U.S. Online Retail Forecast



You know the future has arrived when life seems to resemble an episode of the Jetsons.

by Christa Hart, Khaled Haram and John Yozzo

Recently announced plans by Amazon.com, Inc. ("Amazon") and Wal-Mart/Google to have airborne dirigibles serve as distribution centers for drones that will deliver merchandise to households sound very much like a contraption from a Jetsons cartoon. Online retailing has become a mainstay in consumers' lives and continues to extend its reach in all sorts of ways, some unimaginable until now.

The conundrum for the retail sector is that regardless of all this innovation, online commerce is essentially a zero-sum game. One merchant's loss of an in-store sale is likely to be a gain for the online channel. Online shopping changes how and where people shop but doesn't much alter consumer spending dollars in the aggregate. Hence the relentless battle going on between clicks and bricks for consumers' mindshare and wallet share.

The prevailing storyline in business media suggests that much of store-based retailing is damaged or doomed. But we know there is no day ahead when Americans will be doing all their shopping online. Store-based retailing will continue to be the dominant form of merchandise shopping for the foreseeable future, even in a diminished capacity, and so we must recognize that online sales growth and market share will eventually moderate. Exactly how and when will this happen? This is where the debate gets lively. We maintain that constraints which govern the limits of natural growth will determine these ceilings in various product categories and that these limits or ceilings can be known and quantified long before they are reached.

Online market share potential varies materially by product category but, on the whole, our forecast

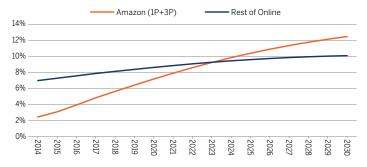
model projects an ultimate ceiling for online sales approaching 25% of U.S. retail sales (excluding auto and gas) — slightly more than double its current market share — in little over a decade from now.

We expect U.S. online retail sales will top \$600 billion by 2020 and surpass \$1 trillion in 2027 compared to \$445 billion in 2017 — representing a compounded annual growth rate ("CAGR") of 12% through 2020 and 9% over the next decade.

However, these sales and market share gains will accrue at different rates for various product categories and online sellers — so there will be distinct winners and losers within the online realm itself, which includes omnichannel.

As we mentioned in our recent report on Amazon, that behemoth will get a growing slice of the online pie. By 2027, just as U.S. online sales hit the \$1 trillion mark, we expect Amazon's total market share (first-party plus third-party, or 1P+3P) of these online sales will be 53% versus 34% in 2016, representing nearly 12% of relevant U.S. retail sales versus 4% currently [Exhibit 1].

EXHIBIT 1
Online Market Share of U.S. Retail Sales



Source: SEC filings, U.S. Census Bureau and FTI estimates



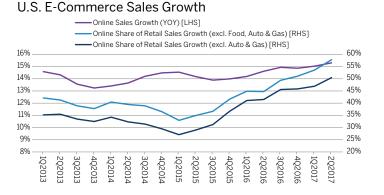
It's not just Amazon, though. Wal-Mart is aggressively scaling up its online business, with a recent Bank of America report estimating its online sales will surge to \$42 billion by 2022 from \$11 billion this year, a 31% CAGR. If this forecast materializes, it would give Wal-Mart a 6% share of U.S. online sales within five years. Such a scenario would spell further trouble for beleaguered retailers. Heck, even Amazon might feel a pinch.

ONLINE SALES GROWTH HAS ACCELERATED SINCE 2015

If years of double-digit annual sales growth weren't impressive enough, online sales growth has accelerated since 2015, moving just above 15% (YOY) from a consistently low-teen rate since 2012 [Exhibit 2]. This may not sound like a meaningful uptick, but the end result is that online is responsible for the lion's share of retail sales growth. The online channel, which now accounts for a 12% share of total retail sales (excluding auto and gas), accounted for 50% of total retail sales growth in the past year — and closer to 60% if the grocery category is also omitted — a notably sharp increase since 2015 [Exhibit 2].

This recent acceleration has not been without consequence and inarguably has been a contributing

EXHIBIT 2



Source: U.S. Census Bureau

factor to the rash of retail bankruptcies and store closures in the last two years, which have occurred amid a non-recessionary environment. There is wide expectation that other vulnerable retailers will be added to the casualty list as online market share of retail sales continues to grind higher.

MOST AMERICANS ARE SHOPPING ONLINE

Some 22 years after it became a viable medium of commerce, online retailing has become a mainstay of shopping for most Americans, with its pattern of adoption being similar to other consumer-oriented technologies.

Nearly 80% of Americans have shopped online, with 43% purchasing weekly or at least a few times a month, according to a December 2016 survey by the Pew Research Center.

