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Global Internet

Raising global eCommerce forecasts on fast growing countries & categories

Equity Research

eCommerce's virtuous cycle continues as store closures push more online

Raising growth estimates on share gains

We are raising our global eCommerce forecasts to reflect the increasing weight of faster growing earlier-stage markets (China, Brazil, India) and categories (Apparel, Grocery) in the mix, as well as the impact of retail store closures (Exhibit 14), better logistics, and new buying models in more mature markets and categories driving continued share gains. **Our estimated CAGR over the next three years goes from 17% to 21%,** compared to 22% over the last three years, as growth rates in large markets like the US, Europe, and China slow gradually as they mature.

Regional snapshots

eCommerce globally grew 21% yoy in 2016 (USD basis) primarily on reacceleration in the US and strength in B2C across China/Japan. We highlight key themes across regions within our report, focusing on region-specific trends like Japan's focus on loyalty and infrastructure, Brazil's slow but steady macro and GMV concentration, in addition to China's runway for adoption in lower-tier cities due to weaker offline options.

Store closures & voice major themes

The growing impact of **retail store closures**, particularly in the US, and the impact of emerging technologies like **AI-driven voice commerce** join more mature themes like mobile commerce, and fulfillment and logistics in being the primary drivers of category growth and competitive positioning in eCommerce share gains globally. Across individual regions, shipping programs, promotional/loyalty activity, and improving international economies play crucial roles in determining the pace of eCommerce adoption.

GS global top picks

Across global coverage we believe the best opportunities in eCommerce span scaled players leveraging network effects and emerging tech to capture share, while we favor traditional retailers best positioned to defend their category and navigate the evolving in-store landscape. Buy: **Amazon***, **Wal-Mart***, **Nike**, **PayPal***, **Ulta***, **CarMax**, **Canada Goose**, **Just Eat***, **Ocado***, **Schibsted**, **Yandex**, **Alibaba***, **JD.com**, **Yahoo Japan**, **GLP J-REIT**, **MonotaRO**, **Netshoes**. ** denotes CL*

