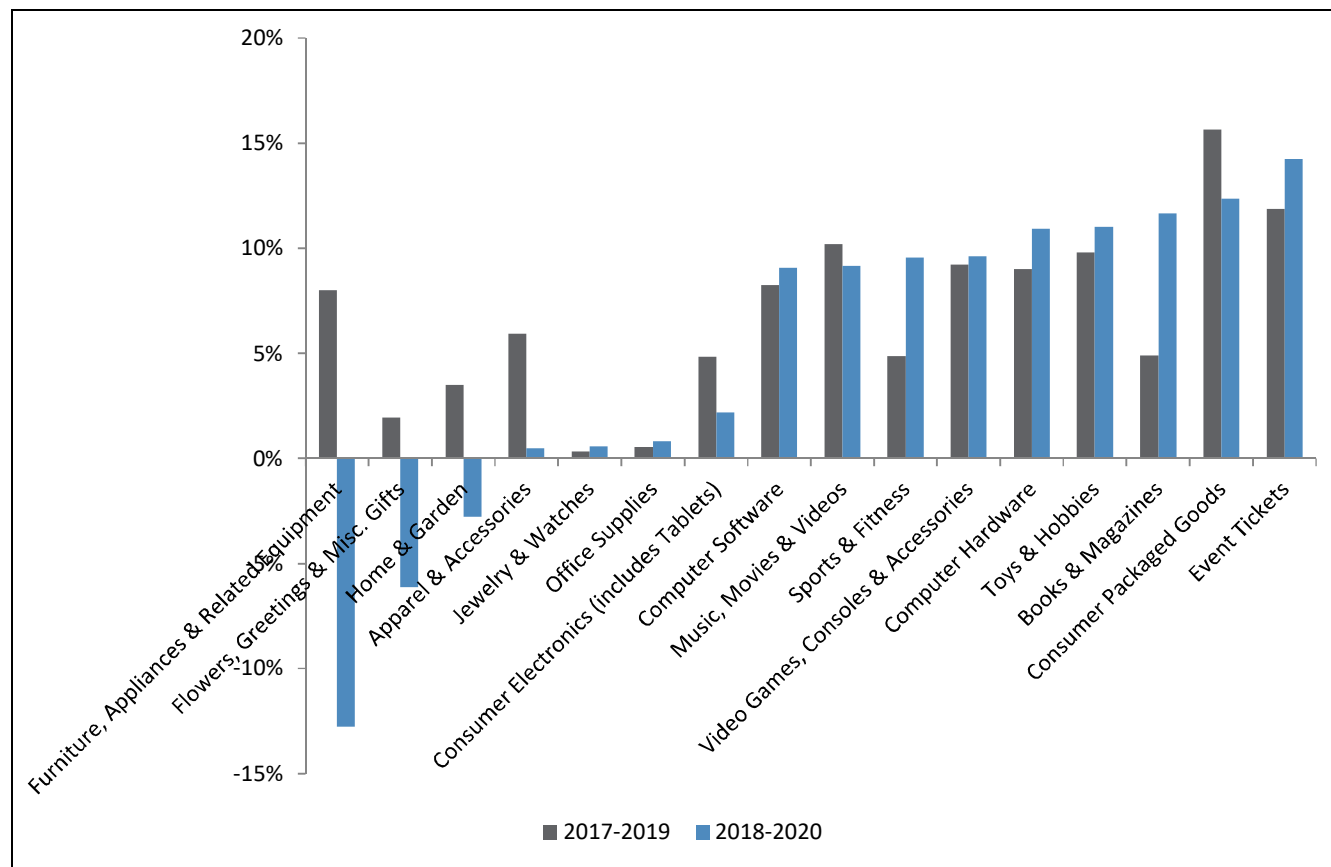
Figure 14: Mobile Drives Online Inflection: Toys Leading in Terms of Penetration, Followed by Video Games & Consoles, Music/Movies and Jewelry & Watches

Category	2017		2018		2019		2020	
	Online Growth	Mobile Penetration	Online Growth	Mobile Penetration	Online Growth	Mobile Penetration	Online Growth	Mobile Penetration
Mobile Penetration >40% (High)								
Toys & Hobbies	35%	49%	20%	55%	28%	59%	3%	66%
Video Games, Consoles & Accessories	14%	47%	19%	53%	10%	56%	17%	63%
Music, Movies & Videos	24%	42%	21%	50%	13%	53%	10%	59%
Jewelry & Watches	25%	50%	17%	51%	16%	50%	-5%	52%
Event Tickets	14%	31%	28%	37%	12%	43%	-67%	52%
Sports & Fitness	18%	37%	21%	40%	26%	41%	28%	49%
Computer Software	22%	32%	16%	34%	6%	40%	29%	43%
Consumer Packaged Goods	27%	20%	31%	29%	34%	36%	79%	41%
Mobile Penetration >32%, <40% (Above-Average)								
Books & Magazines	20%	23%	15%	25%	6%	28%	-10%	37%
Flowers, Greetings & Misc. Gifts	17%	41%	15%	43%	6%	43%	40%	37%
Mobile Penetration <32% (Below-Average)								
Apparel & Accessories	23%	22%	25%	28%	19%	28%	-4%	29%
Home & Garden	18%	28%	28%	32%	15%	32%	46%	29%
Computer Hardware	21%	12%	19%	16%	18%	21%	17%	27%
Furniture, Appliances & Related Equipment	20%	31%	31%	38%	20%	39%	63%	25%
Consumer Electronics (includes Tablets)	19%	10%	18%	14%	12%	15%	2%	16%
Office Supplies	15%	12%	15%	13%	3%	13%	30%	14%
Other	15%	21%	13%	21%	11%	22%	10%	24%
Total (Non-Travel)	20%	23%	21%	27%	16%	30%	15%	32%

Source: comScore.

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Figure 15: Change in Mobile Penetration by Category; Tickets, Toys, and Books & Magazines Continue to Rise; CPG Plateauing While Furniture and Home & Garden Reversed



Source: comScore.

The chart above again shows the impact of consumers spending more time in their homes and less on the go (i.e., greater use of PCs and tablets in categories where purchase involvement/browsing is higher like home).

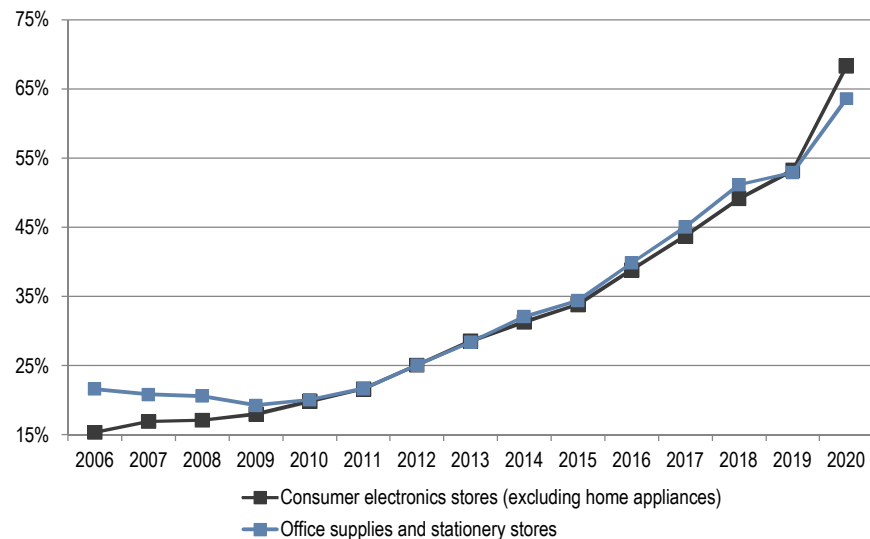
Tracking Encroachment

All Categories Logged Record Online Penetration Rates As COVID-19 Strikes; How Enduring Remains Key Question

Below we provide *our proprietary estimate* of the penetration of sales within relevant categories and the growth rate over time.

- Consumer Electronics and Office Supplies continue to see highest online penetration at 68% (vs. 53% LY) and 64% (vs. 53% LY). The pace accelerated for both in 2020 following deceleration in 2019.

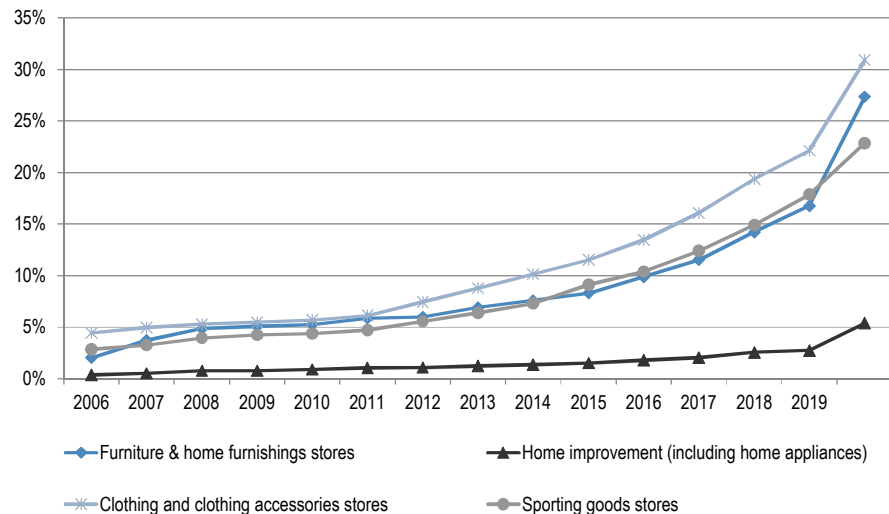
Figure 16: Online Penetration in Office Supplies & Consumer Electronics Category, 2006-2020



Source: comScore data, U.S. Census Bureau, and J.P. Morgan estimates. *Appliances are added to Home Improvement and subtracted from electronics and appliance stores.

- Going to the next level of penetration, we see that apparel (31%), furniture/home furnishings (27%), and sporting goods (23%) continue to ramp higher in mix of online sales.
- At the low end, home improvement has the lowest penetration rate at ~5%, up from LY's ~3%. We believe the overall low penetration is due to HD/LOW remaining open as essential retailers throughout the pandemic, while the nature of the materials used, immediacy of repair purchases, and project-based nature of the category are structural deterrents. *Worth mentioning here that both HD and LOW have home decor and furnishings in their sales mix that have a higher penetration online and are included in the Furniture & Home Furnishings category, thereby modestly depressing the overall penetration rate of the Home Improvement category shown in the chart below relative to HD and LOW's online mix.*

Figure 17: Online Penetration in Other Retail Categories, 2006-2020

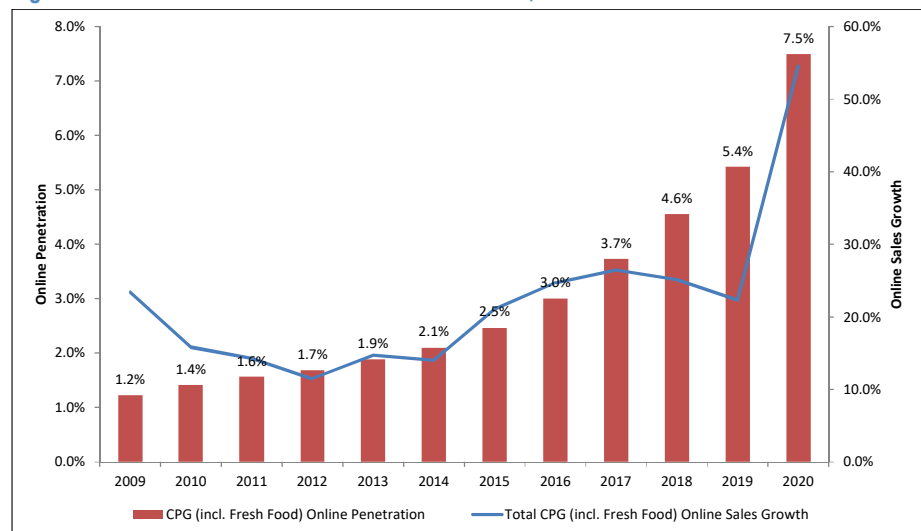


Source: comScore data, U.S. Census Bureau, and J.P. Morgan estimates. *Appliances are added to Home Improvement and subtracted from electronics and appliance stores.

Consumer Packaged Goods Online Penetration ~8%, Packaged Food Grew Fastest in 2020

We define CPG to include Alcoholic Beverages, Beauty & Personal Care, Consumer Health products, Fresh Food, Home Care, Hot Drinks, Packaged Food, Pet Care, Soft Drinks, and Tissue & Hygiene. Per Euromonitor, the category amounted to \$1.3T in aggregate sales growing at 11.8% YOY in 2020 vs. 2.7% in 2019. Online sales growth in the category jumped to 54.6% in 2020 from 22% LY (comScore estimated a 79% growth rate). Total online penetration for CPG was 7.5% in 2020 vs. 5.4% LY.

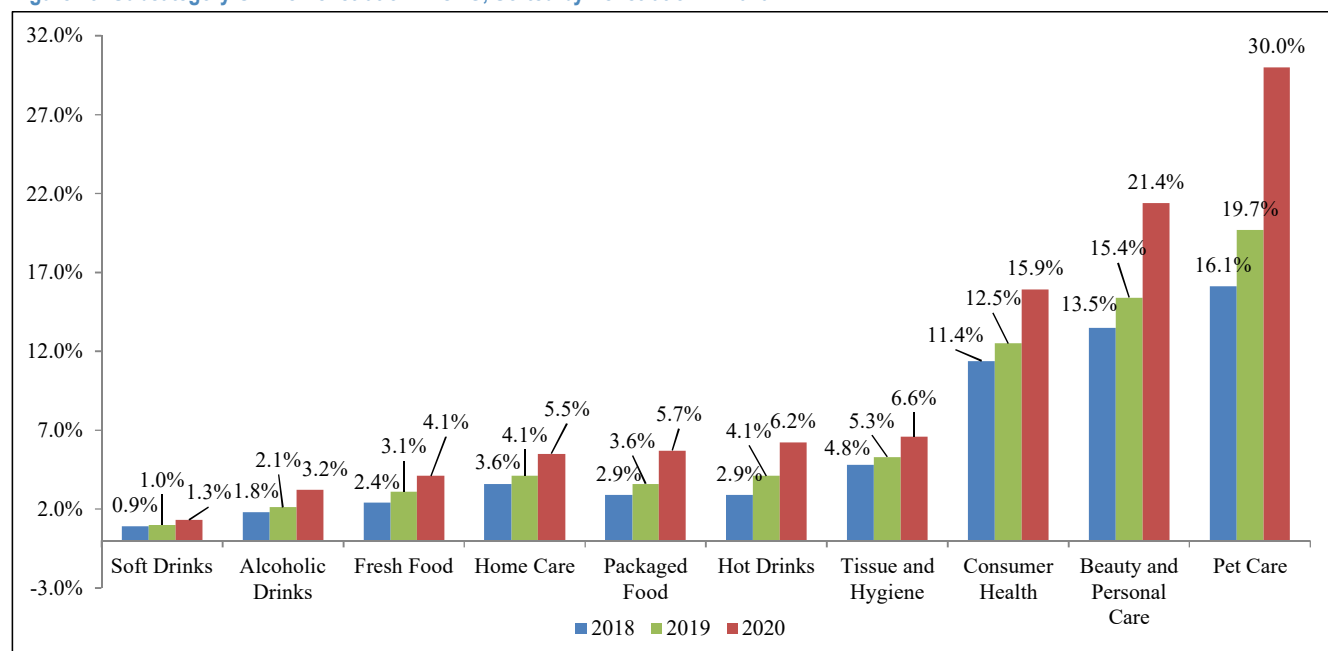
Figure 18: Online Penetration and Sales Growth in CPG, 2009-2020



Source: Euromonitor and J.P. Morgan estimates. Restated this year to exclude non-core categories.

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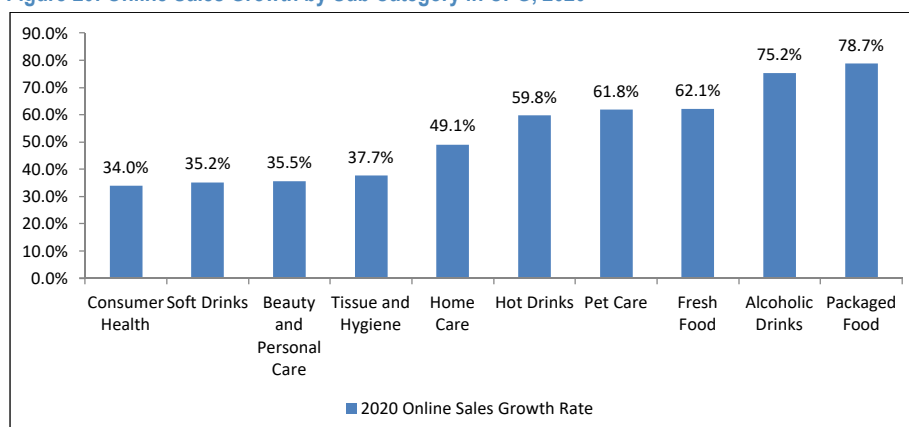
Figure 19: Subcategory Online Penetration in CPG, Sorted by Penetration in 2020



Source: Euromonitor and J.P. Morgan estimates.

Within the subcategories, the top online penetrations were in Pet Care at 30%, Beauty & Personal Care at 21.4%, and Consumer Health at 15.9%, while the lowest penetrations were in Soft Drinks (1.3%), Alcoholic Drinks (3.2%), Fresh Food (4.1%), Home Care (5.5%) and Packaged Food (5.7%).

Figure 20: Online Sales Growth by Sub Category in CPG, 2020



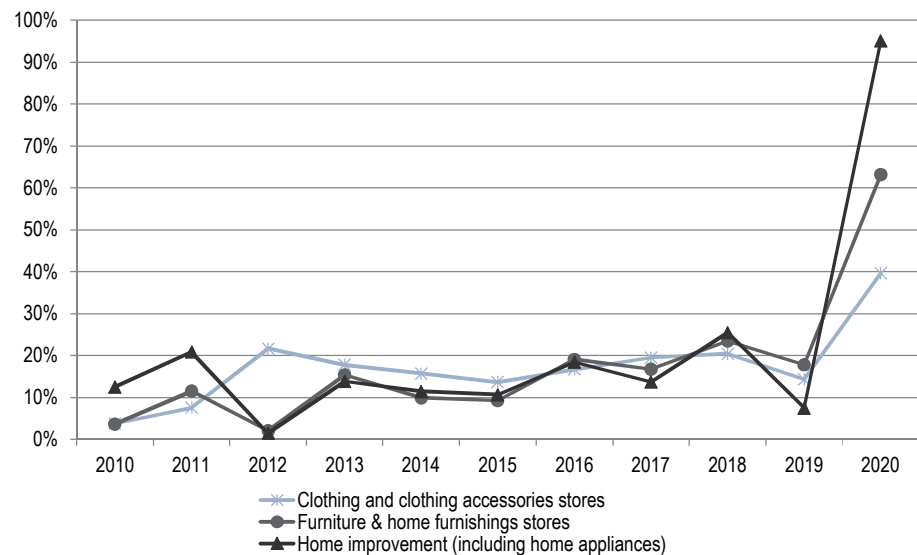
Source: Euromonitor and J.P. Morgan estimates.

Within the subcategories, the top online sales growth was in Packaged Food (79%), followed by Alcoholic Drinks (75%), Fresh Food (62%) and Pet Care (62%). The lowest growth rates were in Consumer Health (34%), Soft Drinks (35%), and Beauty and Personal Care (36%).

Home Improvement Leads with >20% Encroachment Rate

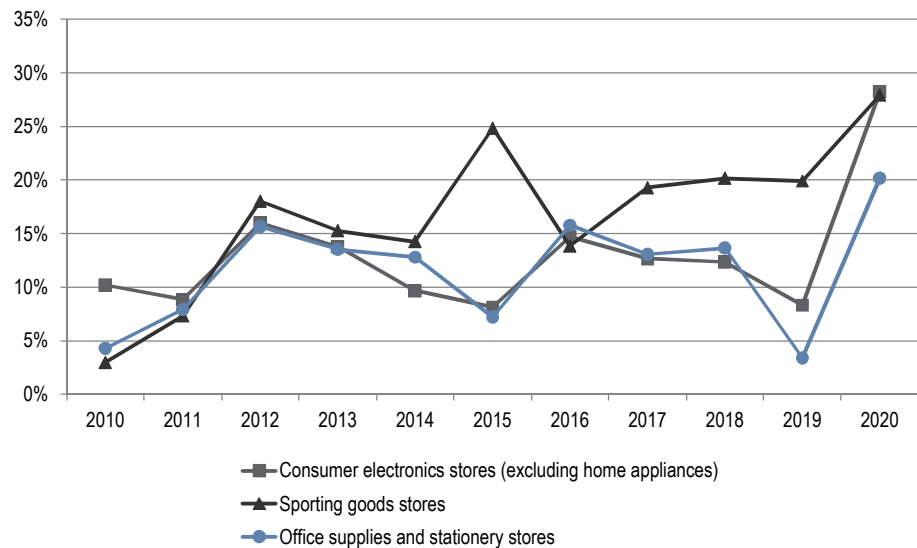
Below we use our proprietary analysis to examine how the pace of penetration growth is changing (i.e., the “second derivative”). Graphs 16 – 18 below show the penetration rate acceleration and acceleration in individual categories (i.e., the slope of the line).

Figure 21: Home Improvement Saw the Highest Growth Rate, Followed by Furniture & Home Furnishings and Clothing & Accessories



Source: comScore data, U.S. Census Bureau, and J.P. Morgan estimates.

Figure 22: Growth Rates in Penetration by Other Categories, 2010-2020

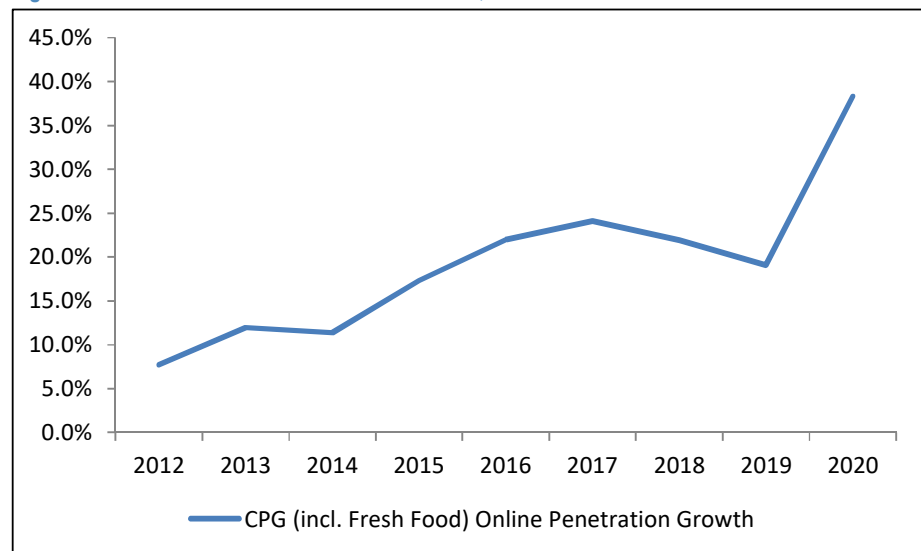


Source: comScore data, U.S. Census Bureau, and J.P. Morgan estimates.

- The charts above show that the growth in online penetration accelerated to 46% in 2020 vs. 12% LY, with penetration growth rates ranging from 20% to 95%.

- Home Improvement grew the fastest at 95%, after 8% in 2019. As shows in the Home Improvement section of this note, all categories jumped with garden and patio seeing the largest inflection (HD and LOW have ~50% BOPUS penetrations).
- Furniture & Home Furnishings follows with 63% growth this year, which is an acceleration from 18% LY.
- Both CE and Office saw acceleration in rates to 28% and 20% from 8% and 3%, respectively, in 2019.
- The growth rate in online penetration of the CPG category shot up to 38% from 19% LY. Within the subcategories, the highest growth in online penetration was in Packaged Food (79%), Alcoholic Drinks (75%), Pet Care (62%) and Fresh Food (62%). The hyper growth in Fresh Food (although online penetration remains ~4%) can be explained by major grocers expanding their assortment online, implementing multiple fulfillment options (such as click and collect; see the Discounters section in this report), and same-day delivery through third parties such as Instacart and Shipt during COVID-19. In Pet Care, the continued disintermediation of traditional B&M stores by online retailers such as Amazon and Chewy.com (acquired by PetSmart) is driving the acceleration in online penetration in the category. Packaged Food continues its growth streak although penetration remains at ~6%.

Figure 23: Online Penetration Growth Rate in CPG, 2012-2020



Source: Euromonitor and J.P. Morgan estimates.

A View from Amazon's Perspective

US E-commerce Grew at Record Pace in 2020

US E-comm 2020 Quick Look:

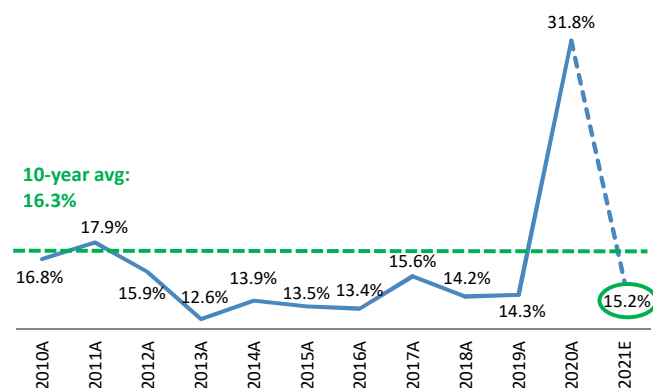
- +31.8% Y/Y growth
- 1,753 bps acceleration vs. '19
- 19.0% of adj. retail sales

US e-commerce spend grew +31.8% Y/Y in 2020 per the US Department of Commerce (unadjusted), and e-commerce represented 19% of adjusted retail sales (excluding food services, automobile & other motor vehicle dealers, and gas stations). We note this marks the 11th straight year of double-digit e-comm growth (See Figure 24), which significantly outpaces the ~2-4% annual brick & mortar sales growth during the same timeframe. As a result, e-commerce as a percentage of adjusted retail sales has grown from 6.3% in 2010 to 19%, with the ~358bps of penetration added in 2020 representing the largest ever in a single year (see Figure 25).

US e-commerce growth accelerated a record +1,753bps Y/Y & the gap between brick & mortar and e-commerce growth more than doubled from ~1,200bps in 2019 (2% and 14%) to ~3,000bps in 2020 (2% and 32%). We believe key drivers of e-commerce acceleration in 2020 included: 1) the COVID-19 pandemic pulled forward the shift toward a digitized economy, w/B&M stores either closed or consumers hesitant to shop in-person; 2) large & historically under-penetrated categories gained e-commerce traction, such as Grocery/CPG (combined penetration +300bps Y/Y to ~7% in '20); 3) AMZN continued to effectively deliver 1P & 3P products in a timely manner, though not at normal Prime speeds (Europe already back to P1D shipping); 4) traditional brick & mortar retailers shifted focus towards their-commerce & BOPIS offerings, w/WMT & TGT each growing their US e-comm platforms +80% Y/Y & +152% Y/Y in '20. However, WMT & TGT remain underpenetrated with only 11.6% & 17.9% of sales online; 5) elevated store closures – per our JPM Retail team & ICSC, there were 20k+ store closures over 2019/2020; & 6) the ongoing shift to mobile commerce, w/ US m-commerce growing +41% Y/Y in 2020 & now accounting for 32% of overall US e-commerce.

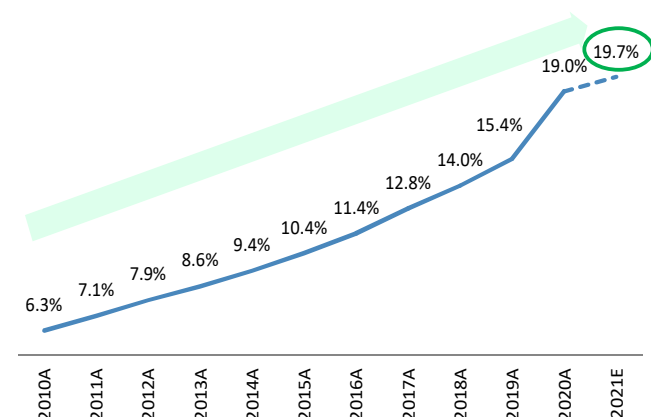
Figure 24: US E-commerce Growing at Consistent Mid-Teens % Y/Y Ex-2020

% Y/Y Growth



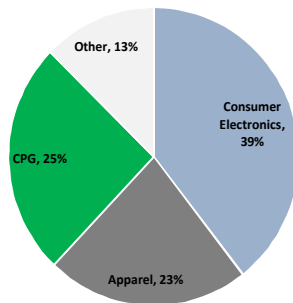
Source: US Department of Commerce (unadjusted) & J.P. Morgan estimates.

Figure 25: US E-commerce = 19.0% of Adj. Retail Sales & Growing E-commerce as % of Adjusted Retail Sales



Source: US Department of Commerce & J.P. Morgan estimates.

US E-comm by Category, 2020:



Source: comScore. Excludes event tickets.

E-commerce Penetration by Category

While US e-commerce represents 19% of adjusted retail sales, penetration varies widely by category. **On one end of the spectrum, online sales represent under 15% of overall retail sales in categories such as Consumer Packaged Goods (incl. Grocery) and Furniture / Appliances / Equipment, while more mature categories such as Books & Consumer Electronics are 50%+ online.** We estimate online penetration for each retail category in Figure 26 below, which we derive by mapping US Dept of Commerce retail sales to comScore e-commerce categories.

We believe category level analysis is helpful in framing where the biggest growth opportunities exist, as well as likely focus areas for e-commerce companies in the coming years. Key takeaways from our category level analysis: **1) Consumer Packaged Goods (including Grocery) is the largest growth opportunity across e-commerce.** CPG is the largest US retail category, the least penetrated w/only 7% of sales online, & the fastest growing online at +79% Y/Y in 2020; **2) Apparel is the 2nd largest retail category (12% of adj. retail sales) and the stay-at-home nature of COVID-19 drove a -4% Y/Y decline in 2020 Apparel & Accessories, w/online penetration of the category at 23%.** Importantly, our JPM Retail team [estimates](#) Apparel & Footwear (inclusive of B&M) is primed to rebound & grow +21% Y/Y in '21 as consumers revamp their wardrobes exiting the pandemic & return to school/work. That said, we believe large growth potential exists in Apparel & increasing its online penetration from 23% to 30% represents a significant \$34B incremental opportunity; & **3) Furniture / Appliances / Equipment represents 11% of adj. retail sales (3rd largest category), but only 7% of e-commerce spend.** Online penetration remains at 11%, but we expect this to increase considering the category grew +63% Y/Y in 2020. **Overall, we believe CPG (incl. Grocery), Apparel, & Furniture / Appliances / Equipment represent the biggest online growth opportunities & expect these categories to represent major battlegrounds for AMZN, other online, & B&M retailers going forward.**

Figure 26: US E-commerce Penetration by Category

\$ in millions

Category	2020				% of E-comm ²
	\$ Retail ¹	\$ E-comm ²	Y/Y Growth ²	% online ³	
Consumer Packaged Goods	\$1,795,893	\$121,017	79%	7%	17%
Furniture, Appliances & Equipment	\$424,206	47,491	63%	11%	7%
Jewelry & Watches	\$92,831	14,366	-5%	15%	2%
Other	\$502,267	98,619	10%	20%	14%
Apparel & Accessories	\$472,183	107,934	-4%	23%	16%
Home & Garden	\$113,897	26,249	46%	23%	4%
Sports & Fitness	\$74,484	16,913	28%	23%	2%
Flowers, Greetings & Misc. Gifts	\$38,851	11,353	40%	29%	2%
Toys & Hobbies	\$65,253	19,373	3%	30%	3%
Books & Magazines	\$34,385	14,829	-10%	43%	2%
Consumer Electronics	\$357,402	188,808	12%	53%	27%
Office Supplies	\$45,800	26,204	30%	57%	4%

Source: 1) US Department of Commerce & J.P. Morgan estimates, 2) comScore, & 3) US Department of Commerce, comScore, & J.P. Morgan estimates. Notes: Excludes Event Tickets; Consumer Electronics includes Computer Hardware, Computer Software, Consumer Electronics, Video Games / Consoles / Accessories, & Music / Movies / Videos; Other includes General Services, Online Services, & Other Products such as Arts & Collectibles and Auto Accessories.