Online shopping is popular across all age cohorts, and especially so among younger shoppers. Nearly 90% of Pew's survey respondents in the 18-49 age group have shopped online, as have 72% of respondents ages 50-64 and 59% of those over the age of 64. So, contrary to popular belief, a large percentage of seniors use the internet regularly and are shopping online.

Most Americans are already shopping online. In other words, relatively little of the shopping channel's future growth will come from new people using the internet or from internet users finally becoming online shoppers. We expect that the adoption rate of online shopping will plateau in the vicinity of 90% of U.S. households, which is a ceiling common to other consumer technologies. As a result, we estimate that new users/converts to the channel represent only about 10% upside to current online spending levels.



Future growth in online shopping will come from shoppers using the medium to transact more frequently and across more product categories than they do currently.

How will that happen? There are two ways to increase the frequency of online transacting going forward: reduce the friction of online shopping by making it easier or more convenient to use, and convince online shoppers to purchase across more product categories, such as groceries, health and beauty.

Mobile commerce continues to reduce barriers that inhibit online shopping. While 80% of Americans have shopped online, only 51% have made purchases on their mobile devices, according to Pew. However, there are notable differences among age groups. More than three-quarters (77%) of shoppers under the age of 30 purchase on their cellphones compared to only a third (36%) for those 50-64 years old and just 17% of seniors. Convincing more middle-aged and older Americans to transact on their cellphones presents a sizeable opportunity for the online channel to take more market share. However, many older Americans won't ever be persuaded to shop on their mobile devices due to security concerns and the difficulty of navigating a transaction on a small screen. Over time they will be replaced by shoppers who are more comfortable with mobile commerce. having known it nearly their entire lives.

GROCERY IS THE FINAL FRONTIER FOR ONLINE SHOPPING

The other meaningful opportunity for the online channel lies in expanding market shares in "hard to crack" product categories, such as grocery, health and beauty. Collectively these categories represent more than \$1 trillion of annual sales with very low

online market shares. Most Americans who already shop online prefer in-store purchasing for these laggard product categories. Considerable effort and investment by Amazon and others is intended to break down these barriers by mitigating consumer hang-ups in these categories.

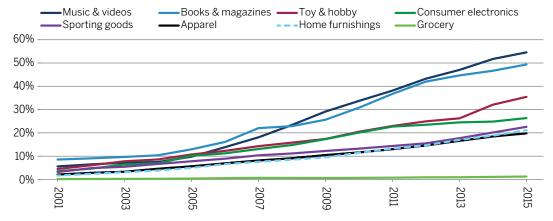
It's no secret that the grocery and home meal solutions category is the current obsession of Amazon and others. It's a \$750 billion category with extremely low online penetration (less than 2%) despite 20 years of collective efforts to crack open the category. Ironically, grocery was one of the first categories for online shopping back in the late nineties. Amazon's recent purchase of Whole Foods Market and its introduction of Amazon Go stores might be a tacit admission of the difficulties in getting meaningful traction with Prime Fresh, its online grocery service in select cities, and an acknowledgment that stores will be a big part of Amazon's grocery strategy.

Amazon views the grocery category differently than its competitors: it's a huge beachhead from which Amazon can infiltrate households in myriad consumer product categories, especially in conjunction with a Prime membership. Despite two decades of industrywide efforts in the grocery category with only limited success in winning over shoppers, Amazon's determination to prevail in the category makes it seem as if we are still in the early innings of this game. Whole Foods' 400+ stores and its reservoir of goodwill with loyal shoppers will be quickly incorporated into Amazon's online grocery strategy, though it's too soon to know exactly how this will unfold.

Wal-Mart, too, has made meaningful inroads with online grocery in the past year and has the added advantage of being the nation's largest food retailer. With several thousand stores that cover most



Estimated Online Market Share by Product Category



Source: U.S. Census Bureau and FTI Consulting, Inc.

suburban and rural reaches of the country, in-store pickup of online grocery orders is a convenience Wal-Mart eventually can extend to customers on a wide scale that smaller chains cannot. Several large supermarket chains are experimenting with curbside or kiosk pickup of orders placed online. If this service proves popular with customers it could propel the category, as it is a time saver for shoppers within short driving distance of a participating store. At the same time, it's a big win for omnichannel grocers, since it averts the high cost of last-mile delivery for these orders. The unique challenges that have confronted online grocery service since its inception, such as last-mile coverage, high shipping costs of bulk items and spoilage of fresh goods, have been largely addressed. However, U.S. consumers still have not embraced online grocery shopping. It may be that they actually enjoy doing their own food shopping and don't trust anonymous workers to pick out their strawberries or chicken breasts. With the acquisition of Whole Foods and its reputation for high-quality fresh products, Amazon hopes to build customer trust that their online purchases of fresh goods and home meals will not disappoint.