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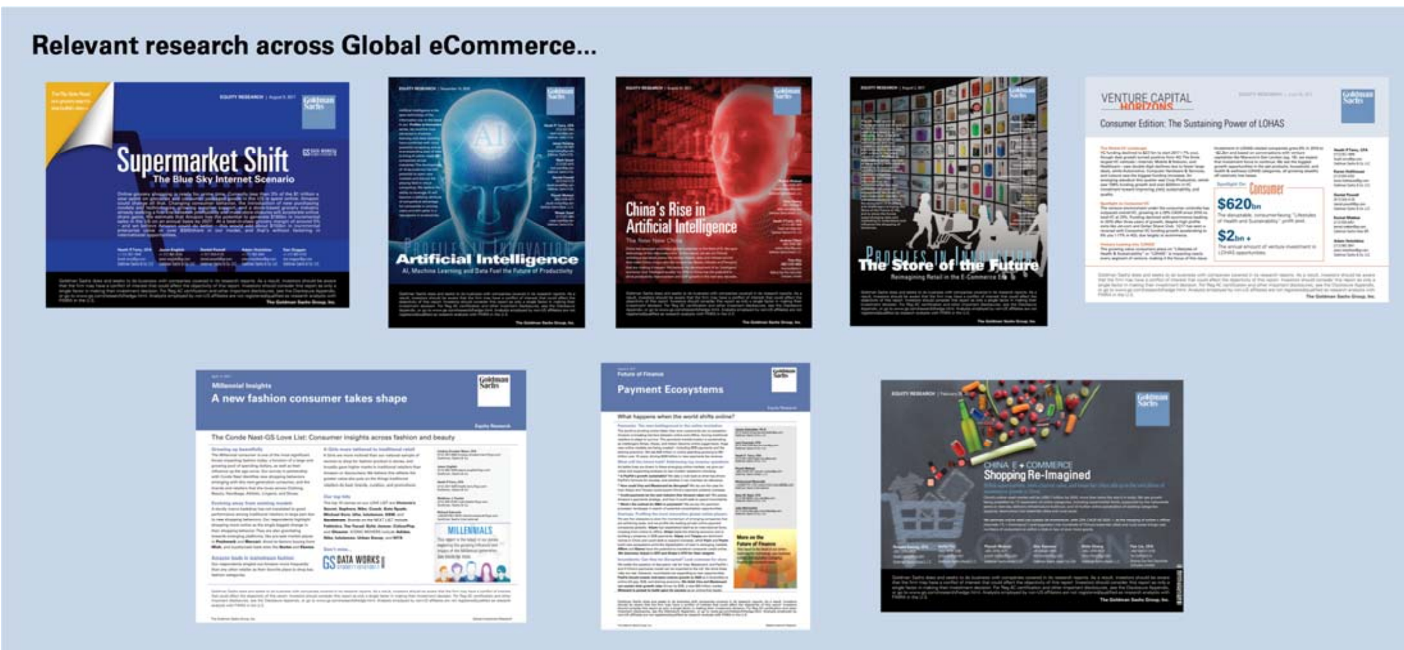
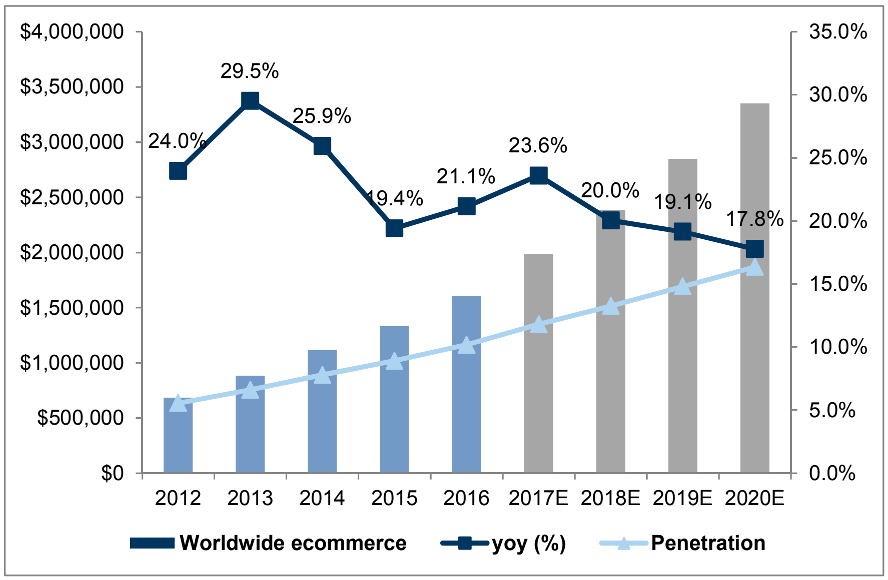


PM summary: Expect eCommerce's virtuous cycle to continue

We forecast a 21% three-year global eCommerce CAGR on strength across China as B2C remains robust, India sees continued rapid growth, and Russia and Brazil reaccelerate. Our new 2017-2020 eCommerce estimates (Exhibit 5) are driven by continued advances across the eCommerce ecosystem (mobile, fulfillment, voice, etc.), particularly within earlier stage online markets, improving the eCommerce value proposition and driving the shift of consumer spending online. We forecast the strongest growth from India (+44%) and China (B2C +36%) while Japan (+10%) and Western Europe (+11%) show more mature growth rates. It's worth acknowledging, that while our best estimates are for relatively linear growth deceleration as markets mature, we're likely to be surprised by periods of acceleration and faster deceleration as individual markets continue to go through both macro, retail sector, and internet-specific inflection points.