Amazon: 2nd Largest US Retailer & 39% E-commerce Share

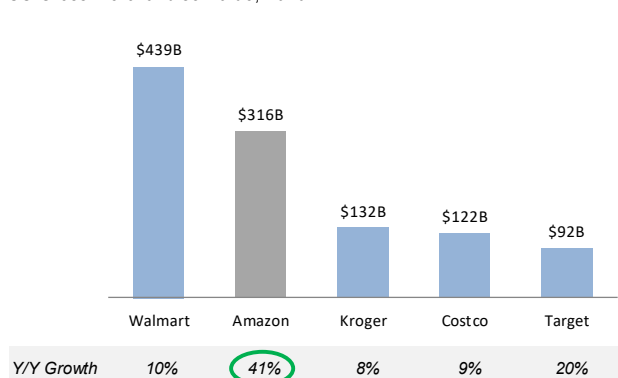
AMZN 2020 Quick Look:

- **\$316B US GMV (includes WFM), +41% Y/Y**
- **39% of US e-commerce**
- **7.9% of US adj. retail sales**

Amazon is the 2nd largest US retailer—behind Walmart—and fastest growing at scale (see Figure 27). From 2014-2020, we estimate Amazon's US GMV has grown at a ~27% CAGR, significantly faster than both US adjusted retail sales (~4% CAGR) and US e-commerce (~17% CAGR). Over the same timeframe, we estimate Amazon's share of US e-commerce grew from 24% in 2014 to 39% in 2020, while its share of total adj. retail sales increased from 2.3% to 7.9% (see Figure 28). **Based on current estimates, we believe AMZN could surpass WMT to become the largest US retailer in 2022.** We note AMZN does not disclose GMV, and as such our numbers are estimates, even for historical periods.

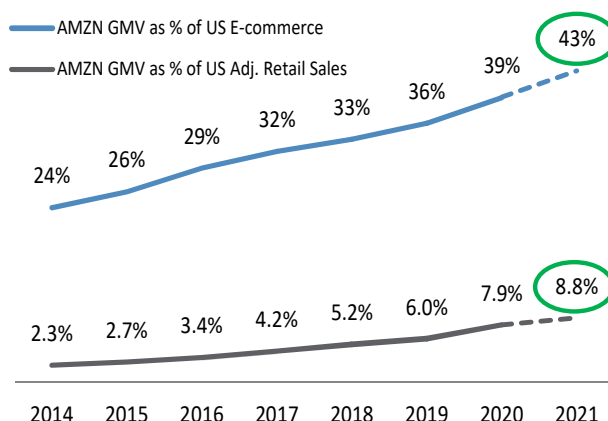
Amazon was a beneficiary of the shift to a more digitized economy during the pandemic, accelerating topline growth +37% FXN Y/Y in 2020 & expanding its share of US e-comm +356bps Y/Y to ~39%. We estimate AMZN's US GMV reached \$316B in 2020 (+45% Y/Y ex-Whole Foods), an acceleration from an estimated +22% growth in 2019, translating to 1.25x+ the rate of US e-commerce and ~6x+ the rate of adj. retail sales. AMZN's impressive ability to drive consistent top-line growth at large scale is largely driven by: **1) outsized growth in large, under-penetrated categories (i.e. CPG/grocery & Apparel)** as AMZN continues to remove friction & move closer to customers with initiatives such as free 2-hour grocery delivery from Amazon Fresh & Whole Foods in 2,000+ US cities & towns; **2) the Prime flywheel**, with AMZN announcing it surpassed 200M+ global subs in April 2021; & **3) strong 3P seller growth driving selection expansion**. On average, 3P = 54% of global units in 2020 & reached a record high 55% of global units in both 4Q20 & 1Q21. Looking forward, we expect the return of PID in the US (already back in Europe) to drive further supply chain efficiencies during 2021. However, we expect growth deceleration following record topline expansion amidst the COVID-19 pandemic. As such, we model 2021 revenue growing +25% FXN Y/Y & US GMV of \$394B (+26% Y/Y ex-WFM).

Figure 27: AMZN = #2 Largest & Fastest Growing Scaled US Retailer
US Gross Merchandise Value, 2020



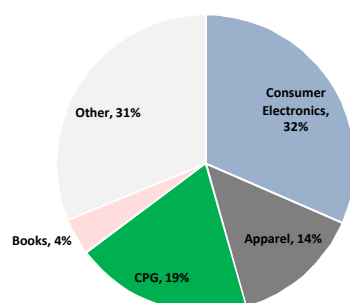
Source: J.P. Morgan estimates & company reports. Notes: 1) AMZN includes Whole Foods; AMZN GMV grew +45% Y/Y ex-Whole Foods; 2) WMT is FY21 (ending 1/31/21) revenues; includes Sam's Club; excludes online 3P GMV; 3) COST is FY20 (ending 9/1/20); 4) KR is FY20 (ending 1/31/21).

Figure 28: Amazon US GMV as % of US Retail & E-commerce



Source: US Department of Commerce & J.P. Morgan estimates. Note: Historics represent estimates as Amazon does not disclose US GMV.

Amazon US GMV, 2020:



Source: J.P. Morgan estimates.

Amazon Penetration by Category

Since launching with books in 1995, Amazon has expanded into virtually all retail categories. While we estimate Amazon has a 39% market share of overall US e-commerce spend, its penetration by category varies widely. In Figure 29 below, we estimate Amazon's share of US e-commerce by category. *We used multiple inputs to drive our category estimates including our view of whether Amazon is over/under indexed relative to its overall market share & to what degree, third party data (i.e. comScore, eMarketer, & Euromonitor), the sales of leading retailers in each category, & our industry conversations.*

Relative to Amazon's 39% overall US e-commerce market share, **we believe AMZN is most underpenetrated in Jewelry & Watches (~25% share) & Flowers / Greetings (~25% share), and we believe Amazon indexes highest in Books & Magazines (~80% share) & Consumer Electronics (~50% share).** To determine which categories represent the biggest growth opportunities for Amazon, we think it is helpful to look at both the size of the overall retail category & where AMZN is most under-penetrated. **We believe Amazon's biggest growth opportunities are in Consumer Packaged Goods (incl. Grocery), Apparel & Accessories, and Furniture / Appliances / Equipment.** These three categories combined represent ~2/3rds of overall adj. retail sales & current online penetration lags at ~10%. Therefore as shown in Figure 29, even as AMZN over-indexes on its share of online CPG/Grocery, the category is so large and at such low online penetration (7% in 2020) that it remains the biggest potential source of growth for AMZN.

Figure 29: Amazon's Share of US E-commerce by Category

\$ in millions

Category	E-comm Spend	AMZN Share of E-comm	AMZN GMV in 2020		AMZN Category Penetration vs. AMZN's E-comm Share
			By Category	% of GMV	
Books & Magazines	\$14,829	80%	\$11,864	4%	Over
Consumer Electronics	188,808	50%	94,404	32%	Over
Consumer Packaged Goods	121,017	48%	57,483	19%	Over
Toys & Hobbies	19,373	45%	8,718	3%	Over
Apparel & Accessories	107,934	39%	42,094	14%	In-Line
Office Supplies	26,204	39%	10,219	3%	In-Line
Other	98,619	39%	38,168	13%	In-Line
Sports & Fitness	16,913	39%	6,596	2%	In-Line
Furniture, Appliances & Equipment	47,491	33%	15,435	5%	Under
Home & Garden	26,249	30%	7,875	3%	Under
Flowers, Greetings & Misc. Gifts	11,353	25%	2,838	1%	Under
Jewelry & Watches	14,366	25%	3,591	1%	Under
Total		39%	\$299,285		

Source: comScore & J.P. Morgan estimates. Notes: Excludes Amazon's Physical Stores revenue (Whole Foods) & Event Tickets; Consumer Electronics includes Computer Hardware, Computer Software, Consumer Electronics, Video Games / Consoles / Accessories, & Music / Movies / Videos; Other includes General Services, Online Services, & Other Products such as Arts & Collectibles and Auto Accessories.

J.P. Morgan US E-commerce Model

Below is our US e-commerce model, including our Amazon and eBay estimates. We source US retail and e-commerce spend data from the US Department of Commerce (unadjusted numbers), m-commerce data from comScore, and note all projections are J.P. Morgan estimates.

Figure 30: J.P. Morgan US E-commerce Model

\$ in millions

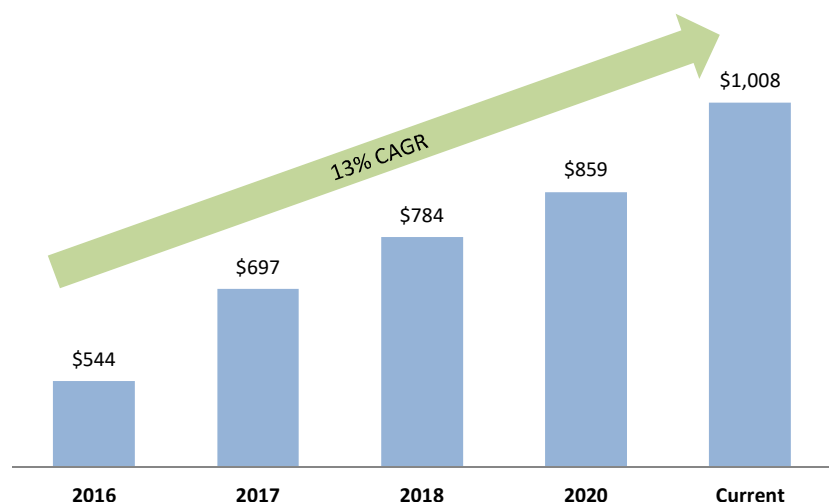
	2019A	1Q20A	2Q20A	3Q20A	4Q20A	2020A	1Q21A	2Q21E	3Q21E	4Q21E	2021E	2022E	2023E
US Retail Sales													
Retail Sales*	5,411,037	1,264,772	1,320,701	1,460,101	1,548,016	5,593,590	1,469,450	1,557,617	1,542,041	1,634,563	6,203,671	6,389,781	6,581,475
Y/Y Growth	3.0%	2.7%	-3.4%	7.0%	7.0%	3.4%	16.2%	17.9%	5.6%	5.6%	10.9%	3.0%	3.0%
Q/Q Growth		-12.6%	4.4%	10.6%	6.0%		-5.1%	6.0%	-1.0%	6.0%			
Adjusted Retail Sales*	3,755,833	902,530	959,185	1,026,775	1,128,962	4,017,452	1,021,012	1,131,250	1,084,397	1,192,081	4,455,627	4,589,296	4,726,975
Y/Y Growth	3.7%	5.9%	2.5%	10.2%	9.0%	7.0%	13.1%	17.9%	5.6%	5.6%	10.9%	3.0%	3.0%
Q/Q Growth		-12.8%	6.3%	7.0%	10.0%		-9.6%	10.8%	-4.1%	9.9%			
% of Total Retail	69.4%	71.4%	72.6%	70.3%	72.9%	71.8%	69.5%	72.6%	70.3%	72.9%	71.8%	71.8%	71.8%
US E-commerce Sales													
E-commerce Sales	578,501	141,521	193,624	191,573	235,957	762,675	196,658	208,457	210,542	263,178	878,835	1,014,196	1,167,523
Y/Y Growth	14.3%	13.8%	43.7%	36.3%	31.9%	31.8%	39.0%	7.7%	9.9%	11.5%	15.2%	15.4%	15.1%
Q/Q Growth		-20.9%	36.8%	-1.1%	23.2%		-16.7%	6.0%	1.0%	25.0%			
E-commerce as % of Adj Retail	15.4%	15.7%	20.2%	18.7%	20.9%	19.0%	19.3%	18.4%	19.4%	22.1%	19.7%	22.1%	24.7%
Y/Y Chg (bp)	143 bp	109 bp	579 bp	357 bp	363 bp	358 bp	358 bp	-176 bp	76 bp	118 bp	74 bp	238 bp	260 bp
E-commerce as % of Retail	10.7%	11.2%	14.7%	13.1%	15.2%	13.6%	13.4%	13.4%	13.7%	16.1%	14.2%	15.9%	17.7%
Y/Y Chg (bp)	106 bp	109 bp	481 bp	283 bp	288 bp	294 bp	219 bp	-128 bp	53 bp	86 bp	53 bp	171 bp	187 bp
US M-commerce Sales													
Mobile Estimate	174,594	45,641	59,320	63,403	77,040	245,404	64,019	69,833	71,584	90,796	296,233	370,182	455,334
as % of Total E-commerce	30.2%	32.3%	30.6%	33.1%	32.6%	32.2%	32.6%	33.5%	34.0%	34.5%	33.7%	36.5%	39.0%
Y/Y growth	25.5%	29.9%	54.5%	42.9%	35.9%	40.6%	40.3%	17.7%	12.9%	17.9%	20.7%	25.0%	23.0%
Desktop Estimate	403,907	95,880	134,304	128,170	158,917	517,271	132,639	138,624	138,958	172,381	582,602	644,014	712,189
as % of Total E-commerce	69.8%	67.7%	69.4%	66.9%	67.4%	67.8%	67.4%	66.5%	66.0%	65.5%	66.3%	63.5%	61.0%
Y/Y growth	10.1%	7.4%	39.4%	33.3%	30.1%	28.1%	38.3%	3.2%	8.4%	8.5%	12.6%	10.5%	10.6%
Amazon													
US GMV ex-Physical Stores**	206,414	55,122	70,174	76,064	97,925	299,285	83,160	87,710	91,308	114,876	377,054	457,345	546,835
Y/Y Growth	21.9%	30.8%	52.5%	48.4%	46.1%	45.0%	50.9%	25.0%	20.0%	17.3%	26.0%	21.3%	19.6%
Q/Q Growth		-17.7%	27.3%	8.4%	28.7%		-15.1%	5.5%	4.1%	25.8%			
% of E-commerce	35.7%	38.9%	36.2%	39.7%	41.5%	39.2%	42.3%	42.1%	43.4%	43.6%	42.9%	45.1%	46.8%
Y/Y Chg (bp)	222 bp	506 bp	209 bp	324 bp	404 bp	356 bp	334 bp	583 bp	366 bp	215 bp	366 bp	219 bp	174 bp
% of Adj Retail Sales***	6.0%	6.6%	7.7%	7.8%	9.0%	7.9%	8.5%	8.1%	8.8%	10.0%	8.8%	10.3%	11.9%
Y/Y Chg (bp)	80 bp	117 bp	233 bp	183 bp	214 bp	190 bp	192 bp	41 bp	102 bp	95 bp	97 bp	150 bp	160 bp
eBay													
US Marketplace GMV	30,742	7,631	10,489	9,790	9,624	37,534	10,393	9,440	8,909	8,662	37,404	38,526	39,604
Y/Y Growth	-7.2%	-3.7%	34.7%	33.5%	25.1%	22.1%	36.2%	-10.0%	-9.0%	-10.0%	-0.3%	3.0%	2.8%
Q/Q Growth		-0.8%	37.5%	-6.7%	-1.7%		8.0%	-9.2%	-5.6%	-2.8%			
% of E-commerce	5.3%	5.4%	5.4%	5.1%	4.1%	4.9%	5.3%	4.5%	4.2%	3.3%	4.3%	3.8%	3.4%
Y/Y Chg (bp)	-123 bp	-98 bp	-36 bp	-11 bp	-22 bp	-39 bp	-11 bp	-89 bp	-88 bp	-79 bp	-67 bp	-46 bp	-41 bp
% of Adj Retail Sales	0.8%	0.8%	1.1%	1.0%	0.9%	0.9%	1.0%	0.8%	0.8%	0.7%	0.8%	0.8%	0.8%
Y/Y Chg (bp)	-10 bp	-08 bp	26 bp	17 bp	11 bp	12 bp	17 bp	-26 bp	-13 bp	-13 bp	-09 bp	00 bp	00 bp

Source: All projections are J.P. Morgan estimates, historic US retail & e-commerce sales numbers are from the US Department of Commerce. Notes: *Retail Sales excludes food services & drinking places and Adjusted Retail Sales also excludes automobile & other motor vehicle dealers and gasoline stations; **We assume the US represents 90% of Amazon's North America GMV;***AMZN as a % of Adjusted Retail Sales includes Physical Stores (Whole Foods) GMV.

Unpacking Amazon Prime: ~\$1,000/Year in Customer Value & 200M+ Global Subs

We take another in-depth look at Amazon Prime in this section, including a deep dive into each Prime component, build-up to Prime's 200M+ global subs, and our initial sub estimates for 2021. The value of a Prime subscription has increased every year since we've been running our analysis, going from \$544 in 2016 to \$859 in 2020. **This year, we believe unbundling all of the Prime components reveals offerings worth ~\$1,000/year, ~8.5x the actual annual Prime subscription cost, and up ~17% from our estimated value of \$859 in 2020 (see Figure 31 below).** The price of Prime has been \$119/year in the US since 2Q18 when it was increased from \$99/year. With all the added benefits over the years, we believe Prime remains the best deal in shopping and we agree with Jeff Bezos that "you'd be irresponsible not to be a member." **While COVID-19 likely delayed a potential price increase in '20, we believe Amazon could increase Prime pricing as early as 2H21, partly offsetting incremental costs of enhanced 1-day shipping, Amazon Fresh/Whole Foods free shipping, & ongoing FC expansion (FC square footage +50% Y/Y in '20). We also believe Prime possesses further pricing power going forward.** For context, AAPL (covered by JPM Telecom & Networking Equipment Analyst Samik Chatterjee) recently launched its Prime comparable, Apple One Bundle, which provides various pricing tiers (see Figure 32) at a premium to Prime for access to Apple Music, Apple TV+, Apple Arcade, iCloud, Apple News+ & Apple Fitness+. However, we believe Prime provides a higher value offering relative to Apple One Bundle, which should provide AMZN w/pricing power going forward. **Turning to subs, Amazon recently disclosed Prime exceeded 200M global paid subs, with the historic ~51M net adds the largest annual gain in AMZN's history.** Despite its scale, we believe there is plenty of runway for continued Prime sub growth, and **we estimate global subs will reach ~237.5M in 2021 driven by outsized Int'l growth.** We believe Amazon is only ~16-28% penetrated within its existing Int'l Prime footprint (20 countries), compared to ~75% in the US, with potential for expansion to additional countries over time.

Figure 31: We Believe the Value of Prime Has Increased from ~\$545 in 2016 to ~\$1,000 Today



Source: J.P. Morgan estimates.

Figure 32: Apple One Bundle Pricing Tiers

Individual

\$14.95/mo.

Save \$6/mo.**

🍏 Music
🍏 tv+
🍏 Arcade
🍏 iCloud 50GB

Family

\$19.95/mo.

Save \$8/mo.** Share with
up to five other people.

🍏 Music
🍏 tv+
🍏 Arcade
🍏 iCloud 200GB

Premier

\$29.95/mo.

Save \$25/mo.** Share with
up to five other people.

🍏 Music
🍏 tv+
🍏 Arcade
🍏 iCloud 2TB
🍏 News+
🍏 Fitness+

Source: Company Website.

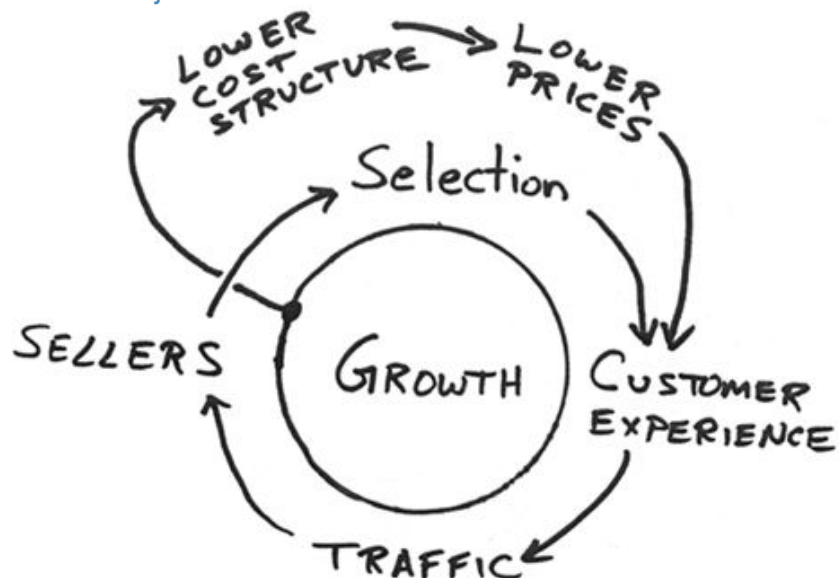
Prime – A Brief History

Prime Annual Cost Changes in the US:

- **2005: \$79**
- **2014: \$99**
- **2018: \$119**

Amazon initially unveiled Prime in 2005, offering unlimited two-day shipping on ~1 million items for \$79/year. Following more than a decade of significant investments and innovations, Prime has expanded well beyond two-day shipping and into an all-you-can-eat physical retail/digital media hybrid program. Prime today has expanded to include same-day free shipping on ~3M+ items, 1-day free shipping on ~10M+ items, and 2-day free shipping on ~100M+ items. We highlight the membership continues driving incremental value in other verticals, w/AMZN operating a streaming video service rivaling Netflix, Disney+, and Hulu, a streaming music service rivaling Spotify and Apple Music, & photo storage rivaling iCloud and Google Drive, among other offerings. **While unlimited, fast free shipping remains the key driver of growth, we believe Prime's digital services help drive adoption and improve retention.** Importantly, members continue adopting Prime Video at a rapid pace, w/175M+ Prime members streaming shows/movies in 2020 & streaming hours up +70% Y/Y in 2020. Per our estimates, Amazon Music has reached ~70M global users & the podcast launch in September 2020 has strengthened engagement, w/Prime members currently consuming millions of podcast hours each month. **Importantly, whether joining Prime for free shipping or to watch an Amazon original series, Prime is a key driver of the Amazon flywheel and helps Amazon build a loyal customer base.**

Figure 33: Amazon Flywheel



Source: Company reports.

AMZN's Prime Sub Disclosure:

- **2013:** Tens of millions of subs
- **2014:** +53% Y/Y sub growth
- **2015:** +51% Y/Y sub growth
- **2016:** Tens of millions of new subs
- **2017:** More new subs than any prior year, both global & US
- **4/18/18:** Exceeded 100M paid subs globally
- **1/30/20:** Exceeded 150M paid subs globally
- **4/15/21:** Exceeded 200M paid subs globally

Prime Sub Build-Up and 2021 Estimates

Amazon announced Prime exceeded 200M global paid subscribers in its [2020 letter to shareholders](#), above our prior estimate of 180M global subs. Based on this disclosure, in Figure 34 below we estimate Prime's build-up to ~237.5M subs in 2021, including the US and International split since 2015. Key takeaways include: **1)** We believe Prime subs grew ~65% since 2018, from 121M at year-end 2018 to ~200M+ today; **2)** We estimate Prime subs are currently split ~40/60 between the US and Int'l; **3)** We believe Int'l subs should continue growing notably faster than US subs into 2021. We estimate Int'l subs grew ~45% in 2020 vs. ~21% in the US, driven by Amazon's launch of Prime in 8 new countries from 2017-2020 (Australia, Mexico, the Netherlands, Luxembourg, Singapore, United Arab Emirates, Brazil, & Turkey) & continued strength in India (Prime launched in 2016).

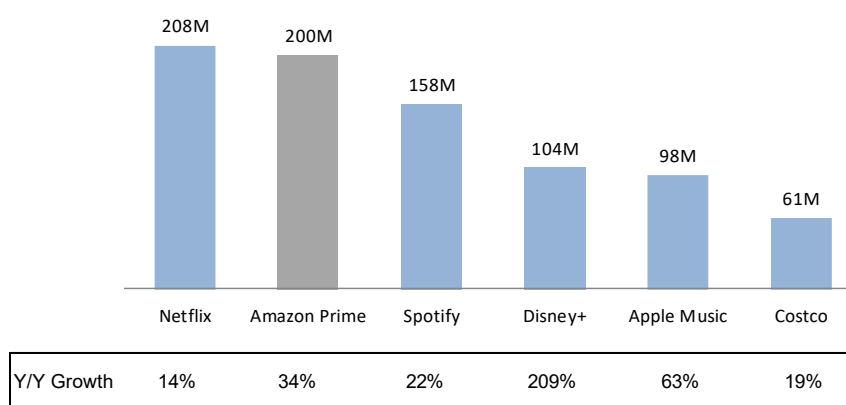
Looking forward, we believe Amazon possesses substantial bandwidth for additional Prime member growth especially in international markets, as the company continues scaling the offering. We estimate Prime subs will reach ~237.5M in 2021, implying ~92M US subs & ~146M Int'l subs, underpinning Prime's positioning as one of the most scaled & fastest growing global subscription offerings (see Figure 38).

Figure 34: We Believe Prime Will Have ~237.5M Global Subs in 2021

	2015	2016	2017	2018	2019	2020	2021
US Prime Members	30,000	39,300	49,125	58,459	67,228	81,345	91,920
Y/Y growth	47%	31%	25%	19%	15%	21%	13%
New US Subs	9,592	9,300	9,825	9,334	8,769	14,118	10,575
International Prime Members	20,000	31,700	45,875	62,541	81,772	118,655	145,580
Y/Y growth	57%	59%	45%	36%	31%	45%	23%
New Int'l Subs	7,296	11,700	14,175	16,666	19,231	36,882	26,925
Global Prime Members	50,000	71,000	95,000	121,000	149,000	200,000	237,500
Y/Y growth	51%	42%	34%	27%	23%	34%	19%
New Global Subs	16,887	21,000	24,000	26,000	28,000	51,000	37,500

Source: JPMe & Company filings. Note red numbers indicate actuals & blue numbers indicate JPMe.

Figure 35: Comparison of Select Global Subscription Offerings



Source: Company filings & JPMe. Note: Includes paid subs only, where available.

Prime Broadband Household Penetration:

- **US:** ~75%
- **Int'l:** ~16%
- **Int'l ex-China:** ~28%

- **We believe Prime is underpenetrated in Int'l markets today, which represents a big growth opportunity.** Prime is offered in 20 int'l markets, which we estimate represent a TAM of ~723M broadband households (see Figure 36). Based on our estimate of ~119M Int'l subs today, **we believe Prime is ~16% penetrated within its existing 20 international markets, or ~28% excluding China, well below the US market at ~75% penetration. Increasing Prime's penetration in existing Int'l markets (ex-China) from ~28% to ~40% would represent ~51M potential new subs.** We believe there are many more markets Prime could potentially expand into over-time, as evidenced by AMZN launching the Polish marketplace, Amazon.pl, in March to offer Polish consumers 100M+ products across 30+ verticals. Meanwhile, Amazon Business is serving 5M+ businesses & generated \$25B annualized global sales in '20 & Fire TV possesses 50M+ global MAUs, indicating high consumer appetite for Prime on a global basis.

Figure 36: We Estimate Prime's ~119M Int'l Subs Represent ~28% Penetration ex-China, ~16% incl. China

Country	Prime Launch	Annual Membership Cost		Country Demographics		Estimated Households Online
		Local	USD	Households	% Population Online	
 United Kingdom	2007	£79	\$111	28	89%	25
 Germany	2007	€ 69	\$84	42	89%	37
 Japan	2007	¥4,900	\$45	54	91%	49
 France	2008	€ 49	\$60	29	77%	22
 Italy	2011	€ 36	\$44	28	74%	21
 Spain	2011	€ 36	\$44	19	88%	17
 Canada	2013	CAD 79	\$65	15	90%	13
 Austria	2014	€ 69	\$84	4	85%	3
 India	2016	INR 999	\$14	293	41%	120
 China	2016	CNY 388	\$61	486	62%	299
 Belgium	2016	€ 49	\$60	5	85%	4
 Mexico*	2017	MXN 899	\$46	36	65%	23
 Netherlands	2017	€ 49	\$60	8	90%	7
 Luxembourg	2017	€ 49	\$60	0	97%	0
 Singapore	2017	SGD 36	\$27	2	85%	2
 Australia	2018	AUD 59	\$46	9	85%	8
 UAE	2019	AED 140	\$38	2	81%	1
 Brazil	2019	BRL 89	\$18	67	71%	47
 Turkey	2020	TRY 95	\$11	25	71%	18
 Saudi Arabia	2021	SAR 140	\$37	6	83%	5
Total - Int'l				1,159	59%	723
Total - Int'l ex-China				673	57%	424

Source: Company data, Euromonitor International, The World Bank & JPMe. Notes: *First year Prime cost is MXN 449; USD price is based on FX rate as of 6/9/2021.

Recent Prime Enhancements:

- **21k+ TV/film content pieces added to Prime Video via the MGM acquisition**
- **Exclusive Streaming rights to the NFL's *Thursday Night Football* slate, starting in the 2023 season**
- **Prime Music now includes podcast offerings**
- **Pick-up now available at Whole Foods' 500+ US stores**
- **Amazon Key: In-Garage delivery available in 5,000+ US cities/towns for grocery**

The Best Deal in Shopping

We believe unbundling all of the Prime components reveals a package of offerings worth ~\$1,000/year, ~8.5x the actual \$119 annual Prime subscription cost, and up ~17% from our estimated value of ~\$860 in 2020 (see Figure 37). We believe Prime delivers unparalleled scale and features that would be very difficult for any company to replicate and compete against, and Amazon continues to increase the value of Prime by adding benefits and scaling existing offerings. Throughout the pandemic, AMZN has remained focus on scaling its logistics footprint while maintaining an efficient supply chain. In 2020, AMZN invested ~\$11.5B towards COVID-19 related costs & increasing FC square footage +50% Y/Y. For Prime, we believe the expanded supply chain should enable AMZN to return to Prime one-day & same-day shipping at larger scale, thereby increasing the value of a Prime membership. **New Prime benefits over the past year are highlighted by an expanded Prime Video content slate via the MGM acquisition (adds 21k+ of film/TV content) & exclusive streaming access to the NFL's *Thursday Night Football* starting in the 2023 season, as well as new podcast offerings on Prime Music.** Additionally, Amazon expanded Whole Foods pickup to all 500+ Whole Food stores throughout the US & Amazon Fresh/Whole Foods delivery is available in ~5k+ cities/towns via Amazon Key. While Amazon has not increased the price of its annual Prime membership in the US since 2018, when it was raised from \$99 to \$119, we believe the pandemic delayed an inevitable price increase. That said, we believe a potential Prime price increase could come as early as 2H21 & expect AMZN to maintain pricing power in the L-T considering AMZN continues enhancing the subscription's value proposition.

Figure 37: Unpacking the Value of Amazon Prime

Amazon Prime Component	Service	Price	Estimated Prime Value		Change in Value from 2020
			Annual	Monthly	
1 Prime Delivery: 2-Day, Same & 1-Day Free Shipping	Walmart	\$98/year, \$12.95/month; no minimum order size	\$265	\$22.08	↑
	ShopRunner	\$79/year; \$25-\$59 minimum order size			
	Shipt	\$99/year, \$14/month; \$35 minimum order size			
2 Prime Now	Postmates Unlimited	\$99.99/year, \$9.99/month	\$300	\$20.99	↑
	Instacart Express	\$99.99/year, \$9.99/month			
3 Prime Video	Netflix	\$8.99-\$17.99/month	\$132	\$10.99	↑
	Hulu	\$5.99/month (ads), \$11.99/month (no ads)			
	HBO Max	\$9.99/month (ads), \$14.99/month			
	Disney+	\$7.99/month			
	Apple TV+	\$4.99/month			
	Peacock	\$4.99/month (ads), \$9.99/month (no ads)			
	Discovery+	\$4.99/month (ads), \$6.99/month (no ads)			
4 Prime Music	Paramount+	\$4.99/month (ads), \$9.99/month (no ads)	\$72	\$5.99	↑
	Spotify Premium	\$9.99/month			
	Apple Music	\$9.99/month			
	Youtube Music	\$9.99/month			
	Pandora Premium	\$9.99/month			
	Deezer	\$9.99/month			
	Amazon Music Unlimited	\$9.99/month (non-Prime members)			
5 Prime Photos	iCloud	Free up to 5GB; \$0.99/month for 50GB, \$2.99/month for 200GB, \$9.99/month for 2TB	\$24	\$1.99	↔
	Google Photos	Free up to 15GB			
	Google One	\$1.99/month for 100GB, \$2.99/month for 200GB, \$9.99/month for 2TB			
	Amazon Drive	\$19.99/year for 100GB, \$59.99/year for 1TB			
	Dropbox	Free up to 2GB; Plus for 2TB \$11.99/month or \$199.98/year			
6 Amazon First Reads & Prime Reading	Flickr	Free up to 1k photos/videos; Pro \$6.99/month or \$59.99/year	\$108	\$8.99	↔
	Kindle Unlimited	\$9.99/month			
	Scribd	\$9.99/month			
7 Twitch Prime	Twitch Turbo	\$8.99/month	\$108	\$8.99	↔
	Twitch Channel Subscription	\$4.99/month			
Estimated Value of Prime			\$1,008	\$80	
Actual Prime Cost			\$119	12.99	
Multiple of Prime Value			8.5x	6.2x	

Source: JPMe & company websites. Notes: 1) Red numbers indicate the estimated value driver; 2) Select Prime benefits are limited to members in certain geographies (e.g., Same & 1-Day Free Shipping is currently available in 10k+ cities/towns, Prime Now is available in ~110 US cities, WFM delivery through Prime Now is available in most Prime Now cities.