Such lofty aspirations for grocery after nearly 20 years of very limited success online butt up against our forecast model, which holds out little chance that grocery can achieve meaningful online market share. In our view, the historically low trajectories of online market shares in difficult categories such as grocery make it unlikely that their ultimate penetration potential can ever be large — we estimate probably no higher than a mid- to high-single-digit range of market share [Exhibit 3]. Nonetheless, these categories are so large that the considerable efforts to move some of those dollars online, even if their market shares remain low, are justified. We'll be watching market shares in these categories for evidence of notable acceleration, as this potentially represents tens of billions of dollars in sales moving online within a few short years.

WE LIKE SHOPPING IN STORES — WE JUST DON'T LOVE IT ANYMORE

Let's dispense with the obvious: We will still be shopping in stores a century from now, just as the Jetsons did; only there will be far fewer of them.

America's decades-long love affair with mall-based



shopping may be more like a fading romance, but we still enjoy it as an occasional excursion. That said, the thrill of the shopping mall experience is gone and shopping itself has become a utilitarian exercise.

While it's true that retail bankruptcies and announced store closings were notably higher in the past year as the industry contends with transformational changes that have been shaking its foundation for several years, the extent and impact of recent failures and closings is more contained than some media stories would suggest. There's no denying that the business outlook for most traditional retailers remains challenging, but the perception among market observers and investors has turned grim in the last year — perhaps a sign of resignation after years of waiting for large retailers to blunt the threat from Amazon and other online shopping sites.

The frustration for many omnichannel retailers is the realization that even those who have done it well are not benefitting from this expensive transformation. Building and integrating a complex and expensive omnichannel enterprise has proved to be the ante required to stay in the game rather than a path to renewed profitability. When you hear about a retailer getting double-digit sales growth and market share from its online channel but its total sales growth is negligible or modest, you can be sure that its stores are suffering.

Though America has been overstored for nearly two decades without much media attention, the growing market share of online retail sales has made this reality manifest of late. The paramount issue that omnichannel retailers must contend with is what happens to store-level economics if online sales double by 2023, as we expect. This means that stores must cope with the prospect of losing the

same amount of sales to the online channel in the next six years that they did in the previous 16 years.

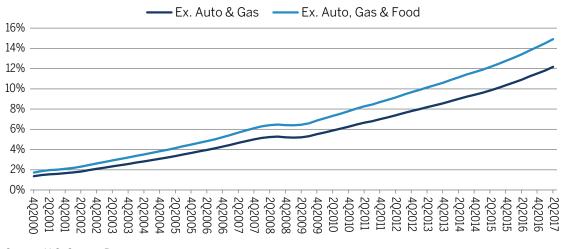
As a result, large, mature chains (outside of discount and grocery) will need to consider aggressive store closings and downsizing — perhaps in the range of 15%-25% of square footage over a five-year period. Chains that have opted for shorter-term leases will have an advantage: they can negotiate better renewal terms or walk away from leases on marginal stores as they expire. Omnichannel retailers will become tougher on marginal stores, since they will retain some sales in zip codes when a store is closed. As a result, landlords in all but premier locales will need to be accommodating to some degree with tenants and be more creative in their use of space.

Another casualty of the online channel's popularity is impulse buying. This is intuitively apparent but there is also hard data that supports the premise. A September 2016 survey by CreditCards.com indicated that a large majority of shoppers engage in some impulse buying, that these purchases often are not trivial in dollar amount, and that this indulgence is done overwhelmingly in stores. The survey showed that 80% of all impulse buying occurred in stores, with the balance conducted on computers (14%) and smartphones (6%). Impulse purchases made online are on the rise as sellers make greater efforts to reduce the barriers that discourage such behavior. Nonetheless, businesses that count on impulse purchases may be doubly pinched by the online migration.

As Yogi Berra might have said, the future ain't what it used to be for stores.



Online Market Share of U.S. Retail Sales (LTM)



Source: U.S. Census Bureau

MORE ABOUT THE MATH: FTI CONSULTING'S U.S. ONLINE RETAIL FORECASTING MODEL

U.S. online retail sales are having another stellar year in 2017, with online sales growth (YOY) through 2Q17 of approximately 15.5%. This extends online sales growth from 2016, which accelerated to 14.9% (YOY) from 14.0% in 2015. Other prominent highlights include:

- Total U.S. online retail sales hit \$420 billion (LTM) in 2Q17 versus \$364 billion a year earlier.
- Currently, online sales have a 12.2% market share of U.S. retail sales of goods [**Exhibit 4**]. Online market share has been increasing by a bit more than 1 percentage point per year for the last three years and we expect it to continue to pick up similar gains through 2020.
- Amazon is capturing an increasing share of U.S.
 online sales growth taking more than 60% of the
 increase in online sales in 2016 per our estimate —
 to the chagrin of omnichannel retailers.
- We estimate that U.S. online sales growth (YOY) excluding Amazon was 8% in 2016, and that Amazon (1P+3P) grew at 32% [Exhibit 5]. Thus,

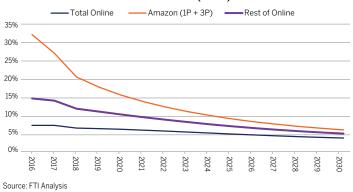
Amazon is gaining online market share at a rapid clip. We estimate that Amazon (1P+3P) claimed 34% of U.S. online sales in 2016 compared to 26% in 2014.

Our online forecast model is a bottom-up logistic growth curve (or S-curve) that best fits our estimates of historical market shares for various product categories since 2000 [**Exhibit 3**]. We utilize a logistic curve because it inherently recognizes that there are limits to natural growth over time. Online market share has a natural limit, so the growth rate it is now experiencing will gradually flatten toward the horizontal plane that is its ceiling.

We estimate that U.S. online sales will reach \$445 billion in 2017, a 14.5% increase over \$390 billion in 2016, and grow to \$615 billion in 2020 and \$1.05 trillion in 2026 [**Exhibit 6**]. This represents a 9% compounded annual rate of growth over the next decade. We expect annual online market share gain will peak at 1.2 percentage points in 2017 and then moderate slightly but remain above 1.0 percentage point per year through 2020.



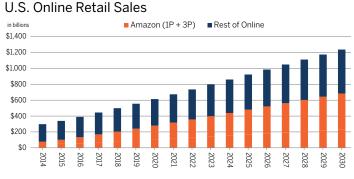
EXHIBIT 5
U.S. Online Retail Sales Growth (YOY)



We note that the re-estimation of our forecast model incorporating 2016 results has caused our forecast curve to shift upward compared to last year's model due to stronger than expected online growth since 2015. Notable changes compared to last year's forecast include:

- The ultimate ceiling for online market share has shifted to 25% of U.S. retail sales (excluding auto and gas) compared to our 20.0% estimate last year. This ceiling represents a doubling of online market share from 12.2% currently [Exhibit 4].
- Our current 2017 online sales forecast of \$445 billion is 2% higher than the \$436 billion that we modeled a year ago.
- Our current 2020 forecast of \$614 billion is 9% higher than the \$562 billion that our model forecast a year ago.
- We expect U.S. online sales will top \$1 trillion in 2027, at which time online market share will be 22%.
- Popular online product categories such as apparel, sporting goods, toy & hobby and home furnishings, which currently enjoy online market shares in the high teens or low twenties, will ultimately plateau at approximately 35% of total

EXHIBIT 6



Source: SEC filings, U.S. Census Bureau and FTI estimates

category sales, per our S-curve model.

 We believe that despite huge efforts to win over online shoppers, grocery will remain a lowpenetration category, with online market share topping out in the mid- to high-single-digit range compared to nearly 2% currently.

As for Amazon, our forecast model has its U.S. gross merchandise volume or GMV (1P+3P) more than doubling by 2020, to \$279 billion from \$133 billion in 2016; in that time, Amazon's online market share will reach 45.4% from 34.2% in 2016, on its way to a 53.5% share in 2027. Conversely, we expect that aggregate online market share excluding Amazon will decrease by 19 percentage points over the next decade. Moreover, Wal-Mart's recent big push into online has already begun to bear fruit and will further pressure other omnichannel retailers to hold their own.

To the victor go the spoils — or at least most of them.

The views expressed herein are those of the authors and not necessarily the views of FTI Consulting, Inc., its management, its subsidiaries, its affiliates, or its other professionals.

Contacts:

J.D. Wichser

Leader, Retail & Consumer Products Practice Senior Managing Director jd.wichser@fticonsulting.com

Christa Hart

Senior Managing Director Retail & Consumer Products Practice christa.hart@fticonsulting.com

Khaled Haram

Senior Managing Director Retail & Consumer Products Practice khaled.haram@fticonsulting.com

John Yozzo

Managing Director Corporate Finance & Restructuring john.yozzo@fticonsulting.com



About FTI Consulting

FTI Consulting, Inc. is a global business advisory firm dedicated to helping organizations protect and enhance enterprise value in an increasingly complex legal, regulatory and economic environment. FTI Consulting professionals, who are located in all major business centres throughout the world, work closely with clients to anticipate, illumi nate and overcome complex business challenges in areas such as investigations, litigation, mergers and acquisitions, regulatory issues, reputation management and restructuring.

EXPERTS WITH IMPACT™