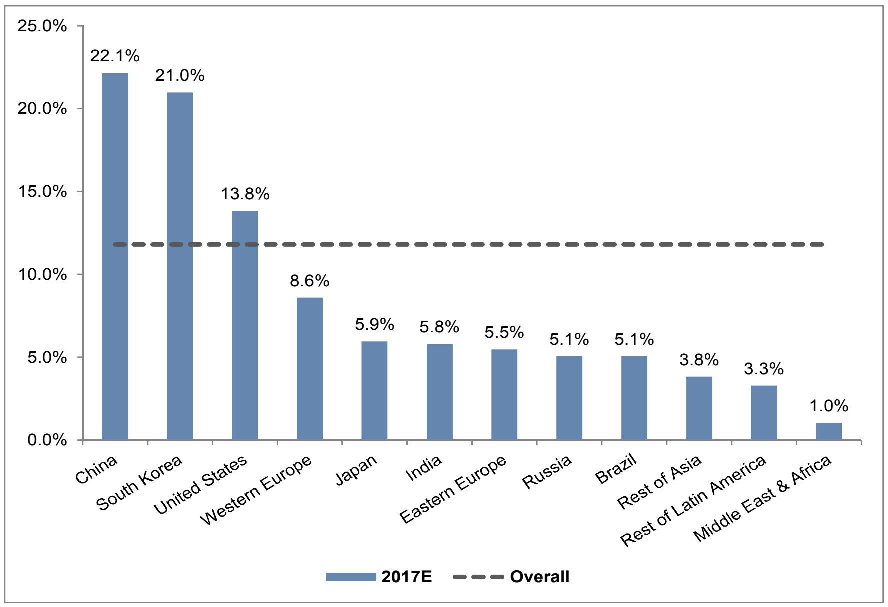
We expect global eCommerce penetration to increase 161bps yoy in 2017. We forecast the largest increases in eCommerce as a percent of total retail across China, South Korea, and India at 345bps, 261bps, and 174bps, respectively. We expect mobile internet access across China and India along with fulfillment improvements across both developing and emerging markets to be continued drivers of penetration. We also see the growing importance of fast growing, earlier stage categories like Apparel and Grocery as being meaningful drivers of online share gains.

Exhibit 1: Global eCommerce growth
$ millions



Source: Company data, US Census Bureau, Euromonitor, IBGE, IPCA, AKIT, Japan METI, iResearch, NBS China, Goldman Sachs Global Investment Research