Prime Offering Components

- **1) Unlimited 1-day free shipping on 10M+ items & unlimited 2-day shipping on ~100M+ items.** We highlight Amazon has increased the selection of available 1-day free shipping items by 10x from ~1M+ to ~10M+ since 2018. Additionally, AMZN 1-day shipping is currently available in 10k+ (+25% vs. 2018) US cities & towns while same-day delivery on 3M+ items is available in 47 major metropolitan areas & 2k+ cities/towns for grocery. **Importantly, AMZN expanded total fulfillment center square footage +50% Y/Y in 2020, w/the company now operating ~237 US fulfillment center facilities (see Figure 39).** Per MWPVL, AMZN's US logistics footprint spans ~280M square feet (see Figure 39) as of June 2021, vs the ~294M North America "fulfillment, data center, & other" square footage (ex-corporate office space & WFM) reported in AMZN's most recent 10k. **We note AMZN's global "fulfillment, data center, & other" square footage (ex-corporate office space & WFM) reached ~402M square feet in 2021, +50% Y/Y.** On P1D, AMZN invested ~\$1B+ per quarter in Prime 1-day expansion dating back to 2Q19 before the COVID-19 pandemic's onset. As such, units sold via same-day or 1-day shipping quadrupled Y/Y in 4Q19. As same-day & P1D shipping demand continuing to grow, we highlight the strong value proposition has driven an increase in consumer order frequency.
- The COVID-19 pandemic clearly impacted Amazon's fulfillment capabilities, with delivery windows pushed out for many products, especially for discretionary products. As such, AMZN invested ~\$11.5B in 2020 towards COVID-19 related costs & the +50% FC square footage expansion. We highlight AMZN added ~500k employees last year, including 175k fulfillment & delivery network employees hired in 1H20, & continues improving fulfillment center efficiency in a COVID-19 safe manner (2Q OI guide includes ~\$1.5B COVID-19 related costs). As such, Amazon slowed the rollout of incremental P1D investments during the COVID-19 pandemic. However, we note AMZN still experienced strong demand with *total* unit growth accelerating from +32% Y/Y to +44% Y/Y in 1Q21. Exiting the pandemic, we highlight P1D delivery has returned in Europe & we expect Prime 1-day shipping to resume in the US during 1H21. Going forward, Amazon anticipates continuation of strong demand for same-day & one-day delivery and expects the offerings to comprise a larger percentage of total unit sales. Notably, AMZN currently delivers 50%+ of packages, which should further de-risk the supply chain & truncate delivery times going forward. With Prime Day slated for June 21-22 & indexing towards 1P sales, we remain confident Prime 1-day & 2-day free shipping will be restored in the upcoming months. **For Prime Day 2021, we are modelling ~\$6B incremental revenue & total revenue of ~\$8B (Figure 38), driven by a +26% Y/Y increase in 3P revenues as SMBs increasingly look to leverage AMZN's expansive platform.** More broadly, Prime 2-day free shipping is still available to virtually all addresses in the continental U.S. with ~100M+ items available, & free same-day delivery is available on ~3M+ items on qualifying orders over \$35. Additionally, Amazon Key is now available in 5k+ cities & towns, & Prime members can choose Key for Garage in addition to Home, Car, & Gate. **We highlight Key also includes deliveries from Amazon Fresh & Whole Foods.**

Figure 38: J.P. Morgan 2021 Prime Day Estimates

2021 Prime Day GMV & Revenue Build	
3P Sales	\$4,400
Take Rate (incl. FBA)	27.5%
3P Revenue	\$1,210
% Prime Day Sales 3P	38%
1P Revenue	\$7,179
Total Prime Day Revenue	\$8,389
Total Prime Day GMV	\$11,579
2Q21E AMZN Retail Revenue	\$100,342
2Q21E ex-Prime Day Retail Revenue	\$91,953
2Q21E Retail Revenue per day ex-Prime Day	\$1,033
Prime Day <i>Incremental</i> Revenue	\$6,323

Source: Company reports & J.P. Morgan estimates.

- We value AMZN's unlimited free shipping options at \$265/year, up from our prior value of \$200/year due to: 1) continued adoption & scaling of Prime 1-day & same-day delivery; 2) 50% Y/Y FC square footage expansion & increased headcount should drive higher supply chain efficiencies & truncate delivery times; 3) Amazon's 10x increase in selection of 1-day eligible items since 2018; 4) significant expansion of garage delivery via Amazon Key; & 5) Prime's more scaled same-day & 1-day delivery relative to competition.

Figure 39: Amazon's US Logistics Footprint

Type of Facility	Current	Announced
Fulfillment Centers, Supplemental Centers, & Return Centers	237	101
Pantry / Fresh Food FCs	21	1
Whole Foods Retail Grocery DCs	13	-
Prime Now Hubs	55	1
Sortation Centers	87	28
Delivery Stations	427	274
Airport Hubs	17	3
Total #	857	408
Total Square Feet	280M	139M

Source: MWVPL.

- **We believe there are no comparable unlimited free shipping offerings available at scale, with Amazon's large and growing infrastructure investments serving as a significant barrier to entry. We view ShopRunner and Shipt as the most relevant unlimited free shipping alternatives, though each operates at significantly smaller scale.** FedEx acquired ShopRunner in 2020 & the platform offers a \$79/year membership that includes unlimited free 2-day shipping on millions of products from 100+ retailers (e.g., Neiman Marcus, Bloomingdale's), and Shipt offers same-day delivery from select retailers (e.g., Target, Costco, CVS) in 5k+ cities. Target bought Shipt for ~\$550M in 2017, and Shipt has continued to add additional retailer partners to its marketplace since then. We note our Amazon 2-day and same & 1-day free shipping value of \$265 is 2.5x+ the value of Shipt (\$99/year) and 3.25x+ the value of ShopRunner (\$79/year), which we believe is appropriate given Prime's much greater scale, faster shipping speeds, and lack of a minimum order size.
- **Walmart has scaled its shipping offerings to better compete against Prime.** Walmart [offers](#) free 2-day shipping on more than two million items (we note this is as of Jan'17, as WMT has not provided an updated number since then) and same-day shipping on a smaller assortment. **We note Walmart [launched](#) its Prime counterpart, Walmart+, in September.** Walmart+ costs \$98/yr or \$12.95/month & offers unlimited free next-day & two-day shipping [without](#) a minimum order size (AMZN does not have a free shipping minimum). We acknowledge Walmart continues to enhance membership model & free shipping offerings, which could commoditize free shipping. However, Prime operates at a larger scale and offers free shipping on a significantly higher quantity of items. As such, we believe commoditization places greater importance on same-day & one-day delivery at great scale as Prime's differentiating factor.
- **2) Prime Now** is available for members in [110 US cities](#), offering unlimited free two-hour delivery on tens of thousands of items through a dedicated mobile app and website. However, we note Amazon is [eliminating](#) the stand-alone Amazon Prime Now platform by year-end & is integrating Prime Now offerings into the primary Amazon domain, which should streamline the discovery process for consumers. Prime Now also offers 1-hour delivery for \$7.99 & delivery from select local stores (e.g., Westside Market NYC, Pet Food Express, Fresh Thyme). **Amazon also offers Whole Foods delivery in almost every city in which Prime Now is available & expanded pick-up optionality to all of WFM's 500+ US storefronts. Additionally, Prime members using Amazon Key in 5k+ cities & towns can leverage In-Garage delivery for their Amazon Fresh/Whole Foods deliveries, up from 50 cities/towns last year.** We note that Prime Now has continued to expand internationally, with the service now available in 52 cities in six countries outside the U.S. (see Figure 40 below), and we expect this expansion to continue. Amazon also offers Prime members free use of Amazon Fresh, which is now available in over 2,000 cities. The 2-hour grocery delivery service previously cost \$14.99/month in addition to the Prime membership. Finally, we highlight Amazon increased grocery delivery capacity 160% during COVID-19 & tripled grocery pickup locations while online grocery sales tripled Y/Y in 2Q20. As such, it is evident COVID-19 accelerated the secular shift to online grocery delivery, a trend which we expect to persist & benefit AMZN going forward. We value Prime Now at \$20.99/month, up from \$19.99/month in 2020, given 1) platform consolidation should improve discovery process & drive higher demand; 2) persisting secular shift to online grocery delivery expansion of In-Garage grocery via Amazon Key to

5k+ cities/towns; 3) broader expanding geographic reach; 4) supply chain build-out should improve delivery efficiencies; 5) expansion of Whole Foods delivery to more zip codes; & 6) free inclusion of Amazon Fresh.

- **We believe Postmates Unlimited (\$9.99/month) & Instacart Express (\$9.99/month) serve as the most relevant comps for valuing Prime Now.** Postmates Unlimited offers unlimited free delivery on orders from ~600k+ merchants and serves 80% of US households across all 50 states. Importantly, we believe UBER's acquisition of Postmates in 2020 gives Postmates access to UBER's ~98M MAPCs (as of 1Q21) , thereby expanding Postmates reach & allowing the platform to more effectively compete with AMZN's significant scale. We note Postmates has ~500k couriers and has an average delivery time of ~35 minutes. Instacart Express offers unlimited free 1-hour delivery from over 600 retailers and is available to more than 85% of households in the U.S. Instacart closed a \$265M funding round in March that valued the company at ~\$69B. Additionally, DoorDash's DossPass (\$9.99/mo) serves as a secondary comp & provides its 5M+ subscribers (at 3Q20) with \$0 delivery fees & reduced service fees on \$12+ orders from participating merchants. We believe Amazon's acquisition of Whole Foods has served as a catalyst for Instacart's growth, with large grocers including Kroger, Albertsons, & Costco partnering with Instacart to strengthen their delivery capabilities. The price of Instacart Express was lowered from \$14.99/month to \$9.99/month in Nov '18 in order to better compete with Amazon. We note our Prime Now value of \$20.99/month is ~2x the price of both Instacart Express and Postmates Unlimited at \$9.99/month. We believe this is appropriate given the inclusion of Amazon Fresh & Prime Now within the AMZN platform, AMZN's expanding geographical reach & supply chain build-out, & AMZN's wider assortment of available items.

Figure 40: Prime Now Is Available in 6 Countries Outside the U.S.

Country	# of Cities	Cities
France	4	Paris, Lyon, Nice, Bordeaux
Germany	3	Berlin, Munich, Frankfurt
Italy	3	Rome, Milan, Turin
Japan	1	Tokyo (20 wards)
United Kingdom	34	Various
Spain	7	Various
Total	52	

Source: Company website.

Figure 41 below summarizes the shipping benefits included in an Amazon Prime membership for addresses in the Contiguous U.S.

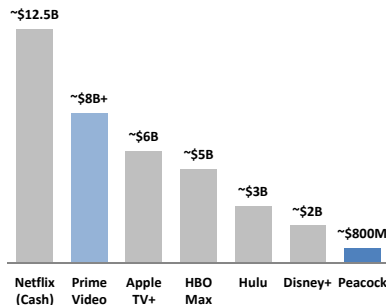
Figure 41: Summary of Amazon Prime Shipping Benefits

Shipping speed	Amazon Prime member price
One-Day Shipping	Free
Two-Day Shipping	Free
Same-Day Delivery	Free on qualifying orders over \$35 in certain cities or \$2.99 per order. See Order with Prime FREE Same-Day Delivery .
Saturday Shipping	Price varies by item size and weight, as low as \$7.99 per item.
Amazon Day Delivery	Free
No-Rush Shipping	Free
Standard Shipping (4–5 business days)	Free
Release-Date Delivery (on qualifying items)	Free

Source: Company website.

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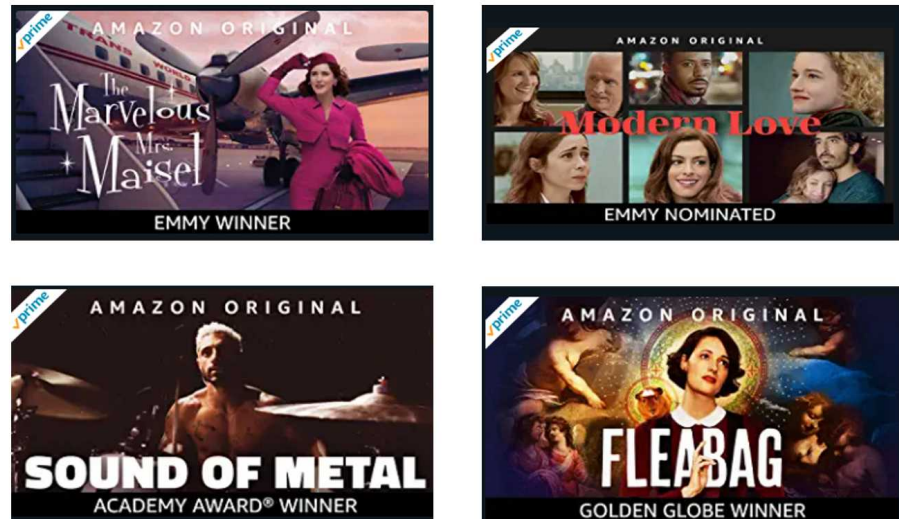
Figure 42: 2020 Content Spend by Platform



Source: Company data & JPMe.

- 3) Prime Video** offers unlimited streaming of thousands of movies and TV shows, including licensed content, Amazon originals, & select live sporting events (e.g., *NFL Thursday Night Football*). We believe AMZN is investing heavily in video content through organic growth, as well as M&A. **Specifically, the recent \$8.45B acquisition adds MGM's ~21k+ TV/film content library, including unscripted TV content.** Likewise, AMZN will now pay \$1B/yr for Prime Video to hold exclusive streaming rights to the NFL's *Thursday Night Football* slate, starting in the 2023 season. As such, we think AMZN is committed to scaling Prime Video into a product that is competitive with the top tier of OTT players, with Amazon's primary goal to drive Prime member adoption & retention, along with incremental ad revenue. **We highlight AMZN's investments have started to pay off, w/175M+ Prime members currently engaged w/Prime Video content & Prime Video streaming hours increasing +70% Y/Y in '20.** We estimate Amazon spent ~\$8B+ on content in 2020 and is based on AMZN's 10k disclosure of ~\$11B combined Video/Music spend, Which will likely ramp significantly in 2021 following the recent MGM acquisition. We note this is double Hulu's estimated ~\$3B 2020 content spend and ~33% more HBO Max's ~\$5B estimated content spend for 2020, though well below NFLX's \$12.5B of cash spend in 2020 & our estimated ~\$17B NFLX cash spend for 2021. Amazon has invested in a growing number of Prime Originals, including recent well-received series & movies such as *The Marvelous Mrs. Maisel* (20 Emmy Awards; S4 release in 2H21/2022), *Fleabag* (6 Emmy Awards, 2 Golden Globe Awards), *Sound of Metal* (2 Oscar Awards), *One Night in Miami* (3 Academy Award nominations), & *Modern Love* (1 Emmy nomination). See Figure 43 below for select notable Amazon Originals. In addition to unlimited streaming of movies & TV series, we note Prime Video also offers subscribers access to Prime Video Channels (option to add-on subscriptions to 100+ channels such as CBS All Access, HBO, & Showtime), premium features such as 4K Ultra HD & HDR, and mobile downloads for offline viewing of select content.
- We value Prime Video at \$10.99/month, up \$1 from prior \$9.99, equating to \$3/month less than Netflix's \$13.99/month Standard Plan. AMZN continues ramping content spend & scaling the platform (MGM acquisition), which we believe could lead to a Prime price increase this year or next.** We remain encouraged by AMZN's decision to ramp content spend & acquire opportunistic streaming assets (MGM) but believe the content library is still more limited relative to Netflix, particularly on originals, and therefore a discount to NFLX is warranted. We note our \$10.99/month value represents a 27% discount to HBO MAX (\$14.99/month) & an 8% discount to Hulu (\$11.99/month ex-ads).

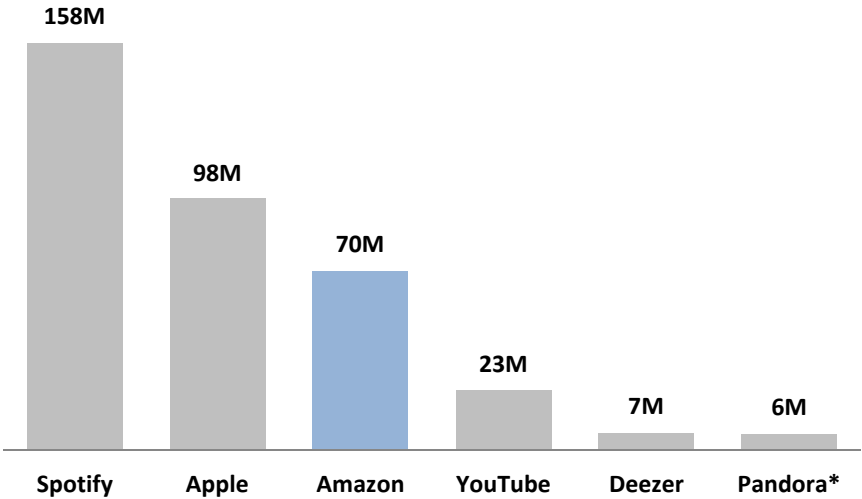
Figure 43: Critically Acclaimed Amazon Originals



Source: Company website

- **4) Prime Music** offers an app with unlimited on-demand, ad-free streaming of ~2M songs and ~1k+ playlists and stations. Prime Music also provides members with the ability to download music for offline playback, unlimited skips, & Alexa integration. Importantly, AMZN launched podcasts in September & acquired podcast publisher Wondery in December. With SPOT citing strong growth in global music streaming consuming hours, as well as podcast engagement, over the past few quarters, we remain bullish on AMZN's music opportunity. **Considering the accelerated secular shift towards music streaming & AMZN's recent podcast initiatives, we value Prime Music at \$5.99/month, a \$1 increase from prior \$4.99. We believe AMZN's more limited library of ~2M songs warrants a 40% discount to the \$9.99/month subscription cost of other on-demand, ad-free streaming music platforms that offer 40M-70M+ songs:** Spotify Premium, Apple Music, Deezer, YouTube Music, & Pandora Premium. We note our \$5.99/month value is more comparable to Pandora Plus (\$4.99/month), which we believe is a better comp from a value perspective as the service offers a bigger library at ~40M songs, but not on-demand listening. Amazon also offers Amazon Music Unlimited, which has a much larger library of ~70M+ songs and is more comparable to the \$9.99/month offerings. **We estimate Amazon Music possesses ~70M global subscribers considering the COVID-19 pandemic accelerated the secular shift to music streaming.** Prime members qualify for discounted Amazon Music Unlimited plans, with the service costing \$9.99/month for non-Prime members, \$7.99/month or \$79/year for Prime members, and \$3.99/month for an Echo-only plan.

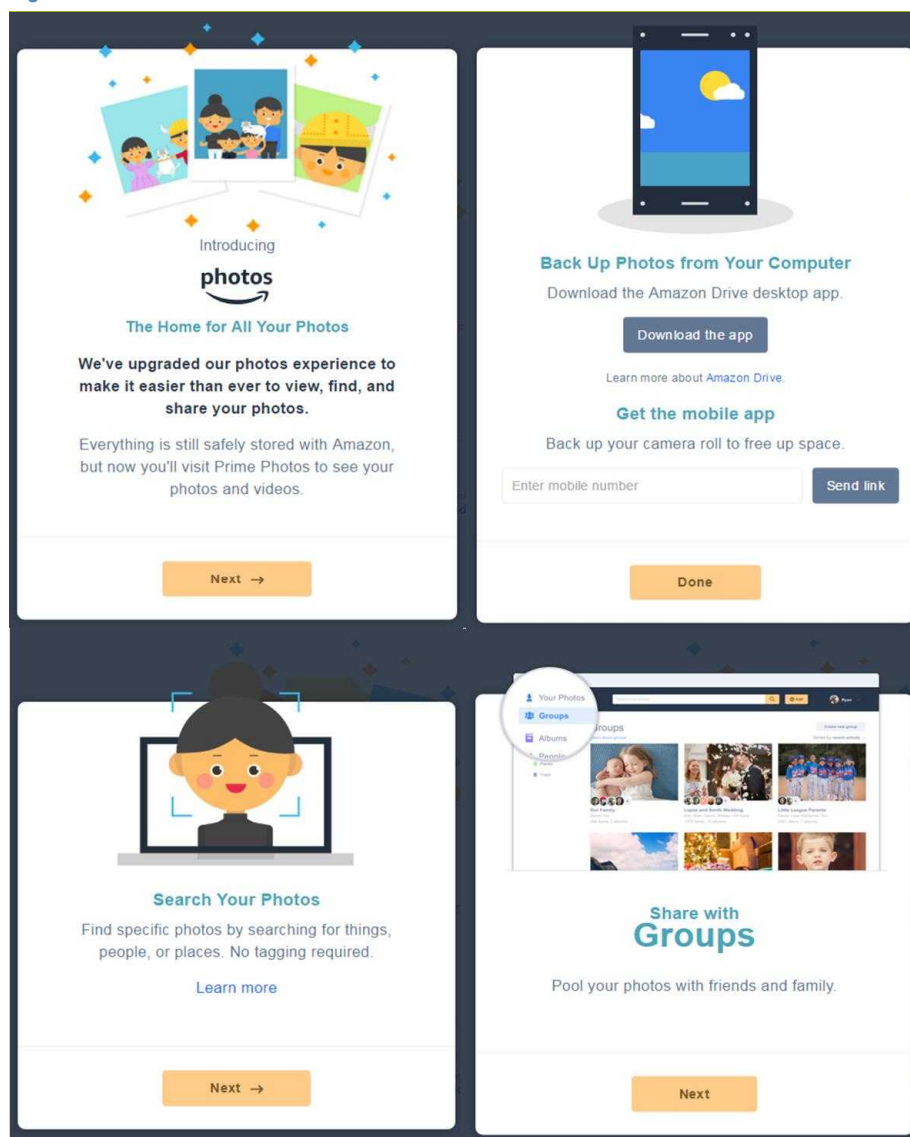
Figure 44: Major Music Streaming Company Subscribers



Source: Company data, Counterpoint Research, & JPMe. *Includes both Pandora Plus and Pandora Premium

- **5) Prime Photos** provides free unlimited photo storage, including a Prime Photos mobile & web app for photo backup, the ability to share free unlimited photo storage with up to 5 people, & 5 GB of video & file storage to Prime subscribers. **We value Prime Photos at \$1.99/month, no change from our prior value.** We believe this is in-line with competitor pricing, as iCloud charges \$0.99/month for 5-50GB of storage and \$2.99/month for 50-200GB, Google Photos offers free unlimited photo & video, though at compressed quality, up to 15 GB. Beyond 15 GB, Google One offers storage up to 100GB for \$1.99/month. Other competitors such as Dropbox and Flickr charge \$11.99/month and \$6.99/month for their paid offerings. We note Amazon offers a separate storage subscription offering, Amazon Drive, which costs \$59.99/year for 1 TB of storage.

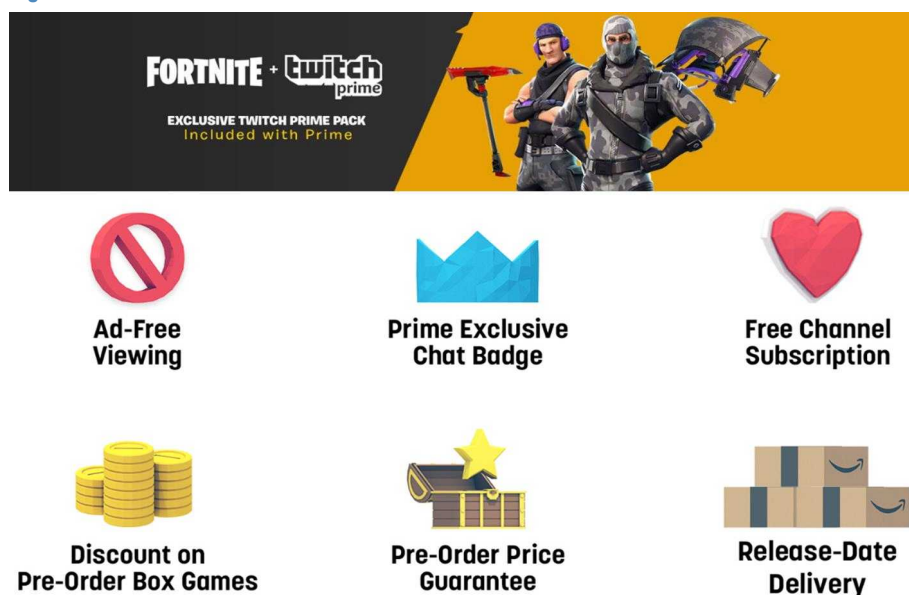
Figure 45: Prime Photos Screenshots



Source: Company website.

- 6) Amazon First Reads and Prime Reading.** After Kindle Owners' Lending Library (KOLL) was discontinued in January 2021, Prime's reading benefits consist of Amazon First Reads & Prime Reading. Amazon First Reads, previously called Kindle First, allows Prime subscribers one free book download per month from one of various editors' picks a month before the official publication date. First Reads does not require a Kindle device (content is available through the Kindle app) and also provides exclusive prices on hardcover editions. Prime Reading offers unlimited reading from a rotating selection of 1k+ Kindle books, magazines, and more and does not require a Kindle device. **We value Amazon First Reads and Prime Reading at a combined ~\$8.99/month, no change from our prior value.** We believe a modest discount to Kindle Unlimited (\$9.99/month for unlimited reading of 1M+ titles & thousands of audiobooks) is warranted given the one book/month limit for Amazon First Reads & a more limited Prime Reading library. We also value it at a slight discount to Scribd (\$9.99/month) which offers unlimited books and audiobooks from a library of 1M+ books.
- 7) Twitch Prime** offers ad-free viewing across Twitch, one free Twitch channel subscription every month (\$4.99/month value), 5+ new free games each month, member access to game content, free in-game loot, exclusive emoticons, expanded chat options, & a member-only Prime chat badge. **We value Twitch Prime at \$8.99/month, unchanged from 2020.** We believe this is appropriate as it is in-line with the cost of a Twitch Turbo subscription (\$8.99/month), which offers essentially the same benefits as Twitch Prime, and comes at a premium to a \$4.99/month Twitch channel subscription, which is included as one component of a Twitch Prime membership.

Figure 46: Select Twitch Prime Benefits



Source: Company website.

- **Additional Offerings:** Prime membership comes with many other perks that we list below, but **we do not place any dollar value on these when estimating Prime's overall value to a subscriber:**
 - 1) Eligibility for the Amazon Prime Store card, which earns 5% back on all Amazon.com purchases, Amazon Prime Rewards Visa card, which earns 5% back on all Amazon.com & Whole Foods purchases (vs. 3% for non-Prime cardholders), & Amazon Secured Card, which earns 2% back on Amazon.com, Amazon Fresh, etc.
 - 2) Exclusive discounts on select video games, PC hardware, & more, savings on pre-order box games when shipped & sold by Amazon, & Amazon's pre-order price guarantee.
 - 3) Deals and discounts through Amazon Family, including up to 20% off diapers, baby food, & more through Subscribe & Save and 15% off eligible baby registry products.
 - 4) Prime Wardrobe—order up to 8 items across clothing, shoes, and accessories at no upfront charge, try on at home, take seven days to decide which items to return for free, and only pay for what you keep. Prime members can also leverage Personal Shopper by Prime Wardrobe, a \$4.99/mo service whereby AMZN sends up to 8 monthly curated clothing choices.
 - 5) Amazon Pharmacy—provides both Prime & non-Prime members the ability to purchase prescription medications online w/home delivery in 45 states; Prime members receive free two-day shipping on prescriptions fulfilled via Amazon Pharmacy.
 - 6) Prime Rx— discount card allowing Prime Members to save up to 80% on generic & up to 40% on brand prescriptions from 60k+ pharmacies (including Amazon Pharmacy) regardless of whether they possess an insurance policy.
 - 7) Voice shopping for millions of Prime-eligible items through Alexa.
 - 8) Access to Amazon Elements, Amazon's private label line of everyday essentials.
 - 9) Amazon Dash for Prime.
 - 10) 30-minute early access to Lightning Deals.
 - 11) Share select Prime benefits with another adult, teen, or child in your household.

Additional Prime-exclusive delivery offers:

- 12) Free release-date delivery for eligible pre-order items (e.g., select video games, books, music, & movies).
- 13) Earn shopping rewards & discounts on millions of items when selecting free no-rush shipping that arrives within 6 business days (all Amazon customers are eligible to receive discounts, but only Prime members are eligible to receive reward offers).
- 14) Free delivery on special items, including hundreds of thousands of items that are large, heavy, or require special handling.
- 15) Receive everyday discounts on expedited shipping options such as one-day shipping, on millions of items.
- 16) Amazon Day, where you can schedule which day of the week you would like items delivered

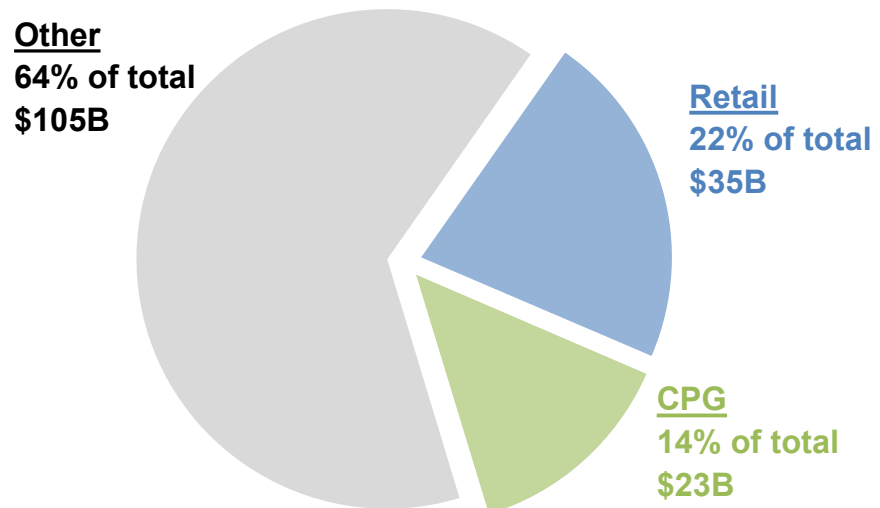
Amazon Advertising: Big Growth, Big Margin, Big Opportunity

With COVID-19 accelerating overall e-comm penetration & the shift toward a digitized economy, advertising has emerged as a bigger focal point for retailers, many of which are eager to follow Amazon's lead and capture a piece of the large & growing online advertising TAM. **Importantly, the advertising opportunity for Amazon & fellow retailers remains substantial from a revenue perspective as well as from a potential margin tailwind viewpoint.** The online advertising TAM is large--\$160B+ in the US--with the retail & CPG verticals combined estimated to account for ~36%+ of US online ad spend in 2021, or ~\$58B (see Figure 47). On the profit side, online advertising is a higher margin revenue stream, with online advertiser gross margins typically ~80%+ and operating margins ~40%+. While Google and Facebook remain the clear online advertising leaders with a 65%+ combined share of global online ad dollars (see Figure 48), Amazon has rapidly scaled its ad business over the past few years and has established itself as the third scaled digital ad platform. **Amazon's global advertising revenue grew from ~\$1B in 2014 to ~\$18B in 2020, and we believe there is significant runway for further growth with the business expected to scale towards ~\$28B in 2021** (see Figure 49). Importantly, we believe the success of Amazon's advertising business highlights some key advantages AMZN & retailers have over GOOGL & FB, with Amazon's ad business providing a blueprint for success that retailers could potentially follow.

Below we take a closer look at Amazon's advertising business.

Figure 47: Retail + CPG Verticals = 35%+ of US Online Advertising Spend

US Online Ad Spend by Industry, 2021E



Source: eMarketer. Note: CPG includes consumer products.

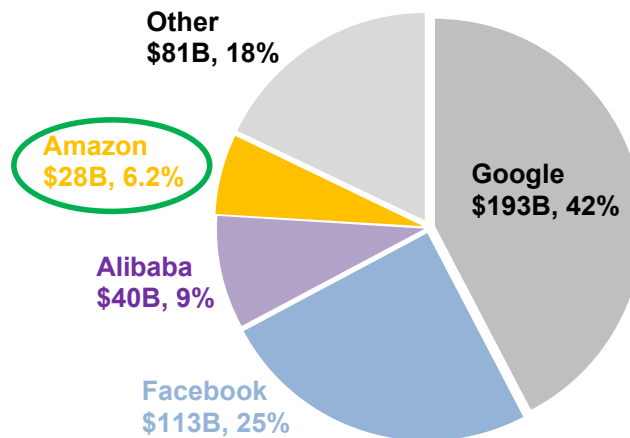
Closer Look at Amazon Advertising

Advertising is Amazon's fastest growing—and likely highest margin—revenue stream. **Amazon's ad business has grown significantly from \$1.8B in 2015 to \$18.3B in 2020, which implies a +58% CAGR. Looking forward, we project ad revenue of \$28B in 2021 (+55% Y/Y) & \$36B in 2022 (+28% Y/Y).** See Figure 49 for our 2015-2023E AMZN ad revenue estimates. **Importantly, advertising is a higher margin revenue stream (See Figure 50), and applying a conservative ~42% operating margin implies AMZN's ad business could represent ~35% of the company's overall operating income in 2021, or ~\$12B.**

While AMZN's ad business has scaled rapidly, we believe there is still room for significant growth as: **1) AMZN's share of global online ad dollars remains small at 6.2%** (see Figure 48). Google & Facebook remain the significant market leaders with a combined 65%+ share of global online ad spend. We project Google Net Ad Revenue of \$193B in 2021 (+29% FXN Y/Y, 42% of global spend) & FB Ad Revenue of \$113B (+32% FXN Y/Y, 25% of global spend); **2) Retail is the largest US online ad vertical at ~22% of overall spend, & CPG = ~14% of overall spend...AMZN is underpenetrated.** We estimate AMZN has a 33% share of US online retail/CPG ads vs. its 39% share of US e-commerce spend, implying a potential ~\$3.5B+ ad revenue opportunity in the US. Over time, we believe AMZN likely helps expand online retail ad spend, with early Amazon ad dollars partly coming from retail / in-store / trade budgets in our view; & **3) We believe Amazon is well positioned as the third scaled digital ad platform given some distinct operational advantages in advertising:** A) AMZN customers are effectively standing in the store when on the site or app (i.e. very high intent); B) AMZN has significant customer purchase history & data; & C) AMZN has nearly complete ability to close the loop between an ad & transaction. We also highlight the growing Prime Video & Prime Music platforms present AMZN with further advertising opportunities as ad dollars shift from PayTV & traditional radio to video/music streaming services. While we believe AMZN is the fastest growing scaled online publisher, we do not believe the company has the same potential number of advertisers long-term as GOOGL & FB, and therefore do not expect it to be as large as the top 2 players. Over time AMZN could become more inventory constrained, which makes new surfaces such as streaming video content/sports increasingly important.

Figure 48: Amazon's Share of Global Online Ad Spend Remains Small at 6.2%

2021E, \$ in Billions

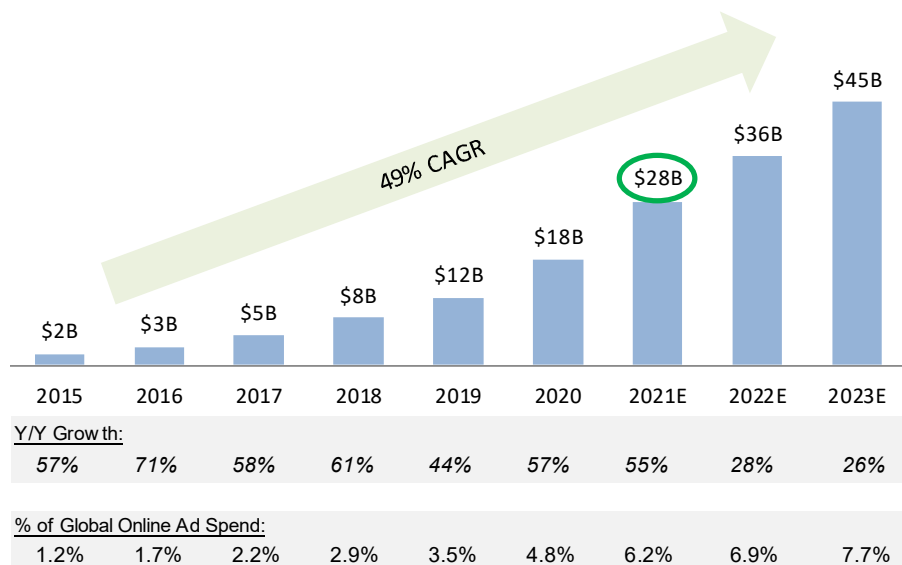


Source: J.P. Morgan estimates & eMarketer. Note: GOOGL includes net ad revenue.

- Amazon Advertising Estimates.** Amazon includes ad revenue in its “Other” segment, which primarily includes revenue from advertising services and co-branded credit card agreements. **We believe ad revenue represents the significant majority of Amazon’s “Other” revenue, which was ~\$21.5B in 2020.** We assume advertising accounts for ~85% of “Other” revenue, which implies \$18.3B of ad revenue in 2020 (see Figure 49). We note AMZN made an accounting change in 1Q18 that provides better visibility into the size of its ad business, with first-party ad sales now recognized as “Other” revenue vs. previously recorded as contra-cost. This accounting change added ~\$3B to reported “Other” revenue in 2018, and while AMZN did not re-state its financials, our 2015-17 ad estimates include estimated first-party ad sales.

Figure 49: Amazon's Ad Business is Growing Rapidly...We Project \$28B Revenue in 2021

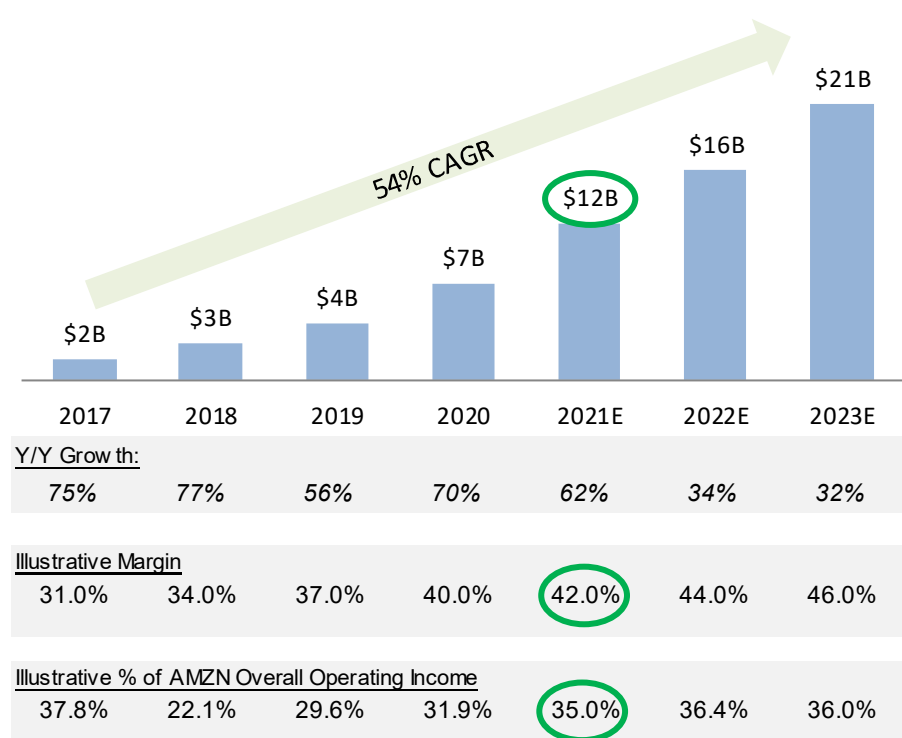
\$ In Billions



Source: J.P. Morgan Estimates & eMarketer.

Figure 50: J.P. Morgan Amazon Advertising Operating Margin Overview

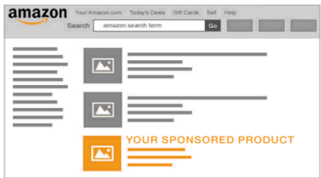
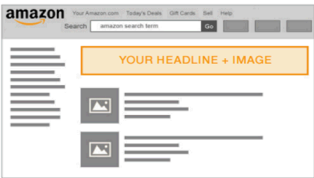
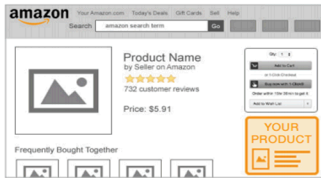
\$ in Billions



Source: Company reports & J.P. Morgan estimates.

- Amazon's Ad Products.** Amazon has three primary ad units available on Amazon properties: **1) Sponsored Products**, **2) Sponsored Brands**, & **3) Product Display Ads**. **We believe Sponsored Products represent the majority of Amazon's ad revenue today, though Sponsored Brands are likely growing the fastest.** See Figure 51 below for a comparison of these ad products. Amazon also has a demand-side platform, Amazon DSP, which offers programmatic buying of display ads & video ads across Amazon and non-Amazon sites & apps. Additionally, AMZN offers Store, a dedicated self-serve, curated brand destination on Amazon, to sellers enrolled in Amazon Brand Registry at no additional cost. We note video ads are available both within video content (i.e. in-stream) & as a creative element of a display ad.

Figure 51: Comparison of Select Amazon Advertising Units

	Sponsored Products	Sponsored Brands	Product Display Ads
Placement	Search results Product detail pages	Search results Product detail pages	Product detail pages Customer review pages Merchandising emails
Cost	Cost-per-click	Cost-per-click	Cost-per-click
% of Ad Revenue	~70-75%	~20-25%	~5%
Availability	1P vendors 3P sellers	1P vendors 3P sellers	1P vendors
Devices	Desktop & mobile	Desktop & mobile	Desktop, mobile, & apps
Example			

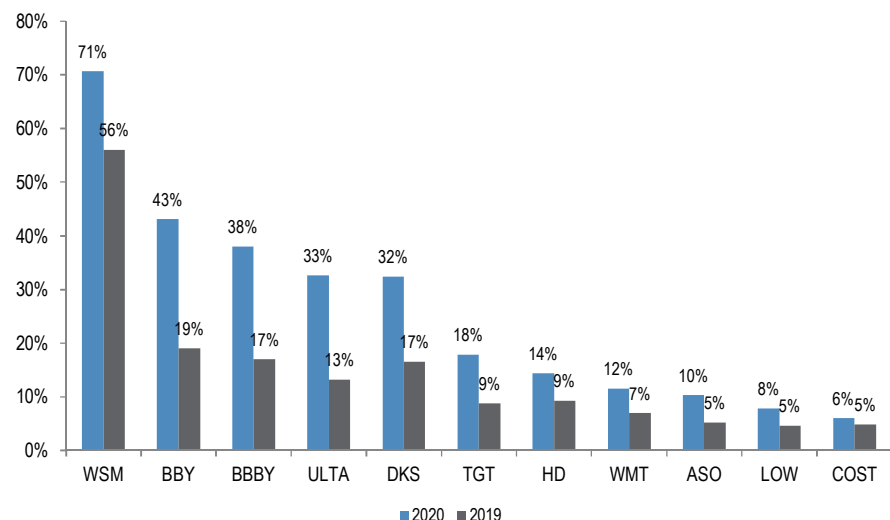
Source: J.P. Morgan estimates, Amazon website.

Current Standings: Omni-channel Winners and Losers

Now that we have an understanding of growth rates in online sales by category and how penetration is accelerating or decelerating, we can compare these with our retailers' online growth rates and mix in 2020.

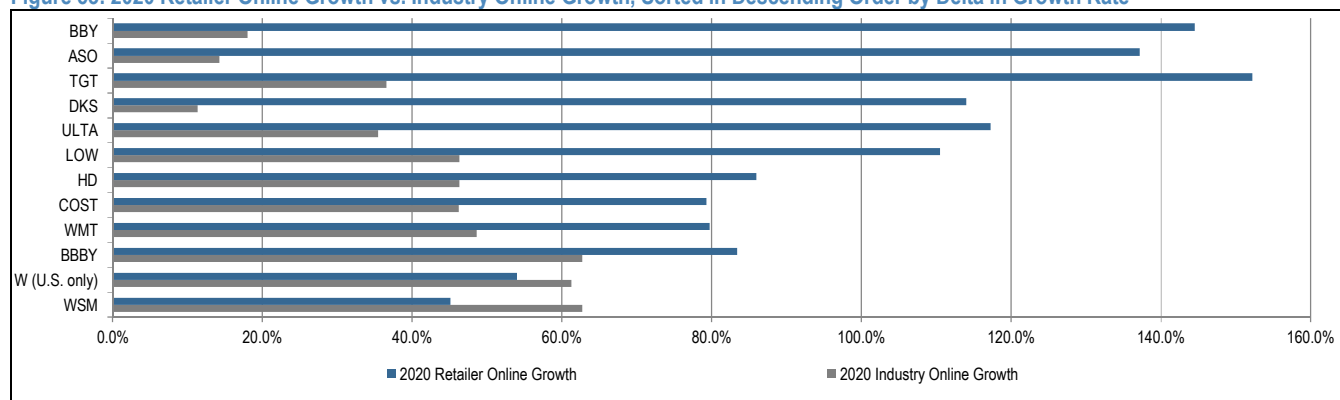
BBY logged the biggest leap in online penetration growth YOY at 43% in 2020 vs. 19% in 2019, followed by BBBY (38% vs. 17%), ULTA (33% vs. 13%), and DKS (32% vs. 17%). Despite WSM's >50% online penetration pre-COVID-19, it's penetration further moved up at 71% in 2020, emboldening the company to lean on e-commerce in the coming years as it plans to shutter 25% of its store base over the next five years.

Figure 52: E-commerce Penetration as a % of Sales; 2020 vs. 2019



Source: Company reports, and J.P. Morgan estimates. *Note our best estimate for online percentage of sales was made using a combination of company data, interviews, and industry data.

Figure 53: 2020 Retailer Online Growth vs. Industry Online Growth, Sorted in Descending Order by Delta in Growth Rate

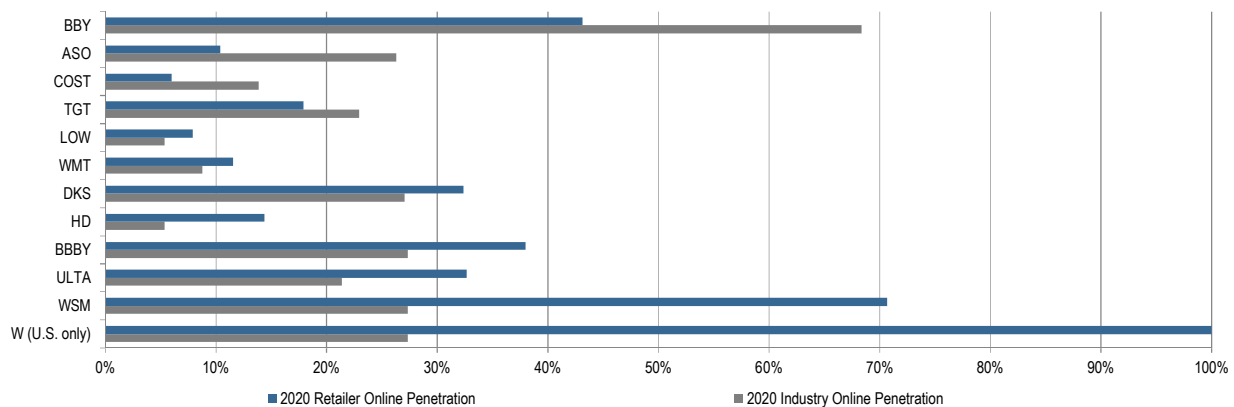


Source: Company reports, J.P. Morgan estimates. *For W, we used a blended growth of HF and HI category growth online

E-commerce sales of most of our coverage outpaced their respective industry's rate with the exceptions of W (US only) and WSM. BBY, ASO, and TGT significantly outpaced the growth in their respective categories (the differentials range from 116% to 127% above).

- BBY's swift pivot to curbside pick-up at the start of the non-essential store lockdown drove its outperformance in the category as it logged 145% growth online vs. the industry's 18%. ASO grew 137% online vs. the category's 14%. TGT's impressive 152% growth online vs. industry's 37% came despite the stores being deemed essential and allowed to operate throughout the pandemic, which points to TGT's strong share gains across both channels and massive popularity of its Drive-Up option. WMT's 80% online growth vs. category's 49% was impressive too as we believe it gained market share in the gen merch category (while losing some in the grocery category).
- DKS and ULTA also outperformed the respective category online growth rates with DKS's gap at 103% and ULTA's at 82%, respectively.
- HD and LOW also outperformed but LOW's was higher with 64% growth vs. the category against HD's 40%. LOW continues to improve its omnichannel platform as it looks to catch up to HD.
- **However, the growth for WSM and W lagged the industry by a wide margin ranging. Note, RH no longer discloses store vs. DTC sales mix.** On W, it grew an impressive 54% in the US, but fell short of the industry's 63%, while WSM grew 45% online.

Figure 54: Retailer Online Penetration vs. Industry Online Penetration, Sorted in Descending Order by Delta in Penetration Rate



Source: Company reports, Top 500 Guide, ComScore, U.S. Census Bureau, and J.P. Morgan estimates.

The BBY Case Study: How a Retailer Can Win

As has been the case since our inaugural report in 2013, we believe the “death of the big box due to AMZN” thesis is strongly reminiscent of the bear thesis that also once dominated the investment conversation: the first all-in-one-shopping, price-focused, product-commoditizer Walmart. In our view, the simplistic AMZN view looks past the relevance of this analogy, the power of omni-channel, and retailers’ ability to adapt. **Certainly, Prime is a much more competitive weapon than Walmart ever had, however, gaps are closing and well-capitalized retailers that can invest (and absorb the margin degradation) can be winners, though there isn’t a finish line.**

Many specialty players won at their own game. Walmart has beaten down many grocers/local merchants, but big box specialty and even direct competitors (e.g., COST and TGT) thrived despite the relentless tide of “rollbacks.”

Moreover (and importantly), technology is a regressive tax on smaller players who can’t invest, which opens the door for market share for those that do aggressively (e.g., BBY, HD, WMT, TGT, and TSCO) against smaller and/or lagging peers). COVID-19 increases the degree of how regressive as consumer expectations for delivery and curbside took a step function higher. Said another way, the existential risk is overblown for many big box retailers, in our view.

In assessing retailer risk, we use two key lenses: (1) product cycle and (2) vendor behavior.

- **Product Cycles Matter.** Specialty retail generally wins during periods of innovation and share threats rise during commoditization. The poster children of encroachment had significant product issues that opened the door for AMZN. For books/package media/office, consumption went digital. For electronics, it was the crescendo of a once-in-a-generation product cycle that rapidly turned negative as replacement periods lengthened and product proliferation turned to convergence on smart phones.
- **Retailers Were Ill-Prepared.** We believe the rapid adoption of e-commerce in the 2000-15 period took retailers by surprise.
- **Best Buy Case Study.** At their heart, big box retailers offer price and assortment leadership along with the convenience of stores. First, as noted above, the product cycle peaked in 2008, then commoditized and converged. Simultaneously, AMZN had lower prices, more SKUs, free shipping, held a 5-10% tax advantage, and customers didn’t have to leave the couch to get it. In the case of BBY, the combined price advantage was as high as 20-25% on a Sony or Samsung TV (*which is double trouble given the durable, branded, and big-ticket nature of the product*). Essentially, AMZN was able to attack the big box table-stakes, while BBY was left trying to understand what had happened, in our view. *Please see our 2013 report for an [in-depth case study on Best Buy](#) and the product/capability issues it faced that allowed AMZN’s encroachment.*
- **Vendors are critical!** Asian-based electronics manufacturers didn’t protect BBY on pricing or channel manage inventory allocation initially, but then that changed. Indeed, as we note to the bears, as long as EL and L’Oreal protect ULTA, the online risk is contained.

Online Grocery, Next-Day, and the Last Mile

COVID-19 Expedited Online Grocery Adoption; WMT Leading While TGT Embarking on Front-end Remodel; Others Cruising Along

Given the rapid growth of the online grocery business as consumers look for convenience and the need to defend market share, traditional B&M grocers have stepped up efforts behind grocery click-and-collect. This exacerbated at the onset of COVID-19. Below, we summarize several of the top grocers' online grocery delivery and pickup options.

Net-net, WMT leads the pack in click and collect but same-day grocery is a very even landscape given third party providers (e.g., Instacart) and considering the rapid rollout of curbside across the retail spectrum during COVID-19.

- In our view, in grocery pickup, WMT leads the pack, in terms of scale and depth as they offer the most locations (~3,800 stores currently followed by KR's 2,223 locations at the end of fiscal 2020; Kroger is covered by JPM's Ken Goldman).
- **TGT stepping up its Drive-Up offering.** TGT announced this year that about 1,000 locations' front-ends will be remodeled to add freezers and coolers over the next three years to enable perishable pick-up. Note TGT already has adult beverages available for curbside pick-up.
- In the case of grocery delivery, COST/BJ/TGT/KR offer same-day delivery (the first two via Instacart, TGT through Shipt, and KR outsources the final delivery to third parties) to almost the entire US. WMT has third-party enabled delivery in ~3,800 stores in 200 markets covering 70%+ of the US population and recently launched Express Delivery to deliver orders in less than two hours which was rolled out to ~3,200 stores. AMZN/WFM now has delivery in 2,000+ cities.
- **Kroger's digital offering has several fulfillment options.** For click-and-collect (curbside pickup), Kroger has traditionally fulfilled orders with in-store labor. For same-day delivery, the company outsources to third party providers (e.g. Instacart). For next-day delivery, KR has traditionally relied on third-party providers in most markets (though it has a long-standing internal offering in Denver). This is beginning to shift to internal fulfillment with the rollout of its automated customer fulfillment centers (CFCs) with Ocado. The first two CFCs opened this year in Ohio and Florida, and a total of 20 targeted locations are planned over the next several years. Kroger will handle delivery via its own fleet of vans.

Figure 55: Curbside and Grocery Fulfillment Landscape

Company	Pickup Service	# of Pickup Locations	Pickup Fee	Minimum Spend for Pickup	Pick-up Times	Same-day Delivery	Same-day Delivery Fee	Same-day Delivery Partners
WMT	Curbside	3,800; eligible on >30K items (covered 80% of population in 2019)	Free	~\$30	One hour window as soon as same day	Express Delivery in 3,200 locations (70% US population) on \$35 minimum order	Free with \$98 (or \$12.95/month) membership, \$7.95-\$9.95 without membership. In-home Delivery in SE Florida, Arkansas and Atlanta (July 2021) for \$19.95/month. Express Delivery costs an additional \$10 on top of delivery fee.	3rd party delivery partners, Spark (in-house delivery provider)
TGT	Curbside	~1750 stores (excluding perishables). Expect to add perishables to 1,000 locations by 2023	Free	-	Ready within 1-2 hours	All markets (including perishables)	Free on orders >\$35 with \$99/annual fee	Shipt (acquired in 2018)
COST	In-warehouse	All warehouses (only select gen merch)	Free	-	Standard delivery time	All markets (including perishables)	Free on COST website; \$7.99/\$5.99 for Instacart (along with marked-up prices) without \$149 annual membership	Instacart
BJ	In-warehouse	All warehouses (including fresh food from August 2020)	Free	-	Within 2 hours	All markets (including perishables)	Members get club pricing with \$14.99 on BJ website; members/non-members pay markup and \$5.99 on Instacart website	Instacart
KR	Curbside	2,223 locations out of 2,742 total locations	Currently free due to COVID-19; typically \$4.95 (waived for first three orders; varies by region)	None	One-hour windows	98% of KR households and nearly 2,700 locations.	Free over \$35 and \$5 on orders below (may vary by region)	3rd party delivery partners
AMZN/WFM	Curbside	500+ Whole Foods Stores	Free for Prime Members	Free on \$35+	Within an hour (\$4.99 fee within 30 minutes)	2,000+ cities	Free on orders \$35+ with Prime Membership	Owned (Amazon Fresh, Whole Foods, & Prime Now)

Source: Company reports and J.P. Morgan estimates.

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North America Equity Research
11 June 2021

J.P.Morgan

Big Boxers Leaning on Same-Day Services Two-Year since AMZN Prime's Next-Day Delivery Announcement

In this section, we look at the delivery options available for non-food/gen merch categories of the big boxers including WMT, TGT, COST, BJ, HD, LOW and BBY vs. AMZN.

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Figure 56: Gen Merch Fulfillment Strategies of Big Boxers (BBY, BJ, COST, WMT, TGT, HD & LOW) vs. AMZN

	# of SKUs	# of Stores/Markets	Fee	Year Launched	2020 Option
Two-day delivery					
AMZN	100M+ items	Continental US	Free for Prime @ \$119/year	2005 (\$79/year for ~1M items)	Available
HD	2MM+ items	~95% of the US population	>\$45 (\$396 for appliances)	90%+ of country since 2013	Available
LOW	~2MM items	~90% of the US population for in-stock items	>\$45 (\$299 for appliances)	90%+ of country since 2014	~0.45MM SKUs available
BBY	Most items	Majority of continental U.S.	Free >\$35	-	Available
WMT	'millions of items'	Continental U.S.	Free >\$35	2017	>2MM items eligible
TGT	non-food; majority of the store	Continental U.S.	Free >\$35 (also for REDcard)	2018	Guaranteed 2-day
COST	Non-food via CostcoGrocery	Continental U.S.	Free >\$75	2017	In all US markets
BJ	No guaranteed 2-day	-	-	-	-
Next-day delivery					
AMZN	10M+ items	Continental US	Free for Prime @ \$119/year	-	Available
HD	Most in-store and in-stock items	50% of US population; 90% parcel end of 2021; big/bulky end of 2022	>\$45 (\$396 for appliances)	-	Available
LOW	Appliance only	Majority of continental U.S.	>\$299 for appliances	-	Available
BBY	Most items, excluding large TVs/appliances	60 metro areas	Free >\$35	-	60 metro areas
WMT	~350K items	75% of US population	-	-	~250K items; inventory mirroring could add 100K more in 2020
TGT	None	-	-	TGT Restock pilot in 2017	TGT Restock (up 45 lbs. box of household essentials) for \$2.99
COST	-	-	-	-	NA
BJ	-	-	-	-	NA
BOPIS					
AMZN	Most items on Amazon.com (with size & weight restrictions)	Amazon Hub Locker in 900+ cities	Free	2011	Available
HD	~2MM items	All (60% of online orders are BOPIS)	Free	2010	Available
LOW	Most categories	All (60% of online orders are BOPIS)	Free	2010	Available
BBY	Most items; some large items available after 2-3 days	All	Free	Mid 2000s	Available
WMT	Gen merch (curbside for grocery, see below)	All	Free	2011	Had 1.7K automated pickup towers that were discontinued
TGT	Non-food + adult beverage	All	Free	2013	-
COST	Laptop, handbag, jewelry etc.; standard shipping time if not in-stock	All US warehouses	Free	2018	In all US clubs
BJ	Most club items	All US warehouses	Free	2018	All clubs
Curbside pickup					
AMZN	Grocery	500+ Whole Foods stores	Free for Prime @ \$119/year	2017	150+ Whole Foods stores
HD	Available	Majority of stores	-	-	Launched in 2020
LOW	Available	Majority of stores	-	-	Launched in 2020
BBY	Most items; some large items available after 2-3 days	Majority of stores during COVID-19 lockdown	Free	2016, 2020*	Launched in 2020
WMT	Selective gen merch but expanding	3,800	Free (\$30 min.)	2016	~3,200 locations
TGT	Most in-store items, testing perishables in two markets	1,800-1,900 locations	Free	50 pilot stores in 2017	1,750 locations
COST	2,000 grocery and non-food items	Testing in 3 Albuquerque locations	\$10 fee with \$100 min. order value	2021	Not available
BJ	Most club items including fresh	All	No fee	2020	Test in select locations
Same-day delivery					
AMZN	3M+ items	47 Major metropolitan areas, 2k+ cities/towns for grocery	Free for Prime @ \$119/year	2015	47 Major metropolitan areas, 2k+ cities/towns for grocery
HD	Varies	50% of population; 90% same-/next-day by 2022	Car/van delivery starting at \$8.99	2018	50% population by car, 70% by van
LOW	Appliances only	Most markets	Free over \$396	-	Same as 2020
BBY	Most products available (no TVs/appliances) and delivered by 9 PM	All major markets	\$5.99 per order	Pilot in 2015	10+ metro areas
WMT	>160K items	From >3,200 stores	-	-	From ~1,600 stores
TGT	Available with Shipt for both grocery and gen merch	All markets; 5,000 cities	Free >\$35 with \$99/annual fee	2018	Available
COST	N/A for Gen Merch	All markets	\$5.99 2nd order onward	-	Grocery only via Instacart
BJ	N/A for Gen Merch	All markets	\$14.99	2018	N/A for Gen Merch

Source: Company reports, J.P. Morgan.

**BBY rolled out a company-wide curbside model in March 2020 due to COVID-19.

Curbside pickup now ubiquitous as all big boxers have curbside pickup options in majority of their stores, accelerated by the pandemic that drove consumers need for social-distancing.

Same-Day delivery ware intensifies amid COVID-19

- AMZN offers same-day delivery to over 2K cities for 3MM+ items.
- WMT offers same-day services from 3,200 locations on 160K+ items as part of the Walmart+ membership offering (see discounters section below for details).
- TGT offers same-day delivery service via Shipt (membership required) in over 5K cities, including a variety of in-stock gen merch items such as apparel.
- HD offers same-day services focused on top 40 markets and expects to reach 90% of population same- or next-day by 2022. LOW offers same-day services for appliances only in most markets.
- BBY offers same-day delivery for most products in all major markets.

BOPIS: all big boxers have it; COST testing curbside pick-up since this year

- All big boxers offer BOPIS in virtually all US stores, notwithstanding some category restrictions. Note WMT discontinued its ~1.7K automated pickup towers this year as curbside pickup became more prevalent.
- BJ offers BOPIC in all locations for food and non-food categories since late 2020. COST launched BOPIC in 2018 for select items including jewelry, laptops, and handbags, however, standard shipping times apply for items not in-stock in the warehouses. *COST began testing curbside pickup in 3 New Mexico locations for 2K food and non-food items beginning this year, although carries a \$10 fee and a \$100 minimum order requirement.*
- HD has pickup lockers in ~1,400 stores currently with the goal to cover the top 40 markets (80% of sales) and LOW completed the rollout of lockers to 100% of its US stores in April. Both HD and LOW also have separate BOPIS areas in the stores.
- BOPIS is the prime mode of online fulfillment for HD and LOW as 60% of online orders are currently picked up in stores. BBY offers the feature on most items except some large items that are picked up from warehouse (with the BOPIS penetration similar to HD's).
- In the case of AMZN, free pickup is available from more than 2,800 lockers across 900+ cities for items sold or fulfilled by Amazon (with height and weight restrictions) and can be picked up same-day/next-day/in two days depending on the level of Prime fulfillment options available in a particular area.

Next-day is the new 2-day as AMZN upped the game by announcing plans to evolve its Prime free 2-day shipping program into 1-day with AMZN ramping its 1-day selection and zip code coverage over the course of 2019.