Exhibit 2: Global eCommerce penetration
Percent



Source: Euromonitor, Goldman Sachs Global Investment Research

Exhibit 3: GS Top eCommerce Picks

TOP PICKS		
Company	**Rating**	**Mkt. Cap ($mn)**
UNITED STATES		
Amazon.com Inc.	**Buy***	**$469,932**
While concerns around AWS pricing/growth and ongoing margin pressures are likely to persist, we believe – given its track record of delivering consistently high returns on invested capital – the ongoing investment in fulfillment and infrastructure will widen Amazon's competitive lead through initiatives such as Fresh, AWS, digital media, and faster fulfillment and product availability, driving incremental growth and, ultimately, profitability.		
Wal-Mart Stores Inc.	**Buy***	**$234,107**
We believe that the company is as well positioned as any mass market retailer – in an admittedly imperfect world for mass market retailers – to cope with increasing demands on ecommerce and technology spend, weather Amazon's growth and its increased focus on consumables, and maintain its franchise. We see merits in WMT's front-loaded investment, scale, capacity for additional investment, small-market focus, and current impressive inventory discipline.		
Nike Inc.	**Buy**	**$87,668**
Nike's business is feeling near-term strains related to collapsing traffic in its brick-and-mortar channels (sporting goods, dept. stores), with spillover impact including inventory liquidations as weak stores close and persistent inventory oversupply in key channels. Longer-term, however, Nike is poised to benefit as consumers shift increasingly to Nike.com where Nike makes a higher dollar profit per shoe and per garment, and also has stronger control of its presentation.		
PayPal Holdings	**Buy***	**$73,900**
We believe TPV growth from the growing ubiquity of the service, incremental engagement from new product offerings, and comprehensive partnerships will drive continued outperformance.		
Ulta Beauty Inc.	**Buy***	**$13,621**
We view ULTA as one of the premier growth stories in retail today, as the firm's loyalty program, capture and deloyment of data, and increasing traction with prestige brands drive strong SSS growth. Moreover, many consumers still seek out a tactile element in their beauty shopping experience, aiding ULTA's standing vs. online-only firms.		
CarMax Inc.	**Buy**	**$12,483**
We believe that KMX is exceptionally well-positioned as an omnichannel retailer. Most other used car retailers do not have a national brand, which is costly to build, while most internet companies lack KMX's product acquisition and reconditioning capabilities. We believe a re-energized online offering is helping KMX to drive share gains, with steady margins, in a difficult space.		
Canada Goose Holdings	**Buy**	**$1,839**
GOOS represents a new breed of brands that avoid excess distribution in brick-and-mortar, limiting its wholesale exposure to best in class partners while pursuing retail by leading through ecommerce and supplementing with flagship stores in marquis cities. In only 3 years GOOS has built retail out to ~30% of its sales, and with inventories in wholesale tightly controlled it has avoided markdown cycles that typically dampen brand equity.		
EUROPE / RUSSIA		
JUST EAT	**Buy***	**$5,987**
JUST EAT is an online takeaway aggregator, operating a marketplace model which benefits from significant network effects and is highly profitable at scale. Being a clear market leader is a necessary condition in order to scale marketing/personnel costs and JE is #1 in all 12 of its markets.		
Ocado Group	**Buy***	**$2,492**
We believe Ocado is the best-placed grocer in our coverage to take advantage of, and drive, the channel shift to online grocery. We expect its cost and capital advantages over traditional store-based grocers to drive widening top-line and operational performance, as well as improving profitability and cash generation. Ocado are also looking to provide an end to end technology solutions to other grocers looking to sell groceries online.		
Schibsted ASA	**Buy**	**$5,586**
We believe Schibsted offers significant long-term value via better monetization of verticals in France. We believe the market prices no acceleration in growth in France and Spain and largely discounts the value of Brazil, Italy and other countries. We believe this is unjustified and that the company's focus on vertical development could lead to positive revenue growth surprises vs. current consensus levels. Verticals development can boost revenue growth significantly.		
Yandex NV	**Buy**	**$10,469**
Yandex is Russia's largest search engine with c.55% share, operates dominant e-hailing company Yandex.Taxi, owns the leading autos brand in Moscow (Auto.ru), and operates Russia's largest e-commerce marketplace Yandex.Market. We expect market share growth across segments in the medium term as well as continued growth of addressable markets. Recently announced JVs will also create substantial synergies, in our view.		
CHINA		
Alibaba Group	**Buy***	**$432,622**
Alibaba is China's largest ecommerce platform, monetizes via an advertising model, is the largest cloud service provider, and is the leading video platform in China. BABA's investments including assets in social media, O2O, retail, logistics and ANT, the world's largest fintech co. BABA has gained a foothold in the underpenetrated ecommerce markets of ASEAN with Lazada, and India with Paytm. GMV and revenue growth have decoupled due to BABA's effective personalization engine, especially after the algorithm change in Sept. 2016 which led to an acceleration in traffic, and higher GMV growth.		
JD.com Inc.	**Buy**	**$50,101**
For China's largest mobile/computers/IT retailer, we forecast further penetration in appliances (low vs. electronics), FMCG & groceries (through omnichannel initiatives with Walmart, Daojia Dada), and apparel (cross-selling from JD Supermarket, investment in Farfetch). We expect 2020 GMV of Rmb1.69tn as JD continues to monetize its direct sales scale advantage.		
JAPAN		
Yahoo Japan	**Buy**	**$25,990**
Yahoo Japan is the largest online media company, largest online auction, and 3rd largest marketplace in Japan. Despite dominance in media, Yahoo Japan struggled in ecommerce until 2015. Since, YJ has waged price competition with incumbent Rakuten by dropping marketplace fees, as well as ramping loyalty points to achieve 42% GMV growth in 2016.		
GLP J-REIT	**Buy**	**$3,034**
Demand exceeding supply on e-commerce growth, and dividend growth driven by new acquisitions.		
MonotaRO	**Buy**	**$3,778**
MRO e-commerce market (EC ratio Japan 9%/US 20-30%) is on the rise. Monotaro is taking share from traditional tool dealers, as account acquisitions grow >10%, and same customer ASP up mid-single digits to >10%.		
LATIN AMERICA		
Netshoes (Cayman) Ltd.	**Buy**	**$358**
With ~60% market share of Brazil's online sporting goods market, we see NETS leadership in a vertical, where supplier relationships matter, as its competitive moat.		