- AMZN currently offers next-day delivery on 10MM+ items, which remains unrivaled considering big boxers including **HD/LOW/WMT/TGT/BBY offer well below 1MM items for next day delivery.** Among the big boxers, we see HD investing in the future and targeting to reach 90% of the population same-/next-day by 2022. The delivery speed arms race heated up in 2017 with BBY, HD, WMT, and TGT all announcing stepped up efforts to reach guaranteed two-day/same-day/next-day delivery (of varying degrees). Note, AMZN still wins in

breadth of assortment with >100MM items available for free two-day delivery in continental US with Amazon Prime subscription (\$119 membership fee per year).

- **Compared with AMZN, WMT US currently has 350K+ SKUs (JPMe) available for next-day delivery (AMZN at 10MM+).** WMT continues to add SKUs via marketplace that can now be available for two-day shipping powered by Walmart Fulfillment Services, as its website SKUs are now ~80MM (up from 75MM LY). TGT's focus remains using the stores as fulfillment hubs as ~95% of online orders in 2020 were fulfilled by the stores while same-day services grew 235% (vs. overall online growth of 152%). **Note TGT discontinued the Restock service for next-day delivery of gen merch items LY.**
- HD and LOW are "able" to reach ~95% and ~90% of the US population with two-day shipping for orders over \$45 each. HD said 90% of their parcels meet the threshold for free shipping. HD will be able to reach 90% of the population for same-day/next-day for parcel by the end of 2021 and the end of 2022 for bulky items. LOW added a new DFC in 2020 and three more YTD, which now enables it to handle two-day shipping to the majority of the US (the three added in 2021 also handle oversized shipments).
- BBY also offers free two-day shipping on most of its assortment for orders over \$35 as 80% of their small parcel orders reach within two days.
- COST offers two-day delivery for orders over \$75 on a growing selection of dry grocery, HABA, and household items (~700 items or 20% of in-club SKUs). For the remainder of its online assortment, we believe the overwhelming majority of gen merch product ships directly from vendors. Following the 1 year anniversary of the Innovel acquisition (now called Costco Logistics), management noted they are continuing to add vendors on the platform to take more direct shipping (vs. drop-ship) of larger items.

Retailers Fulfilling Online Orders Using Store Fleet with BBY, BBBY, TGT & DKS Leading; HD Building Capacity Fastest

Below we summarize the fulfillment assets utilized by retailers in our coverage to service online orders. Key points to mention:

- Most retailers are using part of their store fleet to fulfill parcel orders with BBY, BBBY, TGT and DKS leading the way with almost all US stores able to fulfill DTC orders. COVID-19 drove WMT to ship from over 3,000 locations vs. normally 110, but the number will likely settle lower in normal times. WSM is piloting ship from store this year in select locations.
- **Except for BJ, COST, and ASO, all retailers included in this analysis have dedicated fulfillment centers or retrofitted/annexed FCs adjacent to legacy DCs to fulfill online orders.** As discussed earlier, HD is building several FCs as part of their 5-year investment plan by 2022 to add to their current capacity of dedicated fulfillment centers. WMT already has 32+ campuses dedicated to fulfilling online orders and more are expected this year. COST has been servicing online orders including Costco Grocery from six depots since summer of 2019.

Figure 57: E-commerce Fulfillment Overview

Ticker	E-com Fulfillment Assets	Ship-from-store
BBBY	5 dedicated	majority of stores
BBY	1 dedicated, 3 metro e-commerce centers, 6 regional DCs with dedicated areas	All stores
BJ	None	ND
COST	ND*	~6 business depots
DKS	1 owned, 2 TP	All stores
HD	5; open a few more over 4 years	None
LOW	5 dedicated	~120 stores as of early 2020
ASO	None	All stores
TGT	'A handful + some regional DCs that handle both stores and DTC'	1,800-1,900 stores
TSCO	3 out of 8 DCs serve both stores and online orders	Testing
ULTA	2; all DCs fulfill stores and online orders as well	116 stores
WMT	more than 32 ecom FCs in US; more coming this year	>3,000 stores
WSM	1 (for small parcel)	Piloting

Source: Company reports and J.P. Morgan estimates. ND = Not Disclosed

Specialty Retailers Adapted Swiftly as COVID Hit

Figure 58: E-commerce Capabilities: BBBY, DKS, MIK, TSCO, ULTA, WSM & ASO

	BBBY	DKS	TSCO	ULTA	WSM	ASO
BOPIS	All stores	All stores	All stores	All since COVID-19	Available for PB, WE, WS, and PBK	All stores
What % of customers in U.S. do you cover with 2-day shipping?	Continental US with Express Delivery Option	100% of continental US	>95%	57% of guests; 98% with upgraded shipping	70% of US population	Not Disclosed
Do you have same-day delivery?	99% of store locations with help of TPs	Yes, in 300 stores with Instacart	All stores	No	Pilotied in 2020	No
Do you offer a marketplace online via your website?	No	No	No	No	Yes in Pottery Barn	No
Do you have drop-ship for items on your website?	Yes	Yes	Yes	No	Yes	Yes
WiFi in stores?	All	All	All	~1,000 stores	Almost all	Not Disclosed
Can customers return online orders in stores?	Yes	Yes	Yes	Yes	Yes	Yes

Source: Company reports and J.P. Morgan estimates.

The figure above summarizes some key omni-channel capabilities of BBBY, WSM, DKS, TSCO, and ULTA.

- Broadly, all locations now have BOPIS.
- **BBBY now has same-day delivery** through a combination of Shipt and Instacart marketplaces. Additionally, through DoorDash Drive, BBBY and buybuy Baby websites will expand same-day delivery to over 3,000 additional zip codes across the country. With the added coverage, same day delivery is now available in 99% of their store locations.
- **DKS now covers 100% of continental US through 2-day shipping** and has same-day delivery with Instacart in 300 locations.
- **TSCO can reach over 95% of population in 2 days and has same-day delivery in all locations.**
- With the opening of the Jacksonville fast fulfillment center (FFC) in 2020, ULTA can now reach ~57% of guests within 2 days with ground shipping, and 98% with upgraded shipping.

Mobile Capabilities Continue to Improve with Mobile Checkout the Next Leg

All retailers discussed in this report have mobile apps except the WSM brands and ASO (TSCO launched LY). Most notable upgrades to retailers' mobile apps over the

past couple of years have been in-store pick up option, in-stock inventory availability for BOPIS, ability to use coupons, in-app wallet, etc.

Retailers are now leaning on mobile apps to expedite checkout with WMT and TGT now offering a mobile checkout option on the app while in stores, which removes a significant pain point by avoiding long wait times at checkout counters. Similar to Walmart, Target has a wallet feature on the app that allows scanning items on the phone and scanning the receipt at checkout. With this feature, guests can pay using their Target REDcard, combine digital savings, and add REDcard discounts on the basket as well.

Taps to Checkout: BBBY Closes the Gap

Analyzing the number of clicks required to place an online order after signing into the customer account on the mobile app (with default payment information and shipping address saved beforehand), we find that AMZN has the quickest checkout with only two clicks (adding product to the cart and tapping the 'buy now' option followed by 'place order'). 3 appears to be the 'default' number of taps as W, WMT, TGT, WSM, ULTA, HD, COST, and LOW all are at the same level. BBBY joined this league after eliminating 3 additional taps required last year. Notably, BBBY's extra tap is related to the prompt to add a warranty offer to most of the products.

Figure 59: Number of Taps Required for Checkout on Mobile App; DKS/ASO Still Lagging

Ticker	2021	2020	2019
AMZN	2	2	2
BBBY	3	6	6
COST	3	3	3
HD	3	3	3
LOW	3	3	4
TGT	3	3	3
ULTA	3	3	3
W	3	3	2
WMT	3	3	3
WSM	3	3	3
BBY	4	4	5
DKS	5	5	6
ASO	5	-	-

Source: J.P. Morgan estimates, Company data.

The Rise of the Endless Aisle

All retailers covered here have a significantly broader assortment online, ranging from Walmart offering 640x more to COST offering >2x more SKUs online than in stores. Walmart, in an attempt to be the Amazon alternative, hosts a marketplace on its website, boasting 80MM SKUs available online vs. 75MM LY (and 35MM four years ago). Although it is still dwarfed by Amazon's estimated offering (>100MM Prime-eligible SKUs), **WMT argues that the top 1MM products account for 80% of the searches.**

Figure 60: Number of SKUs in a Typical Store vs. Online

	In-store	Online	3rd Party Listing on Website?
BJ	7.2K	more than in clubs	No
COST	3.7K	~10K	Only services
HD	35K	2MM+	No
LOW	35K	~2MM	No
TGT	80-100K	~1MM	Yes
TSCO	up to 20K	~150K	Yes
ULTA	25K+	"Higher inc. online-only"	No
WMT	120K	~80MM	Yes

Source: J.P. Morgan estimates, Company data. *the company controls imagery, pricing, etc.

Ticket Bigger Online Often Driven by Mix

While you often lose the high-margin add-ons, the consumer tends to buy bigger ticket items online, often to pass the free shipping minimum, yielding an overall larger basket. Indeed, as seen below, omni-channel shoppers spend ~4x times a single-channel shopper on average and the online basket is generally bigger ranging from 40% to 300% of the B&M basket (for retailers with disclosed data).

Figure 61: Selected Shopper Spend Metrics by Retailer

	Average B&M ticket	Average online ticket	Omni-channel shopper spend vs. single channel shopper spend
BBY	-	"higher"	-
COST	\$140	\$300-\$400	'a little more in total dollars spent'
HD	\$66	3x in-store ticket	-
LOW	\$75	\$275	-
TCS	\$57	\$118	-
TGT	\$40-45	"higher"	4x of B&M only, 10x of digital-only
TSCO	\$45	"higher"	-
ULTA	high 40s	high 50s	2.8x
WMT	-	-	2.4x vs. B&M only
WSM	-	-	5.0x
Average			3.9x

Source: Company reports and J.P. Morgan estimates.

Pricing Gap to AMZN Widens as Strong Demand Likely Drove Pricing Power

Most retailers we surveyed saw price gaps widen (and narrowed for those that were at a discount in 2020 such as WMT and TGT) vs. AMZN. DKS saw the highest jump in premium vs. AMZN, going to 5% premium vs. AMZN this spring against -1% discount we saw on average last year. This was followed by W, whose premium jumped to 6%, on average, vs. 2% LY. HD saw its premium narrow vs. LY while LOW's widened slightly. ULTA slightly edged up its ~HSD premium vs. AMZN. WMT and TGT maintained a discount to AMZN, on average, but the gap narrowed vs. LY. BBY's discount widened to -3% vs. -2% LY. BBY, on the other hand, moved to a -1% discount to AMZN vs. +3% premium per our survey.

Note, we did not distinguish between third-party sellers and Amazon so long as it was Prime eligible.

Figure 62: Premium / (Discount) vs. AMZN 2017 to 2020

Average Premium / (Discount) vs. AMZN						
Company	2017	2018	2019	2020	2021	2021 vs. 2020
LOW	3%	(3%)	(8%)	8%	9%	Similar
ULTA	10%	13%	14%	6%	7%	Similar
W	5%	1%	10%	2%	6%	Widened
DKS	7%	8%	0%	(1%)	5%	Widened
HD	2%	(6%)	2%	6%	4%	Narrowed
ASO	-	-	-	-	2%	-
WSM	7%	10%	1%	(1%)	1%	Widened
BBY	6%	3%	5%	3%	(1%)	Narrowed
BBBY	7%	12%	9%	(2%)	(3%)	Similar
TGT	(16%)	(9%)	(14%)	(9%)	(4%)	Narrowed
WMT	(19%)	(12%)	(15%)	(9%)	(6%)	Narrowed
Average	1%	2%	0%	0%	2%	Modestly higher

Source: Company websites and J.P. Morgan. Sorted by 2020 average premium.

- **WMT and TGT seemingly at parity while still pricing MSD average discount to AMZN.** For the fifth consecutive year, we looked at sample items belonging to 5 categories: household essentials, food and beverage, baby, personal care, and electronics. Our searches for items on Amazon often yielded top results of sellers offering items in bulk sizes rather than singles. Usually, the price gap narrows on a per unit basis for larger packs. This year we saw TGT's price gap narrow more than WMT vs. AMZN.
- **Home furnishings price gaps vs. AMZN essentially stayed similar to LY,** although our survey shows a slight price premium increase for W. We did notice WSM carrying more proprietary branded household small appliances that were placed atop when we searched for third-party branded items.
- **BBY's prices are at a slight discount (1%) vs. to last year's 3% premium, but note we don't overly read into it.** The average is swayed by some outsized gaps/premiums (while a majority of the items are in a narrow range). Also, pricing in this category is the most dynamic, and BBY's price matches AMZN's.
- **DKS price gap vs. AMZN widens; ASO more narrow.** DKS pricing on average was 5% more expensive than AMZN compared to 1% cheaper last year and an 8% premium in 2018. ASO pricing was on average 2% more expensive

than AMZN. We found the price gap at both DKS and ASO to be quite wide with a large number of items priced at outsized gaps/premiums but a few that are similar to AMZN's prices (consistent with recent years).

- **HD price gap narrows, LOW widens vs. 2020.** HD pricing on average was 4% more expensive than AMZN compared to 6% last year, while LOW was 9% more expensive vs. 8% in 2020. That said, there has been vacillation in recent years between HD/LOW pricing at premiums & discounts vs. AMZN since 2015. However, it appears HD/LOW generally price at premiums vs. AMZN offset by a few large discounts.
- **ULTA's price premium flattish vs. 2020.** Similar to our findings in recent years, ULTA is the clear pricing and availability winner for new and digitally native brands such as Morphe, Flower Beauty, Milani, etc., which have been a key traffic and comp driver for ULTA. For example, when we searched for The Ordinary Hyaluronic Acid 2% + B5, we found it sold on AMZN at a ~2x premium to ULTA for the same SKU. We believe this is a key differentiator/appeal of ULTA and consumers are likely to favor ULTA over AMZN as a beauty destination with innovation/newness a key topline driver in the beauty industry. In terms of the rest of ULTA's assortment, YOY changes were driven by AMZN raising/lowering prices on certain SKUs, while ULTA didn't change prices much. **We also found that none of the top 10 prestige brands (Clinique, Lancôme, Estee Lauder, Chanel, MAC, Urban Decay, Bare Escentuals, Christina Dior, Benefit Cosmetics, and Bobbi Brown Essentials) sold direct on AMZN.**

Figure 63: WMT and TGT Still Cheaper vs. AMZN; But Gap Continues to Narrow

Item	Spring 2019		Spring 2020		Spring 2020	
	WMT.com	TGT.com	WMT.com	TGT.com	WMT.com	TGT.com
Household essentials						
Ultra Downy® Free & Gentle™ Liquid Fabric Conditioner 129 FL. oz.	-44%	-44%	-38%	-38%	-23%	-11%
Tide Original Scent Liquid Laundry Detergent, 64 Loads, 100 Oz	-48%	-48%	-3%	-3%	23%	0%
Bounty Select-A-Size Rolls, 12 double rolls					-14%	-14%
Bounty Paper Towels 12 Super Rolls	-43%	-	-	-	NA	NA
Quilted Northern Ultra Soft & Strong Toilet Paper, 48 Double Rolls	-11%	3%	-	-	-9%	-18%
Swiffer Sweeper Wet refills Gain Original, 24ct	5%	6%	0%	0%	-33%	-20%
Mrs. Meyer's Hand Soap Refill Geranium - 33 oz	-33%	-24%	-	-	39%	-22%
Duracell Coppertop AA Batteries 24 Count	-21%	-15%	-	-	30%	39%
Food and beverage						
Nestle Coffee-mate Creamer 35.3oz	-52%	-44%	-43%	-39%	-47%	-30%
Lipton Black Tea Bags 100 ct	-54%	-60%	-61%	-49%	-26%	0%
Chocolate Oreo Cookies 19.1 oz	-25%	-25%	0%	32%	18%	38%
Butterfinger Candy Bar 1.9 oz.: 36 Count	-	-5%	26%		0%	
Rao's Marinara Sauce 24 oz	-86%	-85%	0%	34%	-35%	-12%
Jif® Creamy Peanut Butter 40oz	0%	1%	3%	17%	-8%	-5%
Barilla Pasta, Rotini, 16 oz	-4%	0%	-36%	-26%	11%	-18%
Lay's, Doritos, Cheetos, Fritos Variety Pack - 18ct	0%	0%	-	-	-13%	0%
Cheerios Gluten Free Breakfast Cereal, 18 oz.	-2%	12%	-9%	8%	-9%	8%
Poland Spring Natural Spring Water, 24pk	-	-	102%	-11%	82%	-20%
Baby						
Enfagrow Natural Milk Powder, 32 Oz	0%	4%	0%	2%	9%	41%
Munchkin Soft-Tip Infant Spoons - 6pk	99%	-1%	-51%	-53%	-62%	-62%
Bumbo Floor Seat - Assorted Colors	-	-	-31%	-31%	-21%	0%
Baby Jogger City Mini GT2 Single Stroller	-	0%	0%	0%	0%	0%
Gerber 2nd Foods Apricot with Mixed Fruit - 2.4oz pack	-	-	-	-	-	-
Huggies® Little Snugglers Baby Diapers, Size 1, 96 ct	-	-	-	-	-28%	-18%
Pampers Sensitive Water Baby Wipes 9X Refill Packs, 576 Count	-	-	6%	6%	45%	5%
Personal care						
Sensodyne® Pronamel Gentle Whitening for Sensitive teeth Toothpaste - 4oz/2pk	-31%	3%	-43%	-40%	-39%	-23%
Dove Advanced Care Cool Essentials Antiperspirant Deodorant 2.6 oz	-12%	-12%	0%	0%	-3%	11%
Control GX® Grey Reducing 2 in 1 Shampoo and Conditioner - 5.5 oz	0%	3%	0%	3%	7%	38%
Burt's Bees Lip Balm 0.15 oz	-6%	0%	-9%	-2%	0%	33%
Tylenol Extra Strength Pain Reliever and Fever Reducer Caplets for Adults - 100 ct	-3%	-2%	0%	0%	-10%	11%
Advil Liqui-Gels Minis Pain Reliever / Fever Reducer Liquid Filled Capsule - 80 ct	11%	11%	0%	1%	-37%	-21%
Dove Men+Care Body and Face Bar Extra Fresh 4 oz, 8 Bar	-30%	-43%	-52%	-51%	-45%	-53%
Electronics						
GoPro HERO8 Black					4%	4%
Garmin Drive 60LM GPS	-	-	-4%	-	3%	0%
Beats Solo3 Wireless On-Ear Headphones	9%	0%	0%	12%	-7%	1%
Instant Pot Duo 6 quart 7-in-1	-17%	-28%	-	-	3%	0%
Average	-15%	-14%	-9%	-9%	-6%	-4%
Median	-11%	-1%	0%	0%	-8%	0%

Source: Walmart.com, Target.com, and Amazon.com.

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Figure 64: HD Is Still Price Leader vs. LOW; Both at Premium to AMZN

#	Item	Spring 2018		Spring 2019		Spring 2020		Spring 2021	
		HD	LOW	HD	LOW	HD	LOW	HD	LOW
Appliances									
1	Whirlpool 20.6 cu. ft. Side by Side Refrigerator Stainless Steel, Counter Depth	0%	-19%	-20%	-26%	-	-	-	-
2	Dyson Ball Multi Floor Bagless Upright Vacuum	25%	25%	48%		14%		6%	6%
3	Whirlpool 28.4-cu ft Side-by-Side Refrigerator	-32%	-32%	-21%	-27%	-	-	-	-
4	GE 1.6 cu. Ft. Over the Range Microwave	0%	1%	-1%	0%	-20%	-19%	-27%	-27%
5	LG 7.4 cu. Ft. Electric Dryer with Steam	-33%	-33%	-24%		-	-	-	-
6	InSinkErator Badger 5 1/2 HP Continuous Feed Garbage Disposal	3%	3%	0%	5%	5%	24%	20%	20%
7	AirCare Whole House 3.5 Gal. Pedestal Evaporative Humidifier					-6%	2%	-6%	2%
8	CuisinArt Elemental 13 Cup 3 Speed Food Processor					0%	0%	0%	0%
9	iRobot Roomba 960 Robot Vacuum					0%	11%	6%	6%
Home Décor									
10	Hansgrohe Chrome HG Shower 3-Spray Showerhead	7%	5%		-	3%	7%	9%	9%
11	Hunter 53336 Casual Donegan Onyx Bengal Ceiling Fan With Light, 52"	0%	0%	0%	0%	11%	0%	5%	5%
12	Colony Soft 4 in. Centerset 2-Handle Bathroom Faucet	0%	3%	-10%	11%	3%	10%	0%	0%
Lawn & Garden									
13	Weber Spirit E-210 2-Burner Propane Gas Grill	-33%	-33%	0%	0%		0%	0%	0%
14	Bully Tools 14-Gauge Round Point Shovel with Fiberglass D-Grip Handle							0%	0%
15	Scotts 15000-sq ft Turf Builder Plus Spring Lawn Fertilizer	-48%	-48%	7%	7%	16%	16%	24%	43%
16	Black+Decker 18 in. 20 Volt MAX Cordless Pole Hedge Trimmer	0%	16%	-9%	13%	4%	10%	10%	29%
17	Yard Gard Ultrasonic Animal Repeller	4%	2%	22%	22%	1%	77%	14%	14%
Tools & Equipment									
18	DEWALT 20-Volt Max Lithium-Ion Combo Kit (2-Tool)							0%	43%
19	Wagner Power Painter Plus 6.6 GPH with EZ Tilt Technology	0%	0%		-	-	-	-	-
20	Lincoln Electric 230-Volt / 225-Amp Stick Welder							10%	7%
21	DEWALT Pneumatic 28-Degree Framing Nailer		28%	39%	-100%	57%		2%	-
22	BLACK & DECKER 7-Amp Belt Power Sander	0%	0%	0%	7%	-21%	-39%	0%	-14%
23	Blue Wave Indigo Hybrid X-5 Robotic Pool Cleaner	-9%	9%	23%	9%	-	-	16%	5%
24	DEWALT 12-Inch Miter Saw, 15 Amp, Single Bevel, Compound					0%	37%	2%	20%
Average		-6%	-3%	2%	-8%	6%	8%	4%	9%
Median		0%	2%	0%	0%	3%	8%	3%	6%

Source: HomeDepot.com, Lowes.com, Amazon.com

Figure 65: BBY Flips to Slight Discount to AMZN, on Average

#	Item	Spring 2015 BBY.com	Spring 2016 BBY.com	Spring 2017 BBY.com	Spring 2018 BBY.com	Spring 2019 BBY.com	Spring 2020 BBY.com	Spring 2021 BBY.com
1	Samsung 32" LED 1080p HDTV	0%	1%	13%	14%	10%	(24%)	1%
2	LG 49" LED 1080p HDTV	0%	(2%)	(16%)	(8%)	5%	1%	1%
3	Samsung 65" 4K Ultra HD TV	0%	(1%)	18%	5%	0%	6%	0%
4	Canon PowerShot 16MP Digital Camera	0%	0%	0%	0%	0%	0%	0%
5	Canon - EOS Rebel T6 DSLR Camera	1%	0%	(20%)	0%	0%	8%	0%
6	Dell - Inspiron 2-in-1 15.6" Touch-Screen Laptop	6%	13%	17%	3%	31%	9%	(15%)
7	Apple 21.5" iMac	0%	(9%)	5%	17%	(13%)	6%	(15%)
8	Apple iPad Air 2 Wi-Fi 64GB	5%	(3%)	(10%)	(19%)	0%	7%	0%
9	Bose® Acoustimass® 10 Series V 5.1-Channel Home Theater Speaker	0%	0%	6%	0%	0%	0%	0%
10	Ninja 4 qt. Digital Air Fryer						0%	1%
11	Keurig K-Elite Single-Serve K-Cup Pod Coffee Maker						0%	6%
12	Samsung Front-Load Washer 8 cycle	-10%	(3%)	13%	(12%)	(7%)	-	-
13	Samsung 11-Cycle Gas Dryer	0%	(5%)	1%	(33%)	0%	-	-
14	KitchenAid Artisan Series Mixer	17%	7%	31%	0%	36%	(33%)	2%
15	Fitbit Flex 2 Activity Tracker	10%	25%	11%	(0%)	0%	1%	0%
16	Amazon Fire HD 8" 8GB Black	1%	0%	0%	5%	5%	0%	0%
17	Nokia 3310 Cell Phone	0%	(24%)	56%	3%	20%	0%	5%
18	Belkin Wireless Router	0%	(16%)	0%	63%	0%	150%	29%
19	HP Officejet Pro All-In-One Printer	0%	0%	0%	0%	0%	0%	0%
20	Bose® - SoundLink® Wireless Around-Ear Headphones II	0%	0%	0%	0%	0%	0%	0%
21	LG - 27" IPS LED 4K UHD FreeSync Monitor	0%	20%	4%	(1%)	13%	(28%)	3%
22	Samsung Curved 55-Inch 4K Ultra HD Smart LED TV	0%	0%	(12%)	14%	0%	(33%)	(44%)
Average		1%	0%	6%	3%	5%	3%	(1%)
Median		0%	0%	2%	0%	0%	0%	0%

Source: Bestbuy.com, Amazon.com

Figure 66: Home Furnishings Price Premium Disappears

#	Item	Spring 2019			Spring 2020			Spring 2021		
		BBBY.com	WSM.com	Wayfair.com	BBBY.com	WSM.com	Wayfair.com	BBBY.com	WSM.com	Wayfair.com
1	Cuisinart Mini-Prep Plus Food Processor (3 cup)	0%	0%	15%	0%	0%	0%	0%	0%	25%
2	OXO Muddler	7%	0%	-	0%	0%	0%	0%	0%	0%
3	Breville® Compact Stainless Steel Smart Tea Infuser							0%	0%	-
4	SodaStream Soda Maker	13%	12%	0%	0%	20%	6%	25%	25%	25%
5	Miele® Classic C1 Turbo Team Vacuum in Blue							0%	25%	50%
6	Breville Die-Cast 4-Slice Smart Toaster	0%	0%	0%	-9%	-9%	-9%	-10%	-10%	-10%
7	KitchenAid 5-Quart Artisan Stand Mixer	0%	17%	0%	3%	3%	3%	-20%	-20%	-20%
8	OXO Triple Timer	0%	0%	0%	0%	0%	-	0%	0%	-
9	Rosle Stainless Steel Ice Cream Scoop (8 inch)	-	-	-	0%	-	26%	-41%	-	-
10	OXO Good Grips® Chef's Precision Digital Leave-In Thermometer in Black							0%	0%	0%
11	Breville The Juice Fountain Plus	0%	0%	0%	2%	2%	2%	0%	0%	0%
12	Cuisinart 4 Slice Belgian Waffle Maker - Square							0%	0%	0%
13	Le Creuset Stockpot 8 qt, Marseille	5%	0%	5%	0%	0%	3%	0%	0%	-15%
14	Nordic Ware Small Anniversary Bundt Cake Pan	23%	12%	5%	-14%	-12%	-	-	0%	7%
15	Cuisinart Chef's Classic 17 Piece Hard-Anodized Aluminum Non Stick Cookware Set							0%	0%	0%
Average		9%	1%	10%	-2%	-1%	2%	-3%	1%	6%
Median		5%	0%	5%	0%	0%	2%	0%	0%	0%

Source: Bedbathandbeyond.com, Williamssonoma.com, Wayfair.com, Amazon.com

Figure 67: DKS and ASO Slight Premium to AMZN in 2021

Quarter 1: DKS and ASO Eight-Item Item to ASO in 2021							
#	Item	Spring 2017	Spring 2018	Spring 2019	Spring 2020	Spring 2021	
		DKS	DKS	DKS	DKS	DKS	ASO
<u>Apparel</u>							
1	Under Armour® Women's Tech Short-Sleeve Tee	0%	-23%	-25%	0%	0%	-20%
2	Under Armour® Men's Tech Golf Polo	0%	3%	67%	0%	0%	0%
3	Nike Women's Dry Legend Scoop T-Shirt	-	34%	-51%	-50%	39%	11%
<u>Footwear</u>							
4	Merrell Men's Chameleon 7 Stretch Hiking Shoe	0%	22%	-	-	-14%	-14%
5	Nike Men's Flex Experience Run 9 Running Shoes	-32%	-16%	23%	-47%	-19%	-19%
6	adidas Men's Pamba Classic Indoor Soccer Shoe	0%	-50%	-33%	5%	28%	28%
7	Timberland Women's Mt. Maddsen Waterproof Leather Hiking Boots	-	85%	0%	43%	17%	11%
8	New Balance Men's Fresh Foam Tempo Running Shoe	-	-6%	0%	-15%	22%	22%
<u>Hardlines</u>							
9	Schwinn Youth Thrasher Bike Helmet	100%	32%	20%	0%	20%	0%
10	YETI 30 oz. Rambler Tumbler Cup	0%	-25%	0%	0%	14%	14%
11	Ballback Pro Basketball Return System	25%	25%	25%	-52%	NA	NA
12	Steiner Military Marine 8 x 30 Binoculars	15%	15%	-	-	0%	0%
13	Garmin Forerunner 45 GPS Running Watch	-9%	-20%	25%	180%	0%	0%
14	Rawlings Threat USSSA Baseball Bat	-	-5%	0%	1%	0%	0%
15	Bowflex SelectTech Stand w/ Media Rack	-	37%	0%	1%	20%	20%
16	Nike Utility Speed Training Backpack	-	9%	20%	0%	-23%	-23%
17	The North Face Women's Jester Backpack	-	25%	0%	0%	0%	0%
18	Coleman Dexter Point 40 Sleeping Bag	-	8%	-64%	-81%	0%	0%
19	Speedo Elastomeric Silicone Swim Cap	-	2%	0%	0%	-17%	0%
Average		1%	8%	0%	-1%	5%	2%
Median		0%	8%	0%	0%	0%	0%

Source: Discsportinggoods.com, Amazon.com, academysports.com

Figure 68: ULTA's Average Premium Flattish vs. 2020

#	Item	ULTA's Premium/(Discount) vs. AMZN				
		Spring 2017	Spring 2018	Spring 2019	Spring 2020	Spring 2021
Prestige:						
1	Lancome Dual Finish	3%	4%	-13%	-7%	-13%
2	Lancôme Blush Subtil Oil Free Powder Blush	-42%	-44%	9%	-27%	-22%
3	Urban Decay Naked3	-7%	-21%	-3%	-2%	0%
4	OPI Nail Lacquer Polish	0%	20%	0%	-50%	25%
5	Philosophy Renewed Hope In A Jar (2 oz)	-19%	0%	33%	0%	0%
6	Redken Color Extend Shampoo (33.8 oz)	9%	17%	61%	45%	0%
7	Pureology Hydrate Conditioner (33.4 oz)	49%	0%	25%	1%	0%
8	Dolce&Gabbana Light Blue Perfume (1.6 oz)	109%	82%	54%	126%	75%
9	Yves Saint Laurent Black Opium Perfume (1.6 oz)	43%	20%	55%	18%	18%
10	Dyson Supersonic Hair Dryer	-19%	-15%	0%	0%	-10%
11	Ofra Long Lasting Liquid Lipstick	-	-31%	-45%	-9%	0%
12	James Charles Palette	-	-	-17%	-35%	-17%
13	M.A.C Art Library Palette: Nude Model	-	-	-	-26%	-20%
14	Tarte Face Tape Foundation	-	-	-	-34%	30%
15	Murad Envrionmental Vitamin C Glycolic Brightening Serum	-	-	-4%	0%	0%
16	Laura Mercier Translucent Loose Setting Powder	-	-	-	95%	-34%
17	Ouai Hair Oil	-	-	-	0%	0%
18	Sunday Riley Good Genes All-in-One Lactic Acid Treatment	-	-	-	0%	0%
Mass:						
19	Revlon ColorStay Pressed Powder	45%	22%	19%	26%	37%
20	Cover Girl + Olay Simply Ageless Foundation	34%	21%	33%	3%	48%
21	Revlon Lipstick	12%	29%	27%	71%	78%
22	Maybelline Lash Sensational Luscious Waterproof Mascara	-10%	33%	29%	11%	28%
23	Maybelline Fit Me Blush	-	40%	0%	35%	36%
24	Cover Girl Perfect Point Plus Eyeliner	-	29%	51%	52%	44%
25	Elf Flawless Finish Foundation	-33%	-11%	16%	0%	0%
26	Maybelline FaceStudio Master Concealer	13%	53%	44%	13%	21%
27	Body Shop Tea Tree Body Wash	-	0%	7%	0%	0%
28	L'Oreal Hair Color Excellence Creme Gloss Hair Color	-32%	0%	-	-	
29	Revlon Rose Gold Curling Iron	8%	0%	-25%	0%	24%
30	Sally Hansen Miracle Gel Nail Polish 0.5 oz	38%	43%	23%	76%	34%
32	Morphe Jaclyn Hill Palette Volume 2	-	-	-21%	-39%	-20%
33	Flower Beauty Pots Powder Blush	-	27%	-9%	0%	3%
34	Juice Beauty Phyto Pigments Light Diffusing Dust	-	-	-	0%	0%
35	Colourpop Stone Cold Fox Eyeshadow Palette				-25%	-49%
36	The Ordinary Hyaluronic Acid 2% +B5	-	-	-	-77%	-47%
		-	-	-		
Average		12%	13%	14%	6%	7%
Median		9%	17%	16%	0%	0%

Source: Ulta.com, Amazon.com

Online Dislocation: Product Basics

We believe the nature of the industry and products sold play a key part in determining the degree of the threat generated from online-only retailers. Needless to say, we believe we have quite some time before online milk sales or online car battery sales reach critical mass. However, company-specific initiatives also play a role in mitigating the threat of AMZN and other competitive e-tailers. In the sections that follow, we dive into the key variables that we believe influence the susceptibility of a shift to online sales. We group these variables into experience-driven and product-driven decision factors.

Figure 69: Susceptibility to AMZN / e-tailer by Category, Low to High



Source: J.P. Morgan.

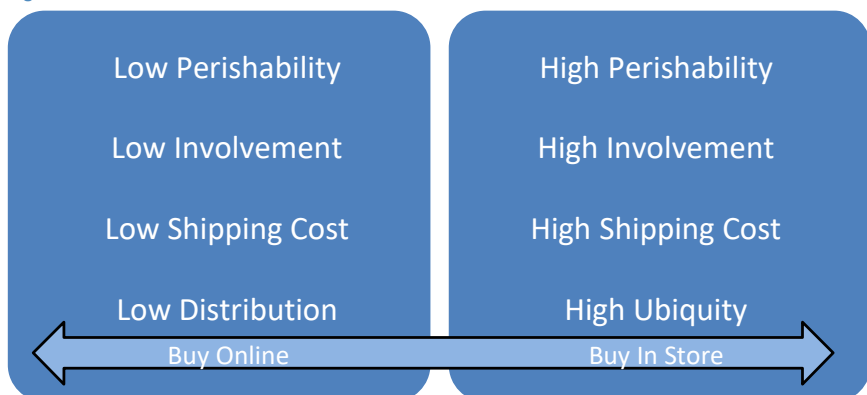
We believe at the heart of the decision to buy online vs. in-store are the *experience* and the *product*. We have narrowed down the experience component to include Timing/Urgency, Selection/Perishability, Price, Convenience, and Service. On the product side, we believe Perishability, Level of Involvement, Ease of Shipping, and Ubiquity are key drivers of the decision to purchase online vs. offline.

Figure 70: Experience Determinants of Internet vs. Bricks-and-Mortar Sales



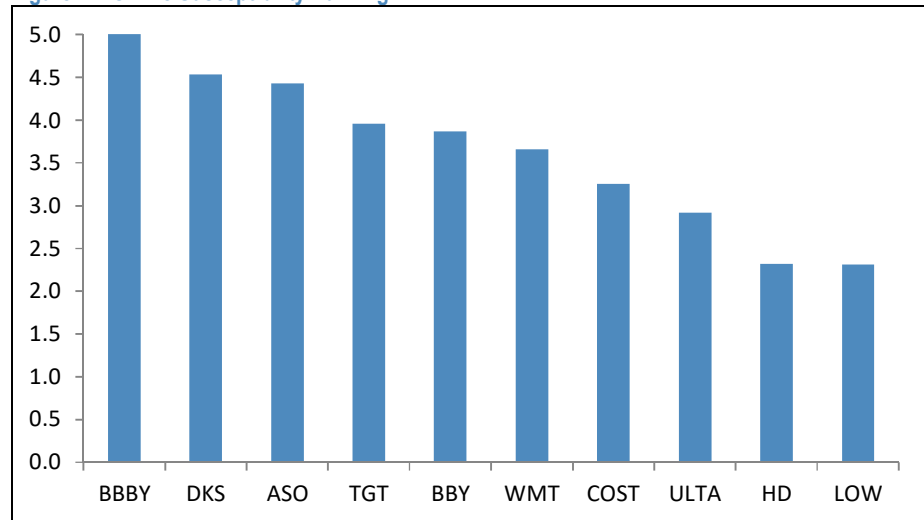
Source: J.P. Morgan.

Figure 71: Product Determinants of Internet vs. Bricks-and-Mortar Sales



Source: J.P. Morgan.

Figure 72: Online Susceptibility Ranking



Source: J.P. Morgan estimates

Most at Risk: Loosely Controlled Branded Products, Fast Fashion Items

We view online as being the largest threat to hardgoods, particularly widely distributed branded products that have a long life/high ticket. It's a black rectangular Sony that should last a decade; and is there any other mixer sold besides KitchenAid? The other aspect is some categories like home furnishings that are heritage catalog businesses (so the consumer already knows how to buy from a picture) and the brands aren't being disciplined. These categories necessitate retailers to offer more exclusives and expand private brands. Minimum advertised price (MAP) and uniform pricing policies (UPP) enforcement is also important.

In addition, Apparel can be at risk given the importance of brands and fashion and the ease of distribution. Indeed, the endless aisle online and treasure hunt for fashion in any category is tough to match in a four-wall box.

Brands More Aware

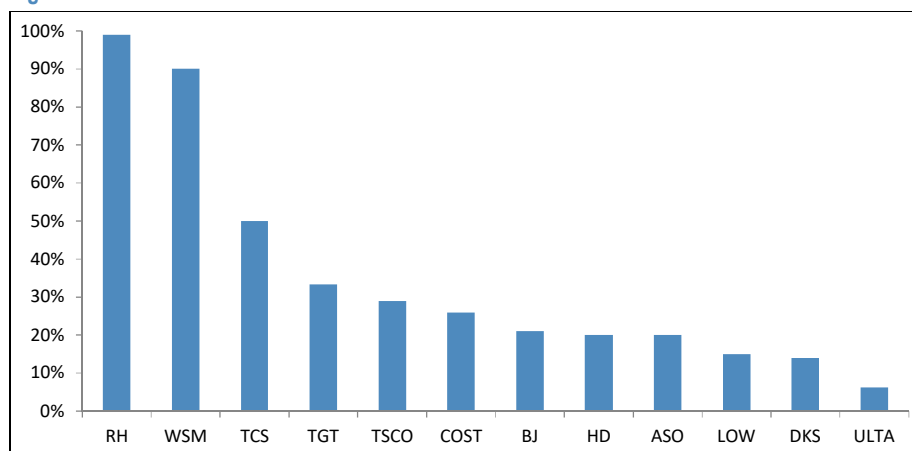
Sony's and Samsung's (both covered by JPM Technology – Semiconductors analyst JJ Park) learning curves were steep as the allure of capacity utilization led to expanded online distribution. However, it came at a cost, and finally, in 2012, they rolled out more stern pricing mechanisms that now account for ~25% of sales at BBY. Since 2011, some big home furnishings brands have seen MAP price violations. But others have learned, including NKE and UA, which are restricted in distribution with DKS gaining product exclusives. The brands are not directly sold by AMZN. However, not all brands cooperate (see our pricing surveys).

Private Label Enhances Price Competitiveness and Exclusives Offer Differentiation

Private label products have a significant price gap against national brands. In addition, proprietary/owned brands for discretionary purchases limit direct price comparability and pricing power due to brand loyalty. With respect to the retail set included in this analysis, RH and WSM are the leaders with 90%+ owned/exclusive brands, followed by TCS (~50%), TGT (~33%) and TSCO (~30%). COST and BJ

closely follow with 26% and ~21%, respectively. More recently, WMT talked about increasing private label penetration in Food, TGT has launched more than 25 brands in the past couple of years across beauty, apparel, and home categories, and DKS has talked about stepping up marketing and R&D behind proprietary brands while asking vendor partners for exclusive SKUs for the retailer. Similarly, ULTA has been upgrading fixtures to highlight and wall mount Ulta Beauty branded products in stores.

Figure 73: Private-Label Penetration



Source: Company reports, J.P. Morgan estimates. ULTA's penetration includes exclusive brands.

Consumer Electronics: BBY Embraces A New Reality

As of 2019 (2020 update expected later this year), Best Buy continued to hold the top spot in 2019, followed by Amazon at #2 ahead of WMT at #3.

Figure 74: Top 10 Consumer Electronics Retailers Company Rankings by Revenue

Rank	2000	2005	2008	2010	2015	2016	2017	2018	2019
1	Best Buy	Best Buy	Best Buy	Best Buy	Best Buy	Best Buy	Best Buy	Best Buy	Best Buy
2	Circuit City	Walmart	Walmart	Walmart	Walmart	Amazon	Amazon	Amazon	Amazon
3	Sears	Circuit City	Circuit City	Apple Stores	Amazon	Walmart	Walmart	Walmart	Walmart
4	CompUSA	Dell	Apple Stores	Amazon	Apple Stores	Apple Stores	Apple Stores	Apple Stores	Apple Stores
5	RadioShack	RadioShack	Target	Target	Target	Costco	Costco	Costco	Costco
6	Walmart	Target	Dell	Costco	Costco	Target	Target	Target	Target
7	Target	CompUSA	Game Stop	Game Stop	Gamestop	Gamestop	Gamestop	Gamestop	Micro Center
8	Staples	Costco	Costco	Dell	Newegg.com	Newegg.com	Newegg	Dell	Newegg
9	Office Depot	Sears	RadioShack	RadioShack	Sam's Club	Micro Center	Dell	Micro Center	Gamestop
10	Kmart	Sam's Club	Amazon	Sam's Club	RadioShack	Dell	Micro Center	Newegg	Dell

Source: TWICE, Consumer Electronics Association, and J.P. Morgan estimates. *Note: 2017 data are expected to be published in mid-May.

Product Cycles Are Tantamount in Framing the E-commerce Lens

As we've always stated, we believe specialty retail generally wins during periods of high innovation and loses during commoditization. Consumer electronics, books, and office, the poster children of online encroachment, had significant product issues that were at least as significant a contributor to financial declines as AMZN's push. For books/packaged media, consumption started moving toward digital, thereby eliminating the need for the number and size of stores that sold them. For electronics, the basis of our January 2008 BBY downgrade from OW to UW was the crescendo of a once-in-a-generation product cycle that rapidly turned the other direction as replacement periods lengthened (e.g., TVs) and product proliferation turned to convergence (e.g., negative comps in GPS, cameras, and iPods).

While the cycle caused a significant amount of pain, the rapid change/adoption of e-commerce took BBY by surprise and it had to invest to catch up (e.g., lower prices, free shipping levels, and web, advertising, and supply chain capabilities). Initially, its gross margin dropped ~200 bps, but it subsequently recovered.

For reference, Circuit City closed all of its doors on March 8, 2009, leading to a big share shift among key industry players. Circuit City's demise was a significant part of the drop in 2009, but we believe the bankruptcy was symptomatic of the cycle, the low-margin, deflating nature of the category, and the financial crisis. The analog to the digital product switch created a once-in-a-generation product cycle, and the adoption of new TVs, cameras, MP3 players, GPS devices plus a new gaming ecosystem from the big three players created a supercycle. Indeed as noted below, household penetration rates rose rapidly in the 2005-08 period, and "the last leg of adoption" is often driven by mass commoditizers like COST, WMT, and AMZN. Looking back to our [in-depth TV reports](#) from 2006 and 2015, we believe the "sweet spot" of adoption (i.e., when it's most beneficial for the specialty retailers financially) often occurs when household penetration ramps from 14%-40%+. As it lurches toward 60%, the AMZNs and WMTs of the world appear to take over.

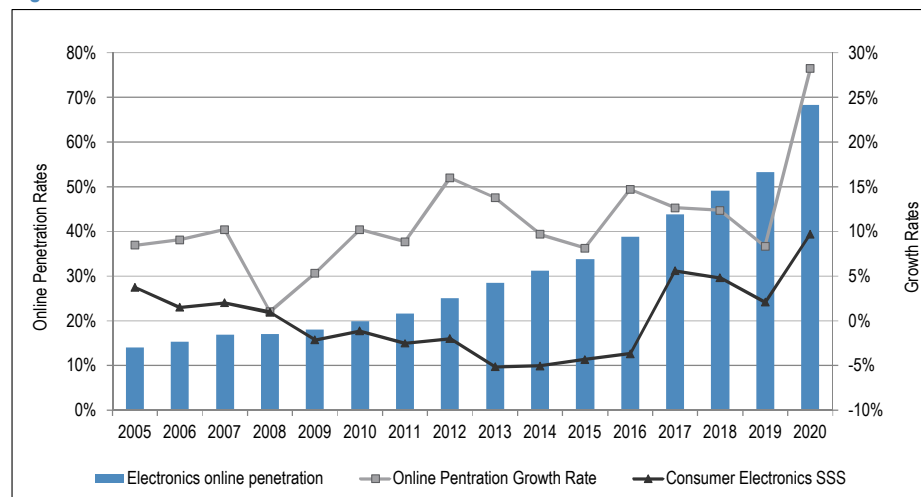
Online Growth Data Inconsistent in 2020

As discussed earlier in the report, Computer Software growth online accelerated to 29% in 2020 (vs. 6% in 2019), while Computer Hardware modestly tweaked lower to 17% growth (vs. 18% in 2019) and Consumer Electronics (including tablets) decelerated to 2% growth online in 2020 (vs. 12% in 2019). On the other hand, Video Games, Consoles & Accessories had accelerated to 17% in 2020 vs. 10% in 2019 as shelter-in-place orders helped the category. *Broadly, the comScore data for computing is inconsistent with what BBY has reported, in addition to reports by Apple, Gartner, IDC, etc, and is also incongruent from broader work/learn from home trends. Hence, we believe the data is understated.*

Penetration jumps during COVID-19; like some give back. E-commerce penetration of the Consumer Electronics category reached ~68% in 2020, up from ~53% in 2019. The pace of online penetration growth accelerated to 28% in 2020 from 8% in 2019, but we expect the rate to at least partially reverse as B&M stores lap last year's closures.

BBY's e-commerce growth rate was 145% in 2020 vs. the industry's 18%, although penetration (43%) remains well below the industry's (68%) likely at least in part related to mix (software is very highly penetrated online relative to BBY's core hardware assortment). Indeed, convergence, the cloud, and mobile continue to hollow out the breadth of the category with video components, imaging, and video gaming seeing penetration rates recede (potentially following the path of MP3 players). *This has caused BBY to focus more on services and selling the "internet of things."*

Figure 75: Consumer Electronics Online Penetration and SSS



Source: Company reports, ComScore, Census data, and J.P. Morgan estimates.

BBY Embracing e-Commerce Jump: Fewer Stores and Employees

Given the tremendous jump in e-commerce penetration (43% in 2020 vs. 19% in 2019), BBY is assuming a large part of is structural (we are modeling a reversion to 33% in 2021) and is thus stepping up store closures and changing its labor model for its perceived new reality.

- **Closing more stores and testing formats.** BBY closed ~20 large format stores each of the past two years and said they will close "more" this year. As noted below, in its existing stores it is testing different formats, including using part of the selling footage for back room, local market shipping.
- **Changing labor model.** Moreover, BBY terminated 5k largely full time employees (~5% of its workforce) and only added 2K part time associates, while last year it only ever returned about two-thirds of its COVID-19 furloughed employees, as it expects e-commerce mix to potentially be about half of sales over time. The company is pivoting to using stores as fulfillment centers (including shrinking the selling footage) and is looking to pivot to smaller footprints overall (and decrease lease durations). Employees are being trained to cover more roles to make for a more flexible workforce (same rationale for more part timers). While there is a richer mix of full time/experienced employees, this is still a net labor dollar savings to the company.

Services in Focus to Drive Loyalty with a Benefit to GM

BBY is executing against the e-commerce transition by: **1)** pivoting their business towards services (Geek Squad/Best Buy Beta) from which they can sell additional products, and **2)** providing solutions rather than just simply selling products (Consultants & Designers/Assured Living).

- **Best Buy Beta.** The changes discussed above have led BBY to reconsider its approach from selling single products (and attaching warranties) to providing solutions. Best Buy Beta essentially replaces Total Tech Support, and packs more value into the same price point. *For \$199/year (or \$179 for BBY card holders) members receive exclusive member pricing, unlimited Geek Squad technical support, up to two years of protection on most product purchases, free standard shipping/delivery, free installation on most products/appliances, and 24/7 concierge service only available to Best Buy Beta members.* The program is currently being piloted in 60 stores, and is not yet available online. Notably, TTS tended to attach with new product sales given the competitive value vs. a straight warranty. Best Buy Beta is the same price as it is for TTS with a lot more value to it as BBY has noted the focus is maintaining/building BBY's relevance as consumers continue to shift their electronics shopping online not margin for the sake of margin.
- **BBY Health in three stages.** One of BBY's more recent services pushes is BBY Health, which includes cellphones for seniors through Greatcall, and more recently, an expanding assortment of health monitoring devices, which BBY hopes to integrate through their partnership with Validic, a health data aggregator that can leverage information from several devices to provide helpful insights for monitoring personal health at home. The near term focus remains on consumer products like blood pressure machines, sleep monitors, pulsox machines, etc. with the suite of available products expanding with deregulation (hearing aids, for example). In the medium term, the focus shifts to 'aging at home' with more healthcare focused products such as more complex remote monitoring equipment, and similarly, sales to caregivers. Longer term, BBY expects to turn the integrated data reads from its products and services into insights that telehealth professionals can use to provide remote care to their patients (with sales through insurance companies a likely outlet).
- **Consolidating Home Advisory Services.** Earlier this year, BBY bundled its In-Home Advisors, Pacific Kitchen & Home experts, and Magnolia System Designers into one team of nearly 3,000 Consultants and Designers. This is part

of a broader push to upskill and reskill field employees to not only sell a broader array of products, but also to improve employees' abilities to build relationships and develop clientele skills. Longer term, management viewed IHA (and other service-based offerings) as a way to essentially "smooth" revenues as the company transitions from a more transaction-based, product-cycle dependent business to a more relationship-based model with recurring revenues.

BBY Among the Top Omni-channel Players; Even AMZN Needs Them

Since 2015, BBY ships from all stores, BOPIS is fully rolled, and it price-matches other retailers' websites and Amazon.com (none of this was in place in 2012). While all stores ship online orders, BBY began piloting 'ship-from-store hubs' in September and added 90 more for the holiday season. These hubs will eventually fulfill >70% of all units shipped from stores, and allows BBY to extend its next-day delivery window to orders placed before 8 pm. The company ranks as one of the top retailers in our coverage universe in terms of mobile, website, and fulfillment capabilities, but continues to compete in an industry where price is key, big-ticket, branded durables rule the assortment, innovation is critical, and prices are deflationary. *That said, showing its perch in the industry, since April 2018, BBY and AMZN are partnered to sell Fire TVs (Toshiba and BBY's Insignia brand) in-store, on Best Buy.com and 3P on Amazon.com. Clearly, this shows the importance of BBY in the CE industry with ~30% share in TVs, but it also demonstrates the importance of brick and mortar.*

BBY Attacking the Last Mile

BBY now has same-day delivery in 40 metro areas and next-day in 60 metro areas and expanding. The company has also rolled out ship-from-store hubs which management expects to ship >70% of all ship-from-store volumes, and is currently testing a variety of labor models to determine the right balance of fulfillment/selling square footage within the boxes.

Figure 76: BBY's Online Mix Capabilities Chart

	2018	2019	2020	Online Sales Contribution to Comp?	BOPIS	Ship to store	Ship from store	Same-day delivery	Fulfillment for online purchases?	Requirement for free shipping?	Paid online ads on app/website?	Mobile site/app?	Local inventory availability on app or mobile website?
BBY	17%	19%	43%	27.5%	All locations	Yes	All big boxes	All major markets	1 dedicated DC, 3 metro FCs inside regular DCs, 6 regional DCs have dedicated ecom areas; all stores ship online orders but had 340 ship-from-store-hubs for Holiday 2020	\$35	Yes	Yes	Yes

Source: Company reports and J.P. Morgan estimates.

Figure 77: BBY's Online Pricing and Products

SKUs offered								
	In-store	Online	Private label percentage	Expanded categories online?	Pricing different online?	Price match to own website?	Price match other brick & mortar retailers' online prices?	Other
BBY	7,000	ND	ND	Music, media, small appliances, phone/tablet accessories	Same	Yes	Yes	Testing store formats with more fulfillment/less selling square footage, Same-day and next-day delivery in 40 and 60 metros, respectively, and expanding; pivoting to services/selling solutions vs. selling products by bundling IHA with Pacific Kitchen & Bath experts and Magnolia Systems Designers, as well as launching Assured Living, BBY Health, Best Buy Beta membership pilot, etc.

Source: Company reports and J.P. Morgan estimates.

Discounters (BJ, COST, TGT, WMT): Not Everyone is the Everything Store

Omni-Channel and Same/Next Day: the Name of the Game

With AMZN's acquisition of Whole Foods in the summer of 2017 and Prime 1-Day promise introduced in 2019, the battle for faster fulfillment option has never more intense. Hence, each of the discounters are building capabilities, either by utilizing their physical footprint (WMT, TGT, BJ), partnering with third parties (WMT, COST, TGT, BJ), or by acquiring delivery service companies (e.g., COST acquired Innovel in 2020, TGT acquired Deliv in 2020 following Shipt in 2017 and Grand Junction in 2018).

- **Walmart vs. AMZN: the everything stores.** WMT hosts a marketplace on the website with 80MM+ items, has launched its 3P fulfillment effort, has rolled out a membership, and is working on alternative profit pools; all pages from mighty AMZN.
- **TGT: focusing on its merchandising culture and expansive store footprint.** Similar to its strategy in battling WMT over the past 30 years, TGT is focused on value-priced key items on the consumables side and a chip chic assortment in the apparel, home decor, and beauty segments (plus key items in electronics and a dominant toy assortment). In 2019, TGT launched a curated market place with invite-only brand participants offering 1MM+ products on the Target website. Both WMT and TGT are leaning heavily on curb-side pickup, while BJ made it available in all locations (food and non-food) in late 2020.
- **BJ and COST: club assortment plus.** The club model is built on hyper-efficiency of a limited assortment of products at very low margin rates being supplemented by the membership fee. Online "unlocks the box" to an expanded assortment online. COST is leaning into the home delivery big ticket side while BJ is further ahead on its BOPIC offering and leveraging the app. *COST began testing curbside pickup in 3 New Mexico locations for 2K food and non-food items beginning this year, although it carries a \$10 fee and a \$100 minimum order requirement.*
- **In terms of last mile delivery,** TGT says the explosive growth in same-day services (up 235% in 2020) has made majority of DTC orders available within hours. WMT is powering its same-day ambitions through Walmart+ from 3200 locations and Express Delivery (testing in 3 markets). Both BJ and COST have same-day delivery for grocery via Instacart.

Figure 78: Discounters' and Clubs' Online Capabilities Chart

	E-com as % of sales			2020 Online Sales Contribution to Comp (U.S.)	Curbside pick up	BOPIS	Same day delivery?	Ship from store?	Fulfillment for online purchases?	Requirement for free shipping?	Paid online ads on app/website?	Mobile site/app?	Local inventory availability on app or mobile website?
	2018	2019	2020										
WMT (US)	4.7%	7.1%	11.6%	5.6%	3,800 stores (grocery plus a selection of gen merch)	All	From >3,200 stores	>3,000 locations	40 dedicated	\$35 minimum (free with WMT+ on gen merch)	Yes	Yes	Yes
COST	4.3%	4.9%	6.0%	ND	None	Yes (for select categories inc. jewelry, handbags & PCs)	Yes (via Instacart in US locations)	No (excluding Instacart, 2-day grocery from business depots)	Some business depots for 2-day grocery shipping	\$35 for minimum for same-day via costco.com and \$75 min. via CostcoGrocery	NA	Yes	Yes
TGT	7.1%	8.8%	17.9%	12.1%	1.8-1.9K stores (rolling out refrigerated items)	All	In more than 5K cities in all major markets via Shipt	~75% of online sales are shipped from 1,400 stores (of ~1,800 stores)	Regular DCs, 5-10 FCs, vendor-direct and from 1,400 stores	\$35 minimum (free with shipped and REDcard)	Yes	Yes	Yes
BJ	<1%	~1%	~6%	ND	All clubs	All clubs	Yes via Instacart	No	Regular FCs	\$35 minimum	NA	Yes	Yes

Source: Company reports and J.P. Morgan estimates.

Figure 79: Discounters' and Clubs' Online Pricing and Products

SKUs offered								
In-store		Online	Private label %	Expanded categories online?	Pricing different online?	Price match to own website?	Price match other brick & mortar retailers' online prices?	Other
WMT	120K	80MM with online partners	Not disclosed	Everything, particularly electronics, apparel, and home	Generally the same	Yes	'Follow EDLP policy'	2021 initiatives: (1) Rolling out Express Delivery in Atlanta after two other markets previously (2) Expect WMT Connect to make WMT one of the top 10 online advertisers over the next few years in US
COST	3,700	~8,000	~25% (excluding gas)	Yes including appliances, electronics, jewelry, etc.	Yes (higher online with service fee or shipping fee)	No	No	2021 initiatives: (1) Costco Logistics (formerly Innovent) adding vendors and moving to direct ship from drop-ship for several items (2) Testing curbside pickup in 3 New Mexico locations
TGT	80-100K	~1MM	~33%	Key categories in the store (e.g. baby section) and media & entertainment	B&M prices competitive with local players	Yes (generally)	Yes through price matching program (up to 14 days post purchase)	2021 initiatives: (1) Remodel front end of ~1,000 locations over 3 years to facilitate fresh and perishables pickup
BJ	7,200	ND	22%	Yes	Generally the same	Generally, yes	Generally, yes	(1) Rolled out curbside pick up (including fresh) in all clubs in 2020

Source: Company reports and J.P. Morgan estimates.

WMT: Gen Merch Share Gains Key to the Story

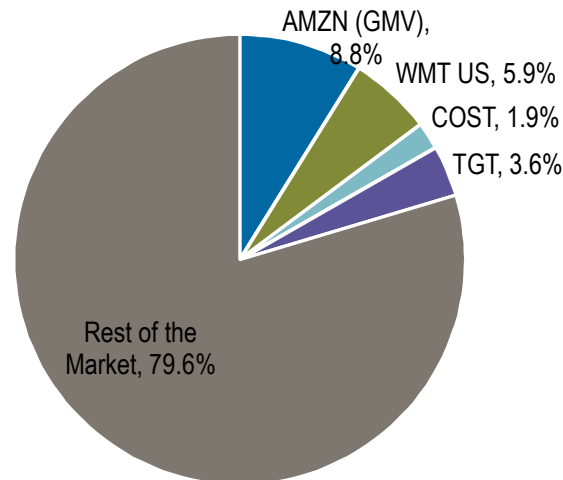
Bigger picture, WMT is looking to maintain/grow its ~22% share of the grocery market (55% of its assortment) through initiatives like delivery, WMT+, and curbside and then gain share in general merchandise, which has a higher mix online (and has higher merchandise margins than grocery). Indeed, as we see below, WMT accounted for ~low 20% of the US grocery market share, followed by KR at 10%, and COST at ~6% in 2019. In gen merch, however, WMT's share we estimate was ~6% in 2020, trailing AMZN at ~9% but ahead of TGT's ~4%.

Figure 80: Top 25 Grocers, 2019

	Company	Sales (billions)	Market Share	% of Total PCE - Food at Home
1	Walmart	\$228.06	21.9%	22.1%
2	The Kroger Co.	\$107.49	10.3%	10.4%
3	Costco Wholesale Corp.	\$65.99	6.3%	6.4%
5	Ahold Delhaize	\$44.84	4.3%	4.3%
6	Amazon (incl Whole Foods)	\$42.22	4.1%	4.1%
7	Sam's Club	\$38.70	3.7%	3.7%
8	Publix Super Markets Inc.	\$38.11	3.7%	3.7%
9	Target Corp.	\$36.11	3.5%	3.5%
10	Walgreens Boots Alliance Inc.	\$27.39	2.6%	2.7%
11	H-E-B	\$26.31	2.5%	2.5%
12	Dollar General Corp.	\$21.61	2.1%	2.1%
13	Meijer Inc.	\$20.26	1.9%	2.0%
14	Aldi Inc. (USA)	\$19.81	1.9%	1.9%
15	CVS Health Corp.	\$19.38	1.9%	1.9%
16	7-Eleven Inc.	\$17.76	1.7%	1.7%
17	Wakefern Food Corp.	\$16.64	1.6%	1.6%
18	Trader Joe's Co.	\$14.79	1.4%	1.4%
19	Dollar Tree Inc.	\$14.55	1.4%	1.4%
20	Hy-Vee Inc.	\$10.60	1.0%	1.0%
21	Associated Wholesale Grocers	\$9.66	0.9%	0.9%
22	Giant Eagle	\$9.50	0.9%	0.9%
23	BJ's Wholesale Club	\$9.28	0.9%	0.9%
24	Wegmans Food Markets Inc.	\$9.00	0.9%	0.9%
25	WinCo Foods LLC	\$8.16	0.8%	0.8%

Source: J.P. Morgan estimates and Progressive Grocer, Company reports.

Figure 81: Walmart U.S.'s Small Share of the 2020 General Merchandise Market, 2020



Source: U.S. Census Bureau, Company filings, J.P. Morgan estimates.

Walmart has been a busy bee under the leadership of Doug McMillon as it invests to compete with AMZN. Key recent initiatives/news include: (1) Introduced [Walmart Fulfillment Services \(WFS\)](#), a service where select sellers can leverage WMT's supply chain capabilities including storing, picking, packing and shipping items to handling of returns and customer service, for a fee. (2) [Sold Vudu](#), a video service platform, to Fandango for an undisclosed amount. (3) Sam's Club launched curbside pickup at all stores [nationwide](#) in June. (4) [Acquired](#) the technology platform, patents and key intellectual property of CareZone, which has developed a mobile app that helps individuals and families manage medicine and chronic illness for each member of the household. (5) [Partnered with Instacart](#) for same-day services in August. (6) Joined Oracle in a bid to purchase TikTok. (7) [Launched Walmart+](#) in September, a new membership program costing \$98/year or \$12.95/month to get unlimited deliveries free of cost along with other benefits. Later in December, WMT waived the \$35 minimum order requirement for plus members who now get free shipping on walmart.com. (8) Agreed to sell [ASDA](#). (9) Launched [Walmart Insurance Services](#), a licensed insurance brokerage, which will assist people with enrolling in insurance plans. Walmart Insurance Services began selling Medicare insurance plans during last year's Annual Enrollment Period (AEP), Oct. 15 through Dec. 7. (10) [Launched](#) pet care services. Also [partnered](#) with Nationwide, the nation's largest pet insurer, to help families with pets save time and money when filling their pet prescription medications at WMT's 4,700 pharmacies across the country. (11) Agreed to [sell](#) majority stake of Seiyu in Japan (narrowing down its global focus to key markets). (12) [Acquired](#) peer-to-peer delivery service platform, JoyRun. (13) Flipkart's PhonePe [valued](#) at \$5.5B as it became a separate entity. (14) [Partnered](#) with Ribbit Capital to offer next generation digital financial products. (15) Marc Lore [retired](#) as CEO of US E-commerce, passing the baton to Casey Carl, founder of North Coast Ventures and a former TGT executive who joined WMT in September 2020. (16) [Announced to scale](#) the number of stores that will also serve as local fulfillment centers. (17) [Announced](#) expanded vision and new name for its advertising/media business, Walmart Connect. (18) WMT also announced it is implementing wage increases for ~425K associates on March 13th, raising the average associate wage to \$15.25/hour.

New LDD EPS Algo in Focus. As we wrote in our Analyst Day [note](#), WMT spoke of a new LT algo driven by its core and alternative revenue opportunities. Looking beyond 2021, the new earnings algo features 4%+ topline (US comps ~3%e and international growth higher), flattish gross margin, 20 bps of expense/operating margin leverage yielding +HSD operating income growth plus ~1.5% for share repo (i.e., a LDD % EPS algo +1.5% dividend = ~LDD total shareholder return). *The big difference vs. the old “productivity loop” is that gross margin is no longer assumed down given the scaling of its alternative profit pools (and we see the potential for periods of GM expansion).*

WMT: Leveraging its Assets for Alternative Means to Boost Sales, Margins, and the Investment Flywheel

2021 Investment Year to Catch Up to e-Commerce Growth of 2020. 2021 is an investment year as WMT accelerates investments in supply chain, technology, automation, and its associates to expand capacity and drive its omni-channel ecosystem (given COVID-19 drove online adoption three years ahead of plan). WMT is scaling its automation capabilities, using robotics to pick and palletize items by store, department, and aisle to improve productivity and in-stocks. The company also plans to build out >100 market fulfillment centers within the next couple of years to make the picking process faster and more profitable.

Alternative profit pools: advertising and 3P furthest along; WMT+ building. WMT is focused on scaling its alternative profit streams including marketplace, healthcare, financial services, advertising, Walmart+, and fulfillment services. These often higher margin areas leverage assets unique to WMT to drive customer satisfaction, share, and alternative profit pools for reinvestment and shareholders returns.

The company also believes health and wellness and financial services are adjacent to its core business and a natural fit with customers. WMT now has 20 WMT Health Centers with more in the pipeline and noted it has a head start with its new FinTech start up in collaboration with Ribbit Capital because its platform lowers the customer acquisition costs.

Walmart Connect/Advertising: 10 bps of GM Potential Annually to US Margin
In terms of advertising, WMT expects its platform to be a multi-billion dollar business in the very near future and to be well within the top 10 advertising platforms in the US five years from now ahead of big players like Hearst, Fox, and Twitter. In January 2021, WMT announced an expanded vision and new name for its media business called Walmart Connect. Formerly known as Walmart Media Group, the new name reflects the company’s ability to accelerate the connection between brands and its 150 million weekly customers. *Walmart Connect is designed to create “ways for partners to be top of mind in Walmart stores, on its digital properties and across the internet in a way that is additive to customers’ experiences. The business will harness Walmart’s vast omnichannel presence, the power of its closed-loop system and knowledge of its customer base to bring brands measurably closer to their intended audience no matter how they shop.”*

Walmart Connect is focusing on three strategic areas to become one of the top ten advertising platforms in the U.S.:

- **Growing offerings across Walmart’s digital properties** including Walmart.com, pickup & delivery and the Walmart App to offer holistic

campaigns including search and display media. In 2020, this segment saw nearly double the amount of revenue and more than double the number of advertisers.

- **Introducing innovative in-store experiences**, offering media activations on in-store TV walls and self-checkout screens with nearly 170,000 digital screens across 4,500+ stores.
- **Expanding offsite media opportunities by leveraging its first-party shopper data** to drive media performance for advertisers outside of WMT's proprietary sites. To that end, WMT announced a partnership with The Trade Desk, an Adtech company, to launch a first-of-its-kind demand-side platform for suppliers and their media and ad agencies in time for the 2021 holiday season. This DSP is expected to ultimately allow advertisers to drive more effectiveness with their overall media spend.

eMarketer [predicted](#) WMT's US online ad revenues could reach \$0.85B in 2020 and become 7% of the online ad market in 2022 vs. ~5% in 2020e. Another article suggested WMT's online ad revenues would reach \$1B in 2020. *Using 75% as a proxy for gross profit margin on online ad dollars and a 50% CAGR (vs. ~74% in 2020e), online ads could generate an incremental ~\$800MM of gross profit dollars for WMT US over the next two years or ~10 bps GM leverage (US) annually.*

Slicing the same data in a different way, assuming WMT commands 1% of US online ad revenue market in the next five years and using 75%e gross profit flow-through, *we estimate WMT's US gross margin rate could see a cumulative tailwind of ~50 bps over the next 5 years.*

Figure 82: US Online Ad Revenues (\$MM, excluding WMT)

	2015A	2016A	2017A	2018A	2019A	2020A	2021E	2022E
Google	24,624	29,662	34,967	41,496	48,424	53,165	67,572	75,646
Facebook	8,385	13,558	19,484	26,489	33,493	40,576	53,715	63,182
Amazon	1,231	2,110	3,338	5,391	7,982	12,528	18,810	23,982
Snapchat	56	361	663	824	1,184	1,774	2,879	4,072
Twitter	1,278	1,361	1,159	1,354	1,635	1,739	2,254	2,895
Pinterest		292	449	715	1,026	1,425	2,023	2,533
Yelp	471	645	776	907	977	836	966	1,095
Criteo	197	279	371	374	373	325	358	385
Rest	23,308	24,371	27,059	29,936	29,519	27,661	20,880	19,389
Total Online Ad Spend	59,551	72,640	88,266	107,487	124,613	140,030	169,457	193,181

Source: Company reports, IAB, Magna Global, and J.P. Morgan estimates.

Figure 83: US Online Ad Market Share

	2015A	2016A	2017A	2018A	2019A	2020A	2021E	2022E
Google	41.4%	40.8%	39.6%	38.6%	38.9%	38.0%	39.9%	39.2%
Facebook	14.1%	18.7%	22.1%	24.6%	26.9%	29.0%	31.7%	32.7%
Amazon	2.1%	2.9%	3.8%	5.0%	6.4%	8.9%	11.1%	12.4%
Snapchat	0.1%	0.5%	0.8%	0.8%	0.9%	1.3%	1.7%	2.1%
Twitter	2.1%	1.9%	1.3%	1.3%	1.3%	1.2%	1.3%	1.5%
Pinterest		0.4%	0.5%	0.7%	0.8%	1.0%	1.2%	1.3%
Yelp	0.8%	0.9%	0.9%	0.8%	0.8%	0.6%	0.6%	0.6%
Criteo	0.3%	0.4%	0.4%	0.3%	0.3%	0.2%	0.2%	0.2%
Rest	39.1%	33.6%	30.7%	27.9%	23.7%	19.8%	12.3%	10.0%
Top 6 player and below	40.3%	34.8%	32.0%	29.0%	24.8%	20.6%	13.1%	10.8%

Source: Company reports, IAB, Magna Global, and J.P. Morgan estimates.

Figure 84: Estimated Online Ad Revenue and Gross Margin Tailwind of WMT US

Est. total US online ad revenue in 5 years at 15% CAGR (\$MM)	340,839
Estimated WMT share in 5 years as one of top 10	1.0%
Potential WMT online ad revenue in 5 years (\$MM)	3,408
Est. WMT online ad revenue in 2020 (\$MM, per eMarketer)	850
Est. gross margin rate on ad business	75%
Est. gross profit tailwind (\$MM)	1,919
Potential cumulative GM rate benefit over 5 years	0.5%

Source: Company reports, IAB, Magna Global, and J.P. Morgan estimates.

3P + WFS (Walmart Fulfillment Services): ~10 Bps of Gross Margin.

Launched in February 2020 (its first shipment done in August), WFS is a service where select sellers can leverage WMT's supply chain capabilities including storing, picking, packing and shipping items to handling of returns and customer service, for a fee (a la Fulfilled by Amazon, FBA). WFS will help WMT to grow 3P assortment to rival AMZN (especially in gen merch), consolidate orders, speed up delivery, reduce cost of delivery per item, and earn fees along the way. Indeed, part of the strategy with launching WFS LY was to get the top 1MM of SKUs in its warehouse, and build from there. Recall, WMT has said the top 1MM SKUS represent 80% of the web product searches.

WMT commented that with existing sellers they still have a small penetration of their product portfolio and there's 'strong appetite' in the seller community for the WFS service (as an alternative to AMZN's FBA). *The incentives for a seller to be on WFS (who may already be on FBA) include: leveraging WMT's expansive supply chain capabilities, diversify revenue sources, faster delivery, and better pricing.* WMT Connect, the online ad services unit, is also complementary to WFS to boost seller sales on the Walmart website. For relatively new sellers, WMT Connect can help to find customers (solving the most expensive cost of small businesses - acquiring customers). WMT also noted momentum in its marketplace business with plans to accelerate it through strategic partnerships with Shopify, Channel Advisor and PayPal.

While still in early stages, using AMZN's estimated ~35% estimated take for its FBA service, and assuming ~5% incremental growth in WMT's US e-comm sales given the broader WFS fulfilled, 3P assortment, suggests and incremental ~\$750MM in WFS fees annually. The margin tailwind will ultimately depend on the fulfillment cost based on: 1) the category; 2) weight/size; 3) length of time stored in an WMT warehouse. If we assume a 15-20% of the take rate flows to gross profit, that's ~5 bps of GM tailwind to WMT US on ~\$750MM of incremental GMV sales discussed above. In addition, assuming 3P GMV grows an incremental 5% would add another ~5 bps to US GM assuming a 15% take rate similar to AMZN.

WMT+: same-day delivery game that likely resonates more in its core markets.

Walmart+ remains early on as the company is primarily focused on customer satisfaction (vs. growing memberships) as it continues to add capacity and expects to add more benefits to the membership over time.

We thought it would be helpful to summarize the key benefits of the various grocery and merchandise delivery services available in the market to compare how Walmart+ stacks against them. Our key takes are: (1) From a membership fee and order minimum perspective, most membership offers have similar features, but the real

difference comes down to coverage and speed. (2) Target Shipt and Instacart Express have the benefit of having multiple retailers (e.g., HEB, Meijer, and Costco on Shipt and Costco, Publix, CVS and more on Instacart) on the platform where customers can shop freely whereas Walmart+ is for Walmart stores only. (3) AMZN's main advantage is the single Prime membership allows access to grocery delivery, and a host of other perks including music and video.

Net-net, WMT+ is built on a same-day grocery delivery backbone with the convenience of the incremental 80K SKUs of general merchandise in the store (not an endless aisle). For the core WMT shopper in markets where it has high grocery share, this makes a lot of sense, in our view. That said, for the same cost, if one subscribes to Instacart or TGT's Shipt, the member gets a much wider offering. Lastly, WMT's skew towards lower income shoppers could also limit "how big is big" for WMT+.

Figure 85: Comparison of Grocery Delivery Membership Services

	WMT+	AMZN Prime/Fresh	TGT Shipt	Instacart	Peapod	FreshDirect
Yearly Membership Cost	\$98	\$119	\$99	\$99	\$119	\$129
Monthly Membership Cost	\$12.95	\$12.99	None	\$9.99	\$69/6 months	\$79/6 months
Free Trial	30 days	15 days	28 days	14 days	60 days free post membership	60 days free post membership
Free shipping	>\$35 for grocery; free for others	>\$35 orders	>\$35 orders	>\$35 orders	>\$30 orders	>\$30 orders
Streaming/Media Service	No	Yes	No	No	No	No
Prescription savings	Up to 85% discount on thousands of prescription medication	Up to 80% discount on thousands of prescription medication	-	-	-	-
Fuel discount	Yes	No	No	No	No	No
Coverage	~3,200 out of ~4,700 US locations	2,000+ cities	5,000+ cities	'thousands of cities globally'	New England/Mid Atlantic	Available in NY/NJ/CT/PA/DE/W DC

Source: J.P. Morgan estimates, Company data.

TGT: Stores at the Center; Perishable Grocery Pick Up and Supply Chain Transformation Coming

Same-day services the breakout star of 2020. In 2020, TGT saw a >600% increase in its curbside Drive Up offering, in addition to a ~70% increase in order pick up and Shipt growth of >300%. In 2020, TGT expanded apparel to the Shipt delivery while doubling its shopper network, as well as adding more than 1000 Drive Up spots. TGT continues to optimize the same-day experience, adding the ability for guests to share more preferences in the app for Drive Up orders while it is numbering the Drive-Up spots so team members can find guests more quickly. Today, the majority of store assortment is available through same-day services but TGT will expand pick up options further into categories like apparel and fresh food and will roll out adult beverage pick up to 800 more stores.

Continued supply chain transformation. While stores continue to fulfill the majority of digital orders against the record online growth in 2020, TGT reiterated that the current store footprint has ample capacity. That said, TGT plans to invest in upstream capacity to increase replenishment capacity and will open two new DCs in 2021 with plans to open two more in 2022. To add capacity and further scale its stores-as-hubs model, TGT is testing a sortation center in Minneapolis and expects to open five more in 2021. This sortation center collects online orders from local stores and sorts them into efficient routes for carrier delivery pulling the sorting activity out of store back rooms. This process increases store fulfillment capacity, reduces last mile fulfillment costs, and speeds delivery to guests. In addition to third party delivery agents like UPS and USPS, Shipt will also step in and deliver when it makes sense.

TGT also continues to simplify the unload process once product reaches the stores using robotics to sort inventory for team members to replenish shelves as well as its

robotics sorter in its Perth Amboy facility. This spring, TGT plans to put these robotics solutions in one warehouse to test how they bring more precision and speed to store replenishment before scaling further. TGT also plans to continue the rollout of its predictive inventory positioning capability across its assortment enabling it to react quickly to changes in demand thereby improving out of stocks and reducing back room inventory.

Importantly, its more narrow assortment online/high crossover to stores (vs. WMT's push to be the endless aisle, everything retailers a la AMZN) is a critical foundation to leveraging its stores as the center of its fulfillment strategy.

Ramping up remodels again + ~30-40 more small format openings in FY21 and foreseeable future. TGT completed ~130 remodels in 2020 vs. its expectations for ~300 given it paused the program due to COVID-19. The company expects to complete 150 remodels in FY21 and will ramp to ~200 stores per year in 2022 and beyond. Part of this remodel is to add refrigeration near the front of stores for perishables Drive Up and BOPUS, in addition to adding shades/canopy's for associates to load cars more efficiently and safely. TGT opened 29 small format stores in 2020, bringing the total to ~130 stores and expects to open 30-40 per year for the foreseeable future in key urban markets and college campuses. The future store design will focus on safety and ease, with additional contactless features, updates that facilitate same-day fulfillment, and more room for social distancing.

From a merchandising perspective, TGT saw ~\$9B of market share gains across all give categories in 2020 and is focused on locking in last year's gains and continue to deepen guest engagement to drive long-term growth. TGT sees the opportunity to continue developing and launching new owned brands while it also becomes an increasingly attractive partner for leading brands, in addition to improving its planning and allocation algorithms. TGT has a portfolio of ~30 owned brands with ten >\$1B and four >\$2B and plans to launch several additional owned brands in 2021. In terms of national brands, TGT is building on its recent partnerships with national brands Levi's and Disney as it launches ~100 Ulta shop-in-shops in 2021 with plans to add hundreds more over time as well as introducing a new Apple shipping destination online and in 17 stores with more locations scheduled to roll out this fall. The company expects to have many more partnership opportunities and will be thoughtful in approaching each of them (suggesting TGT has the leverage in the negotiations). Lastly, Target Circle now has ~90MM active members (vs. ~50MM LY) and TGT will continue to use the program to deepen its engagement with its guests.

Figure 86: TGT's Fulfillment Cost Savings Commentary

Cost Savings	Comment
Ship from store	40% cheaper per unit than upstream shipping
BOPIS/Drive-Up	90% less than warehouse fulfillment
Overall cost savings with various fulfillment strategies	In 2018, lowered average unit cost of fulfillment by 20% ('saved 100s of MMs of \$')

Source: Company documents.

COST: Slow and Steady on BOPIC; Leaning into Big & Bulky Online

Following Sam's Club and BJ's footsteps, COST began testing curbside pickup in 3 New Mexico locations for 2K food and non-food items beginning this year, although carries a \$10 fee and a \$100 minimum order requirement. We believe this will continue to be expanded, albeit perhaps not to all locations given high store volume considerations, given competitors have made it tablestakes at this point.

The club model is built on hyper-efficiency of a limited assortment of products at very low margin rates being supplemented by the membership fee. Online "unlocks the box" to an expanded assortment online such as offering patio furniture year round, an expanded appliance, mattress, home fitness equipment, and OPE assortment, and limited time offerings of product that other retailers and wholesalers might sell to COST to clean inventory

Costco Logistics (formerly Innovent) driving strength in bulky item sales. Recall, in the latest bid to amp up e-commerce fulfillment of bulky items (home furnishings, appliances, sporting goods to name a few), COST [acquired](#) Innovent for \$1B in 2020. COST anniversaries the purchase of Innovent this quarter (was 5-6 bps GM drag in each of the past 4 quarters). Most recently, e-commerce sales fulfilled by Costco Logistics was up 53% during the 3rd quarter, fulfilling about 70% of all US big and bulky orders. COST continues to add new vendors and is taking direct delivery of many items previously drop-shipped, thereby reducing delivery times to 5-7 days from ~two weeks and also reducing prices for members.

Longer-term, we believe online share is a key part of the COST bull case (only 6% of sales) as the engaged member both wants to spend more at COST given the value/quality and cash back, and is patient to wait on the delivery side, especially for the big and bulky product noted above. This also doesn't "blow up" the limited SKU assortment of the club efficiency model.

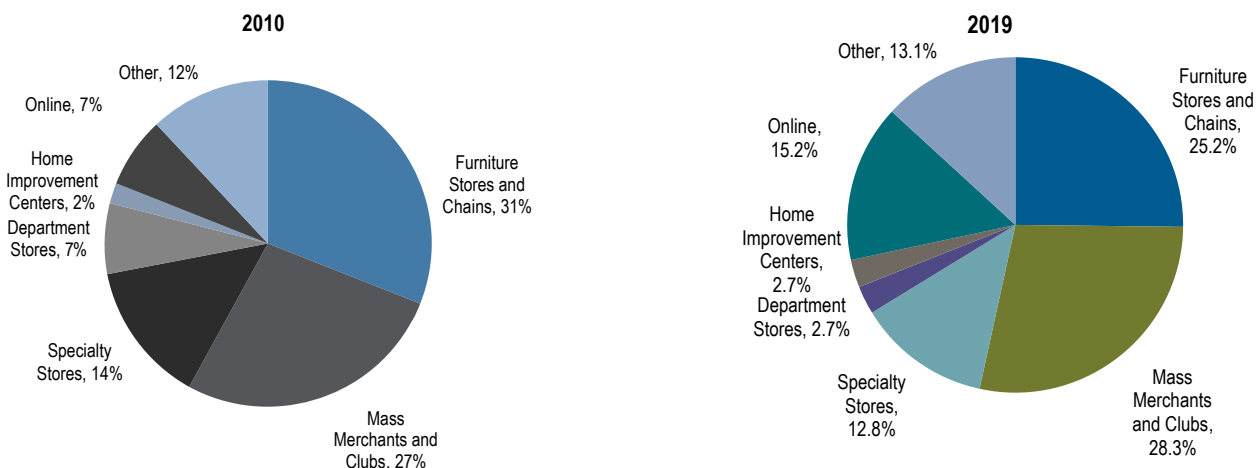
BJ: COVID-19 Expedited Omni-channel Offerings

While e-commerce sales still remain a small portion (~5%) of BJ's overall sales, the investments the company has made in e-commerce/omni-channel capabilities are necessary as it competes with grocers and two larger scaled competitors. **More specifically, (1)** BJ now has curbside pickup in all locations since late 2020; **(2)** BOPIC now available in all clubs as well; **(3)** BJ offers same-day delivery to all markets via Instacart since 2018; **(4)** BJ re-platformed its website in 2017 that provides add-to-card digital coupon clipping, real-time gas prices at local warehouses, local warehouse information, and access to membership information. Additionally, the mobile app provides a streamlined membership sign-up and upgrade, expanded assortment; and, **(5)** BJ's offers an online-only membership for \$10.

Home Furnishings: Online Growth and Penetration Catapulted By COVID-19

Home furnishings product tends to be highly amenable to e-commerce penetration given its decorative and non-branded focus on the furnishings side (and the ability to offer many customization options through the endless aisle), plus its strong catalog-based heritage (i.e., simply buying from pictures), and many branded, big-ticket durables in the kitchen area. The omni-channel model can be quite powerful here as the in-store experience of inspiration is supplemented by the option to customize online (color, size, and other options). We also point to Wayfair's success and WSM's ~70% e-commerce mix (mid 50s pre-COVID-19) and RH's ~40% e-commerce penetration (pre-COVID-19) driven by source books as central to their marketing strategy.

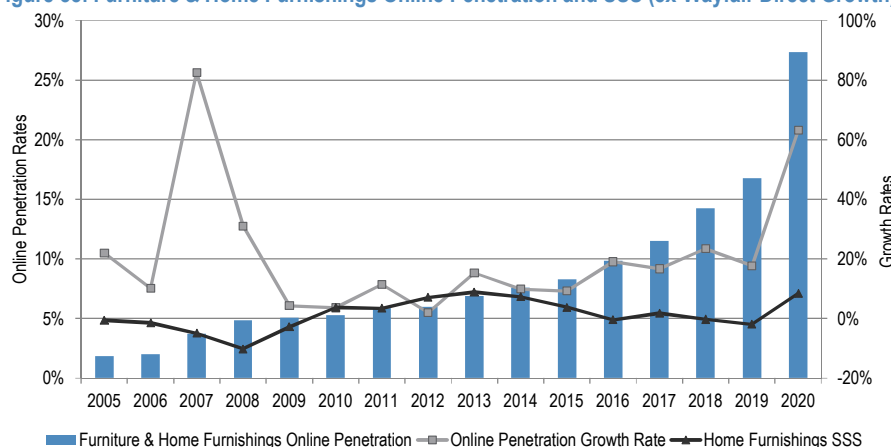
Figure 87: Home Furnishing Sales by Channel 2010 vs. 2019



Source: Home Furnishings News (HFN). 2020 data are expected to be released later this year

According to our proprietary analysis, online penetration including mobile in home furnishings grew to ~27% of the total sales, up from 17% in 2019 (HFN has it at ~15%). As discussed in the "Tracking Online Encroachment" section, *online-only* sales grew ~36% in 2020 in the pure home furnishings category (Wayfair sells numerous home improvement items), up from 21% seen in 2019. Brick and mortar sales were down ~17% in 2020 due to specialty closures, below ~3% in 2019.

Figure 88: Furniture & Home Furnishings Online Penetration and SSS (ex-Wayfair Direct Growth)

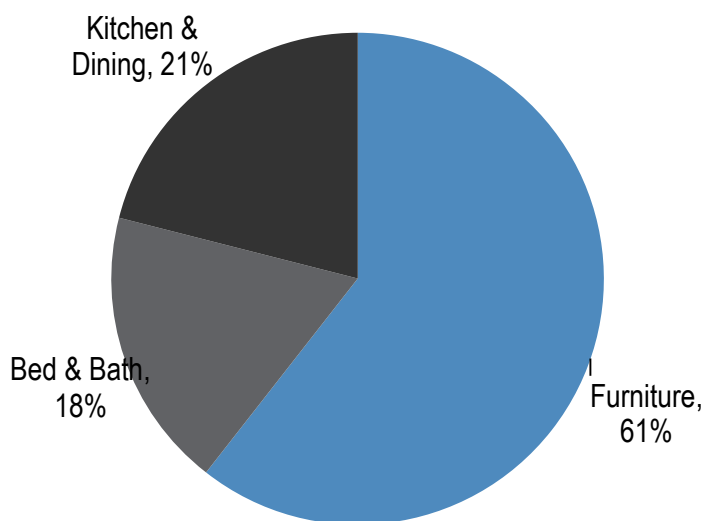


Source: Company reports, comScore, Census data, and J.P. Morgan estimates.

Furniture: Leading Category in 2020 on Housing Boom

The online portion of the category is broken down into Furniture (61%), Kitchen & Dining (21%), and Bed & Bath (18%). Furniture grew the fastest at 52%, followed by Bed & Bath at 25% and Kitchen & Dining 12%. This which benefits WSM's >60%e mix in the category and RH's ~70% (we estimate Wayfair is ~40%). Note that our estimates exclude Home Appliances, which are included in the Home Improvement category.

Figure 89: Estimated Breakdown of Online Furniture & Home Furnishings Sub-Categories in 2019



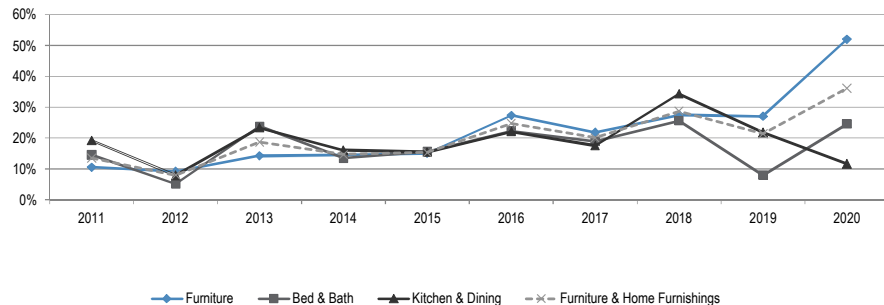
Source: comScore data and J.P. Morgan estimates.

Figure 90: Furniture & Home Furnishings Subcategory Breakdown, 2019

Subcategories	Definition
Furniture	Tables, bedframes, mattresses, sofas, rugs, desks, filing cabinets, desk chairs, office furnishings
Kitchen & Dining	Flatware, cookware, silverware, kitchen accessories, counter-top kitchen appliances
Bed and Bath	Comforters, shams, pillow-sets, bedsheets, bathroom sets, shower curtains

Source: comScore data and J.P. Morgan estimates.

Figure 91: Furniture Grew the Fastest (Again) in 2020 By a Much Wider Margin



Source: comScore data and J.P. Morgan estimates.

Wayfair Swings to Profits Given COVID-19 Surge and Efficiency Push Prior to the Pandemic

W's US sales growth accelerated to 54% in 2020 after 34% the prior year with US EBITDA rate reaching a record 8.8% (vs. -2.3% the prior year). Before the pandemic began in late 2019, W pivoted to improving margin and spoke of optimizing ad spend in 1H20 to reach EBITDA profitability in the US in 2020. Then COVID-19 related lockdowns came in mid-March with all B&M home furnishings retailers closed through most of June. W benefitted from this, and from stimulus check payments to consumers, resulting in sales growth accelerating from high teens in Feb/early March to 40% by the end of the month and 84% in 2Q20, then decelerating to 67% in 3Q and 41% in 4Q.

Mid-teens EBITDA margin bull case. W now [believes](#) that the previous long term EBITDA margin target of 8-10% is now moot, given the many revenue and margin driving initiatives (i.e., media services, supply chain services, logistics networks efficiency, and scale) that are underway and expected to largely benefit the gross margin line (totaling 1000 bps of potential tailwinds with an undefined portion reinvested). We believe media/advertising revenue can add a LSD% to revenue in the medium term with gross margins 60%+. For FY21, management remains confident about EBITDA \$ growth while margin rate may vary by quarter.

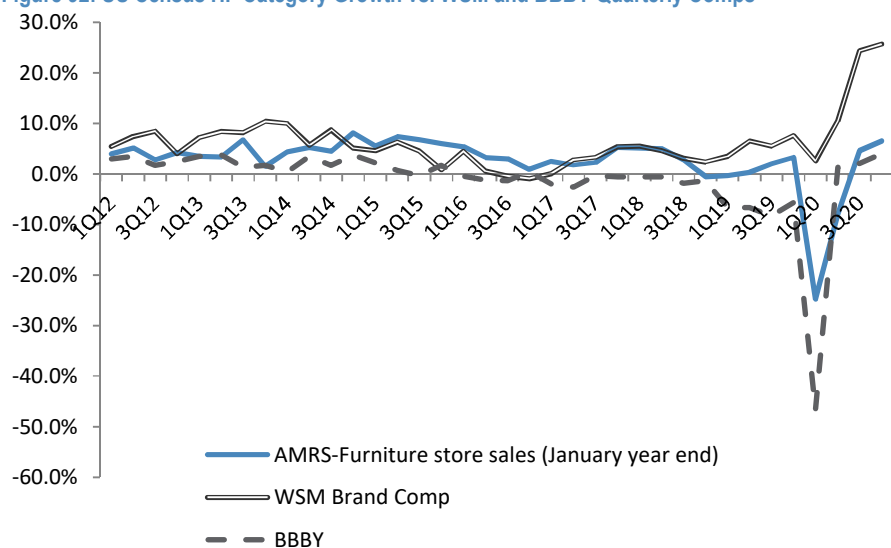
WSM Gained Share in 2020; Bullish Long Term Sales and Margin Algo despite Plans to Downsize Footprint

Following record comp growth in 2020, WSM struck a bullish tone on the long term guide saying its growth initiatives and key differentiators have accelerated its target of \$10B revenue and 'at least' 15% op margin by 2025 (we believe the latter will occur this year on record merchandise margins/low promos vs. record demand). WSM's heritage catalog business gave it a lead in online retailing with expertise in visual merchandising and fulfillment. Last year, DTC sales represented ~70% of sales. As indicated below, WSM recovered in 2018 after trailing Census home furnishings growth in 2017 (though 4Q18 receded) and gained share in 2019, which accelerated in 2020 as the company leveraged its legacy omni-channel capabilities amid specialty store closures, renewed focus on acquiring customers digitally, introduced a multi-brand loyalty platform called the Key, implemented BOPIS for all major brands, introduced a marketplace on the PB website, and shifted marketing dollars to top of the funnel online advertising. The company also announced 25% net store closures over the next 5 years (primarily across the PBK and WS brands).

Bridging to \$10B revenue potential by 2025 vs. \$6.8B in 2020. WSM expects to attain M-HSD annual revenue growth over the next five years to reach \$10B in 2025 with \$3.3B in incremental revenues from the major brand including Pottery Barn growing DD to ~\$3.5B from \$2.5B currently, West Elm doubling to \$3B from currently \$1.5B, Williams-Sonoma reaching \$1.6B (vs. now \$1.2B), and Pottery Barn Kids and Teens business to \$1.4B (vs. \$1B in 2020). This expected strength in the core business is to be fueled by key initiatives including B2B business expanding to \$1B from \$360MM in 2020, marketplace revenues growing almost 3x to \$700MM+ vs. ~\$270MM in 2020, emerging brands expanding to a combined revenue of \$600MM+ vs. \$290MM in 2020, and global operations more than doubling in size to \$700MM vs. ~\$300MM in 2020.

LT op margin of 15% through shift to e-commerce. WSM expects op margin to reach 15% by 2025 with GM expansion expected from improving selling margin aided by in-house design, content driven marketing, delivery efficiency, and occupancy leverage (at least 25% of the store fleet to close), while SG&A should benefit from expenses growing slower than the topline and its strong CRM database that was elevated by pandemic buying.

Figure 92: US Census HF Category Growth vs. WSM and BBBY Quarterly Comps*



Source: US Census Bureau, J.P. Morgan estimates, Company data.*US Census category growth calendarized to WSM

BBBY: New Management Team Accelerating Online Investments

Recall in 2019, plagued by continued share loss (see figure above) and slower-than-expected sales and margin turnaround, BBBY saw three activist investors (Legion Partners, Macellum Advisors, and Ancora Advisors) nominate 16 candidates heavy with retail turnaround experience for BBBY's board, asking for full control of the company and noting the need to change the current CEO while laying out a long list of historical underperformance metrics and identifying big picture strategy improvements. CEO Steven Temares resigned shortly thereafter (May 2019) and BBBY named Mark Tritton as CEO in October 2019. Mark was previously Chief Merchandising Officer at TGT and brings a powerful resume of private label leadership (which was one of the opportunities identified by the activists) and was a key figure in TGT's e-commerce turnaround. In his first six months on the job, Mark

completely overhauled the BBBY management team, making the following appointments: Gustavo Arnal as CFO, John Hartmann as COO and President of buybuy BABY, Joe Hartsig as Chief Merchandising Officer and President of Harmon, Gregg Melnick as Chief Stores Officer, Rafah Masood as Chief Digital Officer, Cindy Davis as Chief Brand Officer and President of Decorist, and Arlene Hong as Chief Legal Officer.

Merchandising strategies focused on curating assortment, reducing costs, and strengthening inventory management. BBBY plans to completely reset its assortment to provide a more curated, inspirational and differentiated product collection across categories. Moreover, the company plans to expand its opening price point and value offering while narrowing its better SKU count (i.e., more bar belled) while expanding its assortment in beauty and baby to capture share. To do this, the company is conducting a data-driven line review process with 40 categories reviewed so far, representing 35% of sales. Additionally, BBBY is launching >10 new owned brands with 6 launched ahead of the Back to College season this fall with the goal of reaching ~30%+ private label penetration over the next three years vs. ~10% in 2020. We estimate this represents a 200-bp opportunity within GM as the company discussed a 1000-bp gross margin differential between owned brands and national brands. BBBY noted it is on track to deliver \$200-\$250MM (~275 bps) in sourcing benefits in the next three years by reducing the number of suppliers and successfully negotiating with existing vendors. So far, the company has addressed ~20% of COGS (60 vendors) and secured \$100MM in savings while cutting the number of suppliers in half.

Combined with the private label target, this represents ~400-450 bps of gross margin tailwinds and hence the 38%+ target for FY23 (vs. our 34.8%e for FY20 with e-commerce growth a potential offset). The remaining \$100-\$150MM in savings from the sourcing effort is in progress as BBBY addresses another 50% of COGS (~740 vendors). With regards to inventory management, the company is centralizing processes, using new forecasting tools to drive higher in-stocks, and improving markdown management with a goal of reaching 3.5x+ inventory turns within 3 years vs. ~2.5x today.

Pain on pricing largely taken with a keen focus on its price-value proposition. BBBY will continue to improve its base price competitiveness across key categories while also addressing assortment gaps, improving promotional efficiency, and strengthening its value communications. The company noted it has already significantly closed the price gap on key price/national items (see pricing survey in the earlier section). On the last Analyst Day, the company noted that it is only 1% higher on national brands now vs. 14% two years ago and 13% below currently with a coupon. Management is addressing assortment gaps in value tiers by increasing the availability of opening price point and good products to compete better with mass retailers and attract new customers. With regards to promotions, BBBY found that ~40% of its promotions were ineffective and is using data and insights to build discipline for effective promotions going forward.

Moving fast in e-commerce. BBBY will continue to improve upon its omni-channel platform, building on the recent launches of BOPIS, curbside pickup, and Same-Day delivery. BBBY has made progress in improving its e-commerce platform and launched 100+ customer-inspired improvements to the website in 2020 to elevate the customer experience, create ease and convenience and convert and acquire new customers. These included much faster load times (7 seconds to 1.5 seconds) and reducing the checkout process to 3 steps from 7 steps prior. The company plans to

improve e-commerce profitability by ultimately leveraging the stores as fulfillment centers with ship from store recently launched in ~400 stores as well as through BOPIS/curbside/same-day delivery with BOPIS currently representing ~20% of digital sales.

AMZN Continues to Push into Furnishings, Although COVID-19 Caused a Temporary Pause

In order to meet unprecedented consumables demand at the onset of the pandemic, AMZN [reportedly](#) deprioritized discretionary items out of its warehouses in March and only [began](#) relaxing in late April. However, AMZN's push into the category in recent years has been widely discussed. In 2017, numerous [reports](#) showed AMZN's increasing interest to make a 'major' push into furniture, home furnishings, and appliances (the latter including the Kenmore partnership). In a statement in 2017, AMZN said it was one of the fastest-growing categories on their site. **AMZN has been rapidly expanding its product selection** (including Ashley Furniture sofas, Jonathan Adler home décor, custom-furniture design services, etc.), while speeding up delivery times (in some cities to 1-2 days). In 2017, Ethan Allen also began a collaboration to offer its products and live chats on an Ethan Allen tailored page on Amazon.com (link [here](#)). In another example, the company is using geo-location services to allow local retailers to sell their goods on Amazon.com (the furniture market is quite fragmented/local). Lastly, since October 2017 AMZN launched [three](#) private label furniture brands in styles that were quite Pottery Barn/West Elm/W's Three Posts- or Mercury Row-esque.

Last mile delivery, however, still remains a contested field where we believe there are no clear winners, yet. Indeed, delivery to the customer's home remains a key pressure point resulting in damage rates, low customer satisfaction scores, and expensive returns.

The Home Depot going After the Category as well

In an effort to drive share of wallet in an adjacent category, HD is taking up its effort in the home furnishings space. As discussed at its [analyst day](#) in December 2017, HD has \$25B+ of décor-related sales already after bringing on 180,000 products from >500 new suppliers in the last year and is now investing in the interconnected decor shopping experience with new photography, "shop by room," and style guides. HD is accelerating decor investments believing it has the "right to win" in several home decor categories after completing research related to housewares, tabletop, interior furniture, wall decor, and textiles. Additionally, the company is leveraging its digital marketing prowess to direct traffic to these products on its website and leveraging existing capabilities to reintroduce home decor catalogs (see photos below), and they have been pleased with results. In December 2017, HD also [acquired "The Company Store"](#) (online retailer) for its expertise and sourcing capabilities in textiles.

WMT Seeing Traction in Home Post Website Improvements and Brand Additions

WMT launched a new home shopping vertical on its website under the Home category to highlight furniture, accessories and decorative items in February 2018. The vertical features 10 shop-by-style options (including mid-century, farmhouse, Boho, etc.) and editorial-style imagery to enable customers to discover different styles and complete looks. More recently WMT launched several brands in the

category including MoDRN and Drew Barrymore Flower Home. Most recently, GAP Home will now be available at Walmart.

Figure 93: Home Furnishings Online Capabilities

	2018	2019	2020	Online Sales Contribution to 2018 Comp?	BOPIS?	Ship from store?	Same day delivery?	Fulfillment for online purchases?	Requirement for free shipping?	Promotional free shipping?	Paid online ads by TPs?	Mobile app/site?	Local inventory availability on app or mobile website?
BBBY	16.0%	17.0%	38.0%	16.3%	All stores	Yes	99% of store locations	5 dedicated online FCs, 1 additional planned	\$39	Yes	ND	Yes	Yes
WSM	54.3%	56.0%	71.0%	NA	Most brands	Select stores	No	The smaller UPS items are shipped from dedicated online FC. Furniture and large UPS orders are shipped from regional DCs that also replenish stores.	\$49 minimum in WS brand; flat rate for furniture	Yes	On PB marketplace	Yes/No App	No

Source: Company reports and J.P. Morgan estimates.

Figure 94: Home Furnishings Online Pricing and Products

SKUs offered							
	In-store	Online	Private label %	Expanded categories online?	Pricing different online?	Price match other brick & mortar retailers' online prices?	Other
BBBY	10,000-12,000	'hundreds of thousands more'	NA	Furniture and personalized items	No (generally)	Yes	Through DoorDash Drive, Bed Bath & Beyond and buybuy BABY websites will expand same-day delivery to over 3,000 additional zip codes across the country, covering 99% of store locations
WSM	N/A	Higher	>90%	PB through marketplace, WS and PBK through 3rd party listings	No (generally)	Yes for WS brand	Closing 25% of stores over the next 5 years

Source: Company reports and J.P. Morgan estimates.

Home Improvement (HD, LOW): Big Jump to a Still Small Penetration

Online Penetration Jumps during COVID-19 Led by Garden & Patio

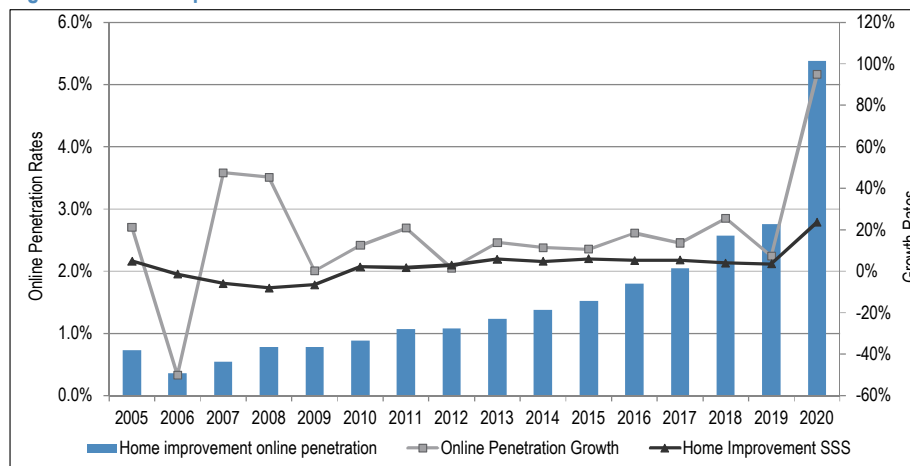
The Home Improvement category growth online growth jumped to 112% from 10% in 2019 driving the category penetration to roughly double to 5.4% vs. 2.8% in 2019. While a big increase, this overall penetration remains low relative to many other retail categories. Indeed, while there are certain categories that are more susceptible to online encroachment (e.g., endless aisle decorative items, patio furniture, appliances, name-brand power tools), but a combination of the project orientation of the category, Pro penetration (~30-40%), and categories like building materials, perishables, and paint keeps risk low (as indicated by ~60% of online orders picked up in store for HD and LOW, respectively).

That said, the Pro customer is increasingly adopting e-commerce (e.g. cabinets, vanities, power tools, and appliances growing quickly online) and we believe COVID-19 will further accelerate the shift to online in some categories. The combined market share of HD and LOW (nearly 50%) keeps vendors disciplined in terms of enforcing MAP pricing and channel management better than other categories. Urgency is often high (e.g., a builder making a trip to the store for a job that day), as are shipping costs (many large, heavy items) and involvement level (picking the precise fastener out of hundreds). From an experience standpoint, in-store expertise may be valuable, particularly for the DIY customer while both DIY and DIFM products are centered around projects. Finally, HD was one of the first to invest in omni-channel capabilities while LOW continues to catch up (e.g., LOW's first dedicated online fulfillment center only went live in 2018).

Garden & Patio Online Growth Jumps

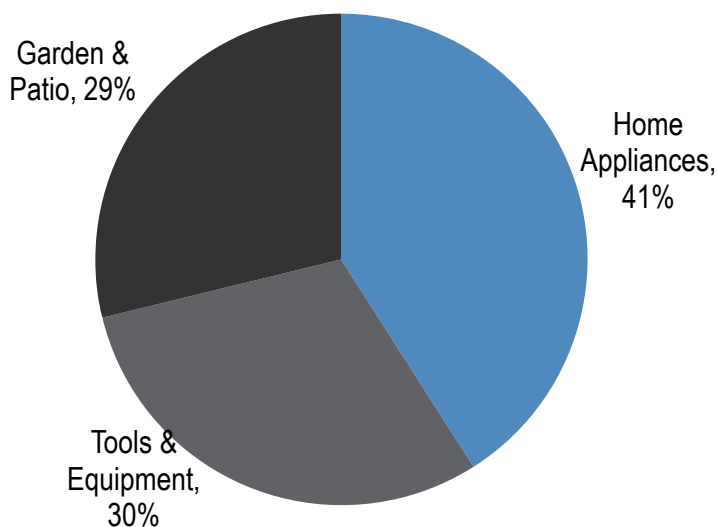
The online portion of the category is broken down into Home Appliances (41%), Tools & Equipment (30%), and Garden & Patio (29%). From a sub-category perspective, Garden & Patio sharply accelerated to 262% (vs. 10% in 2019), Tools & Equipment to 98% vs. 3% LY, while Home Appliances accelerated to 72% (vs. 15% LY). **Stepping back, we believe the focus on outdoor living was a big driver of the stepped up category growth as HD, LOW, and TSCO all spoke to strength in outdoor seasonal from April through the winter from gardening to patio furniture to firepits and outdoor heat lamps. We also believe that HD and LOW's rapid rollout of curbside, including this category, enabled the strong growth.**

Figure 95: Home Improvement Online Penetration and SSS



Source: Company reports, comScore, Census data, and J.P. Morgan estimates.

Figure 96: Estimated Breakdown of Online Home Improvement Sub-Categories in 2020



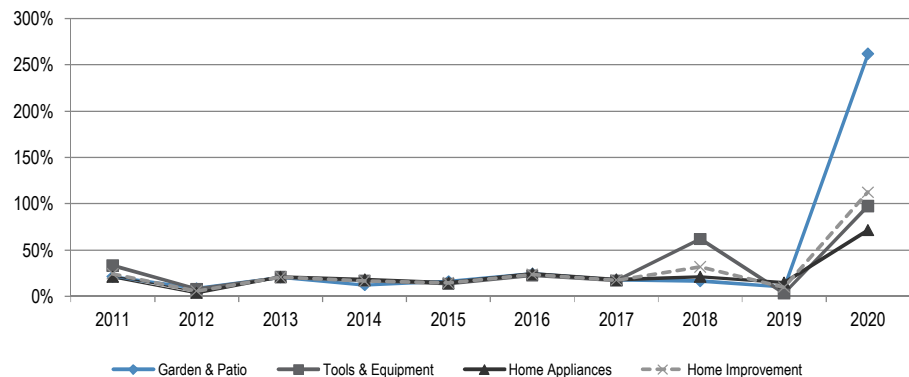
Source: comScore data and J.P. Morgan estimates.

Figure 97: Home Improvement Subcategory Breakdown, 2018

Subcategories	Definition
Home Appliances	Cooking platforms, water filtration systems, refrigerators, washer/dryer units, air conditioners, vacuum cleaners, air purifiers, other large utility appliances
Tools & Equipment	Hand tools, power tools, hardware, building supplies, safety equipment
Garden & Patio	Patio furniture, gardening equipment, outdoor grilling equipment, garden plants & seeds

Source: comScore data and J.P. Morgan estimates.

Figure 98: Stellar Online Growth in All Sub Categories in 2020



Source: comScore data and J.P. Morgan estimates.

HD Continues to Widen the Moat with Investment across Stores, Supply Chain, and Fulfillment

Interestingly, we believe HD remains the omni-channel leader in our space despite being in one of the least susceptible categories and online sales representing ~9% of total revenues in 2019 (vs. category's 2.8%) and 14% in 2020 (vs. the category's 5.4%). HD carries more than 2 million SKUs online and has made various acquisitions over the past few years to expand its assortment such as Blinds.com, Interline, Compact Power, The Company Store, and most recently, HD Supply. To drive Pro wallet share, HD rolled out its Pro CRM software, MyView in 2018, launched its Pro Xtra loyalty program in 2019, and on-boarded >1MM Pros to its new B2B website in 2019.

By the end of 2021, HD expects to have 90% next-day coverage for parcel product with big and bulky coverage by the end of 2021. Over the past 10 years, HD has invested heavily in its upstream supply chain creating an optimal flow network with its rapid deployment centers (RDCs), improving inventory management, and driving further efficacy. In regards to HD's downstream supply chain, the company has built a network of direct fulfillment centers (DFCs), which are able to reach 95% of the US population in two days or less with parcel freight and >50% in one-day currently. These DFCs can hold ~70K more SKUs than a typical store (so ~100K) and HD is continuously working to extend the assortment beyond what they stock themselves.

Re-evaluating incremental distribution facilities needed to reach 90% of the population on same-day/next-day delivery for extended home improvement and MRO product offerings, including big and bulky goods by 2022. As a result of the recent HDS acquisition, we believe HD could open fewer than the original 150 it had planned given HDS's network of 44 DCs (suggesting that the investment cycle may be less than originally planned and/or shorter in time). In the top 40 markets, HD will open ~40 flatbed DFCs that will specialize in big, bulky building materials that are most effectively delivered on flatbed trucks and can be delivered on a next-day or same-day basis. HD is opening ~25 local DFCs that will carry the most delivered store SKUs and Interline MRO SKUs, which will be delivered DTC in the top 40 markets on a next-day or same-day basis to minimize the store's role in these deliveries. Lastly, HD is investing in MDOs with the goal of handling 100% of appliance deliveries in the future (vs. 45% today).

Pro share capture bolstered by delivery investments. We believe HD's Pro share capture is accelerating driven by investments in its B2B website, loyalty card, credit offering, CRM/outbound sales efforts, assortment, and growing delivery options (2/4- hour delivery with van/car deliveries same-day if ordered before noon for \$8.99 in its top 40 markets at over 500 retail locations with car delivery currently available to 50% of the population and van 70%). HD continues to lead in omni-channel capabilities across all companies we follow and its increased effort to control same-day delivery will both reinforce its moat in DIY and drive share capture in Pro overtime (HD believes its sub 10% share in MRO, pre-HDS, and sub 20% share in Pro overall could approach its current 30% share in DIY over time).

Please see our note from HD's 2019 [Analyst Day](#) and our January 2021 [Virtual HQ Visit](#) for further detail on HD's initiatives.

LOW Closing Gap on Retail 101 Fundamentals; Lagging in Same-Day/Next Day

LOW's online sales penetration lags HD's at ~5% in 2019 and ~8% in 2020, but is still above the industry's ~5.4%. LOW continues to invest in its overall e-commerce business by re-platforming the website to Google Cloud and enhancing fulfillment options (updated the BOPIS experience in the store, rolled out curbside pick-up in 1Q20 and lockers shortly after). LOW also went from one e-commerce fulfillment centers in 2019 to two by the end of last year and now five. LOW plans to invest ~\$1.3B-1.5B in its supply chain over the next few years, including opening 50 crossdocks (and the three e-commerce FCs already opened in 2021), continuing to optimize flow with a market-based delivery model (test markets have pulled bulky inventory out and put into smaller DCs closer to the customer) and taking a fresh look at reverse flow (reverse logistics to back-haul product and clear product). The new facilities and market-based model will free up ~10K square feet of space in the backroom of stores for key online-only SKUs that will drive the same/next-day delivery model, as well as improve lead times, reduce shipping costs, and enhance fulfillment capabilities without adding a network of capital-intensive e-commerce FCs.

Investments in Website. LOW began transitioning off its legacy e-commerce site in late 2018 and has completed the re-platforming its website to Google Cloud, which allows for improved search/navigation functions, gives LOW the ability to expand the online assortment (which has already improved to >2M SKUs vs. ~1.3M LY and 450K in 2019), and supports one-click checkout and online delivery scheduling.

Leaning into appliances delivery. LOW is laser focused on taking advantage of its market share capture in the appliance category (14% of sales), despite the margin impact as the company is significantly outpacing the market. Related to delivery, appliances are very complex (e.g., install) and, thus, LOW uses a combination of just Lowe's, Lowe's + 3P, and just 3P across the chain. Going forward, LOW plans to transition to a market-based delivery model that moves appliances and other big/bulky SKUs to regional DCs, similar to HD. Please see our note from LOW's 2020 [Analyst Day](#) for further detail on LOW's turnaround plan.

Having said that, LOW continues to lag in same-day/next-day product availability.

Figure 99: Home Improvement Retailers' Online Capabilities

	Online as % of sales				Online Comp Contribution	BOPIS?	Curbside?	Ship to store?	Ship from store?	Same day delivery?	Fulfillment for online purchases?	Requirement for free shipping?	Promotional free shipping?	Mobile site?	Mobile app?	In-store Inventory Availability on Web?
	2017	2018	2019	2020												
HD	6.7%	7.9%	9.3%	14.3%	3.1%	Yes	Yes	Yes	Yes (most stores)	Yes	5 dedicated FCs; a few more in coming years	\$45	Yes	Yes	Yes	Yes
LOW	4.0%	4.4%	4.7%	7.9%	5.65%	Yes	Yes	Yes	120 stores as of early 2020	No	5 dedicated FCs; no plans for more	\$45	Yes	Yes	Yes	Yes

Source: Company reports and J.P. Morgan estimates.

Figure 100: Home Improvement Online Pricing and Products

	SKUs offered		Private Label %	Expanded Categories Online?	Pricing Different Online?	Price Match to Own Website?	Price Match Other Retailers?	Price Match to Amazon?	Other
	In-store	Online							
HD	~35K	~2MM	20%	Many categories, particularly décor items and seasonal and outdoor assortments	No (generally)	Yes (generally)	Yes	Yes	Investing ~\$1.2B in supply chain over a five-year period to reach ~90% of the U.S. population with same-day/next-day delivery, including big and bulky items.
LOW	~40K	~2.2MM	15%	All categories	No (generally)	Yes (generally)	Yes	Yes	Will open 50 cross-dock facilities, focusing on shifting big/bulky items out of store backrooms to allow for expanded next-day fulfillment and will enable two-day shipping for the majority of the US.

Source: Company reports and J.P. Morgan estimates.

Sporting Goods (DKS, ASO): Big COVID-19 Winning Category

2016 Demonstrates Importance of Product Cycle & Vendor Discipline

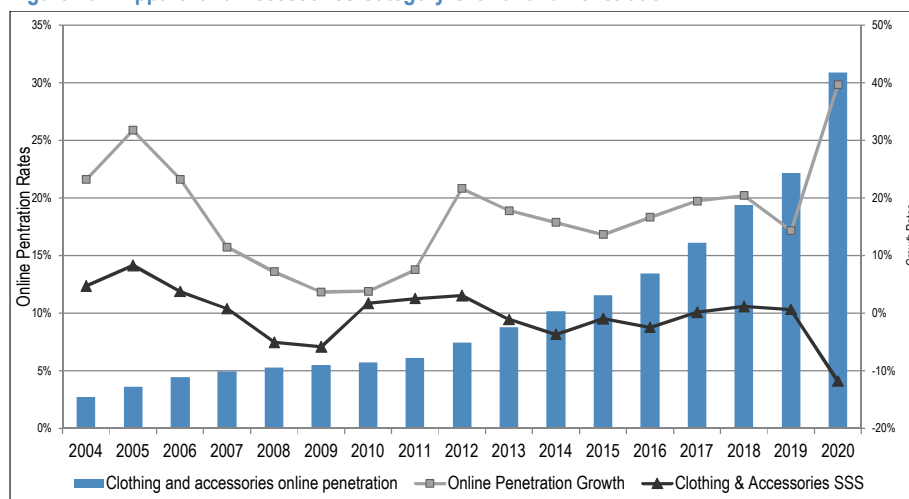
Like our point on electronics, and true for all specialty retailers, category innovation is critical for driving consumer interest and market share. Commoditization is the enemy as this is where mass and the internet encroach. Looking back to 2016 when the product cycle slowed and when Nike over-reached on distribution into the mid-tier department store channel leading to a collapse in industry margins, many blamed this on online encroachment. No doubt, DKS and ASO lagged (and still lag, albeit to a much lesser degree) in online capabilities, but the real issue was the cycle and lack of vendor discipline in managing inventories/channels.

2020: Big COVID-19 Winning Category. More recently, the industry has benefitted from a shift in consumer behavior due to the COVID-19 pandemic as consumers are spending more time outside as well as at and around the home engaging in recreation and leisure activities. This led to inventory constraints in several product categories and a lack of promotions and markdowns (and record merch margins).

Online Penetration Continues to Rise

Online penetration in sporting goods was ~23% in 2020, up from 18% the year prior, with the online penetration growth rate accelerating to 28% after 20% in 2019. Apparel (which includes footwear and combined represents 55% of sales for DKS) had 31% online penetration in 2020 and remains one of the fastest encroaching categories overall, although declining 4.3% in 2020 as the category took a hit from shelter-in-place mandates.

Figure 101: Apparel and Accessories Category Growth and Penetration

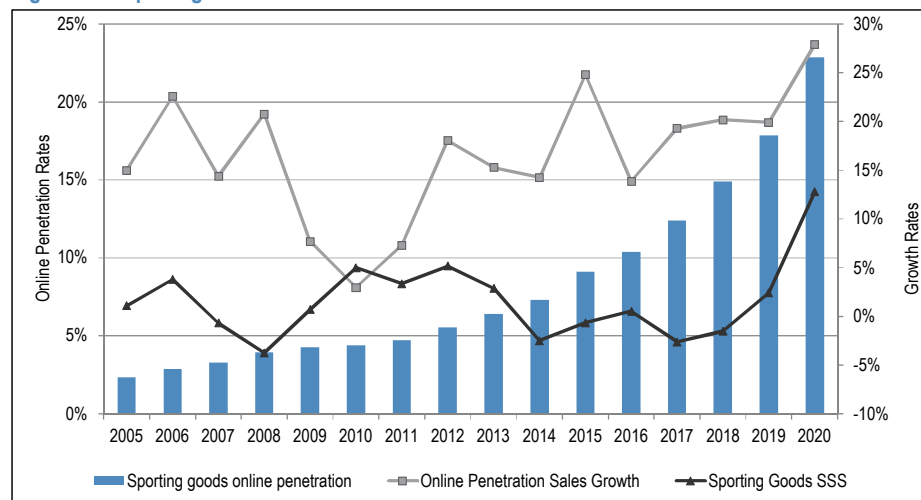


Source: Company reports, comScore data, Census Bureau data, and J.P. Morgan estimates.

Our proprietary calculation suggests the overall sporting goods category (B&M+online) was flattish in 2020 after ~5% growth in 2019. That said, as noted earlier, comScore data seems to lag public company results overall. Average same-

store sales for sporting goods that remained *public* were ~13% in 2020 (including DKS, ASO, HIBB and BGFV) after 3.4% in 2019. The online penetration for DKS was ~32% in 2020 with growth of 114%, while ASO's online penetration was 10.4% in 2020 with online sales growing 137% YOY.

Figure 102: Sporting Goods Online Penetration and SSS



Source: Company reports, comScore data, Census Bureau data, and J.P. Morgan estimates.

Fragmented Market: DKS the last national sporting goods retailer with ASO the leading regional player

Vendors' push on DTC sales, increased product availability, and rapid growth online of apparel (on average, leading all categories from an encroachment perspective since 2014) resulted in both channel shift and bankruptcies as many traditional retailers were ill-prepared for the shift from an omni-channel capabilities perspective. These include Michigan Sporting Goods Distributor, Sports Authority stores, Eastern Mountain Sports stores, Bob's Stores, and Sports Chalet stores, and more recently Modell's. Moreover, the broad shift of power back to brands has allowed vendors to go direct while Nike is also rationalizing its distribution point having reduced the number of undifferentiated wholesale accounts in North American by ~30% over the last 3 years. DKS is the last national full-line sporting goods retailer with ~850 stores while Houston-based ASO is the leading regional player with 259 stores in the southern US. This portends better vendor behavior, but compliance by the likes of NKE, UA, and Adidas is critical to protecting DKS and ASO (*à la Samsung, Sony, HP, etc., for BBY*).

DKS: Omni-Channel Investments Pay Off During COVID-19

DKS has invested heavily in its website and online capabilities, which paid off during 2020 when it was forced to close all its stores at the height of the COVID-19 pandemic. Indeed, DKS's e-commerce business grew >100% in FY20 and represented 30% of sales vs. 16% in FY19. DKS continues to invest in its e-commerce capabilities while working to further improve the profitability of the channel. As you may recall, DKS brought its e-commerce fulfillment in-house in January 2017 after exiting the partnership with GSI (eBay) while over the past five years it rolled out BOPIS, curbside, and ship from store with the online assortment 4x that of stores with a lot of direct from vendor fulfillment. In 2020, ~70% of online orders were fulfilled directly by the stores, which serve as localized points of distribution.

DKS currently operates five regional distribution centers (two of which opened in 3Q19) which along with its delivery partnership with FedEx, helped reduce its estimated delivery date by >10% in 2020. During FY20, its stores received >90% of merchandise through its distribution network while the remaining merchandise was shipped directly to its stores from vendors. DKS continues to be focused on investments that will allow them to further improve the delivery times shown on its website for products. We believe this will improve close rates.

DKS continues to improve the functionality and performance of its e-commerce site, which has included building a faster and more convenient checkout process (albeit it and ASO lag on “clicks to checkout” noted earlier in the report), greater visibility and accuracy of delivery dates, improved page responsiveness, enhancing integration of its ScoreCard loyalty program, new content development through its Pro Tips platform and localized website experiences. Other recent improvements include adding curbside pickup capabilities in 2020, the opening of additional fulfillment centers in New York and California, which along with its delivery partnership with FedEx, helped reduce its estimated delivery date by >10% in 2020.

DKS is targeting parity in margin rates between e-commerce and stores (~90% of orders already ship for free before the shipping threshold) and is finally, in an acknowledgement of the shift online, designing its omni-channel infrastructure for maximum flexibility. DKS saw meaningful improvements to its e-commerce business in 2020 driven by increased curbside/BOPIS penetration as well as less promotions and leverage on higher sales.

As background, in 2011 DKS launched free in-store returns, which have been a benefit to driving traffic. In 2012, DKS piloted “ship from store” and now has every store participating; 75% of all orders are shipped to customers within 15 miles of a Dick’s store. In 2014, DKS rolled out buy-online and pickup in-store with “ship to store” (large cube items such as treadmills). It also launched a Best Price Guarantee in 2017 and has made significant changes to its ScoreCard loyalty program (including ScoreCard Gold in 2019) to make it more rewarding for customers. In 2020, DKS rolled out curbside pickup to the majority of stores during the COVID-19 pandemic.

ASO: Playing to Be a Fast Follower in Omnichannel

ASO’s online sales penetration lags DKS’s at ~10% in 2020 and is below the industry penetration of ~23%. ASO believes ~55% of its business is insulated from other online players given ~20% private label penetration, 11% regulated merchandise (firearms, ammo) that cannot be shipped, 12% Nike (generally not available on Amazon), 7% touch and feel items, and 5% big./bulky items that are expensive to ship. That said, ASO is investing in its e-commerce business by enhancing its fulfillment options and leveraging CRM capabilities. ASO’s e-commerce business grew 400% in 2020 with penetration doubling to 10% vs. 5% in 2019 despite not closing stores.

Enhancing fulfillment options: ASO rolled out BOPIS in 2019 and curbside in 1H20 with ~50% of online orders picked up in store in 2020. Academy also launched ship-to-store capabilities in 2H20 and continues to focus on search and check-out optimization. Ultimately, ASO plans to leverage stores as fulfillment centers with ~75% of orders today fulfilled from stores including 50% BOPIS and 25% ship-from-store. Omnichannel customers spend an average of ~\$400 per year compared to \$250 for store-only customers.

CRM: Over the last two years, Academy has shifted its primary marketing focus from print to digital marketing. Academy utilizes data obtained from its CRM tools to create effective customer-targeting strategies including personalized promotions and product recommendations. Its current CRM programs are focused on welcoming first-time customers, thanking big spenders, reactivating lapsed customers, and cross-selling category customers. With 38MM customers in its database, Academy sees ample opportunity to increase personalized marketing and is also leveraging the information from its ~80MM annual transactions to make more informed, localized decisions on promotions, marketing, and inventory. *35% of ASO's marketing spend was on digital in 2020 vs. its long-term target of 75%.* The company also expects its app to be developed by the end of 2022.

Please see our ASO [initiation](#) from October 2020 for further details on its initiatives.

Figure 103: DKS and ASO's Online Capabilities

Online sales as a % of total sales															
	2018	2019	2020	Online Sales Contribution to Comp?	BOPIS?	Curbside?	Ship to store?	Same day delivery?	Ship from store?	Fulfillment for online purchases?	Requirement for free shipping?	Promotional free shipping?	Mobile site?	Mobile app?	Local inventory availability on app or mobile website?
DKS	14.8%	16.6%	32.4%	19.0%	Yes	Yes	Yes	Yes; pilot in ~300 Stores	Yes	3 dedicated FCs (1 1P, 2 3P)	\$49 and over	Yes	Yes	Yes	Yes
ASO	4.9%	5.3%	10.4%	7.2%	Yes	Yes	Yes	No	Yes	Do not have any dedicated online FCs	\$25 and over (\$15 for Credit Card Holders)	Yes	Yes	No	Yes

Source: Company reports and J.P. Morgan estimates.

Figure 104: DKS and ASO's Online Price and Products

# of SKUs							
	In-store	Online	Private label percentage	Expanded categories online?	Pricing different online?	Price match to own website?	Price match other brick & mortar retailers' online prices?
DKS	ND	ND	15%	Mostly everything	No, generally	Yes, generally	Yes, generally
ASO	ND	ND	20%	Yes, dropship from vendors	No, generally	Yes	Yes, will beat by 5% on the same SKU

Source: Company reports and J.P. Morgan estimates.

Companies Discussed in This Report (all prices in this report as of market close on 10 June 2020)

Alphabet Inc.(GOOGL/\$1464.70/OW), Amazon.com(AMZN/\$2647.45/OW), BJ's(BJ/\$34.20/OW), Bed Bath & Beyond(BBBY/\$8.26/N), Best Buy(BBY/\$81.70/N), Costco Wholesale Corporation(COST/\$307.33/OW), Dick's Sporting Goods(DKS/\$38.02/N), Lowe's Companies, Inc.(LOW/\$130.10/N), Michaels(MIK/\$6.09/OW), Party City(PRTY/\$1.85/N), RH(RH/\$244.54/OW), Target Corporation(TGT/\$120.00/OW), The Container Store(TCS/\$3.45/UW), The Home Depot(HD/\$254.45/OW), Tractor Supply(TSCO/\$121.29/N), Ulta Beauty Inc(ULTA/\$238.41/OW), Walmart Inc(WMT/\$121.16/N), Wayfair(W/\$182.38/UW), Williams-Sonoma, Inc.(WSM/\$84.41/UW)

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