Source: Goldman Sachs Global Investment Research.
*Ratings marked * are on the respective region's Conviction List.*

Updating the GS Global model

We update our global eCommerce model for FX, incorporate regional updates from our global analysts, and update actuals for 2016 and 2017 as available. In addition, we have changed the source of our historical US figures from Euromonitor to the US Census Bureau. This change was made primarily to better align our global eCommerce forecast with the more regularly released government data.

We expect eCommerce share gains to accelerate in the US (penetration +134bps vs. 125bps in 2016) as historically under-penetrated but high frequency offline categories shift online (CPG, Apparel, Sports & Fitness), retail store closures (Exhibit 14) impact consumer behavior, mobile and voice experiences improve, and fulfillment capabilities improve. Internationally, we expect mobile and fulfillment to remain key drivers of eCommerce penetration as large swaths of emerging markets lean on mobile devices for internet access and shorter, simpler fulfillment experiences encourage purchasing behavior to shift.

Exhibit 4: New vs. old estimates
$ millions, fixed 2016 FX rates

Ecommerce growth forecast	2016	2017E	2018E	2019E	2020E	'16-'19 CAGR
Global	$1,608,633	$1,988,229	$2,386,417	$2,843,262	$3,348,380	**20.9%**
New	21.1%	23.6%	20.0%	19.1%	17.8%	
Old	22.5%	20.0%	17.3%	14.5%	12.6%	17.3%
Delta bps	*-134*	*357*	*269*	*464*	*516*	*364*
China	$729,458	$967,445	$1,209,350	$1,491,022	$1,805,694	**26.9%**
New	27.1%	32.6%	25.0%	23.3%	21.1%	
Old	31.0%	26.0%	21.0%	16.0%	13.0%	20.9%
Delta bps	*-394*	*663*	*400*	*729*	*810*	*598*
United States	$389,672	$448,123	$514,445	$589,039	$671,505	**14.8%**
New	14.9%	15.0%	14.8%	14.5%	14.0%	
Old	13.8%	13.7%	13.6%	13.5%	13.3%	13.6%
Delta bps	*106*	*130*	*120*	*100*	*70*	*117*
Western Europe	$230,162	$257,782	$286,138	$317,041	$348,745	**11.3%**
New	12.4%	12.0%	11.0%	10.8%	10.0%	
Old	12.2%	11.5%	10.8%	10.2%	9.2%	10.8%
Delta bps	*17*	*50*	*20*	*60*	*80*	*43*
Japan	$73,602	$80,432	$88,661	$97,912	$107,053	**10.0%**
New	23.1%	9.3%	10.2%	10.4%	9.3%	
Old	13.0%	11.2%	10.7%	10.4%	10.1%	10.8%
Delta bps	*1007*	*-194*	*-45*	*0*	*-79*	*-80*
Latin America	$27,634	$33,845	$40,305	$47,588	$55,810	**19.9%**
New	10.3%	22.5%	19.1%	18.1%	17.3%	
Old	20%	23%	21%	19%	17%	21.2%
Delta bps	*-1012*	*-63*	*-226*	*-100*	*77*	*-130*

Source: Company data, US Census Bureau, Euromonitor, IBGE, IPCA, Japan METI, iResearch, NBS China, Goldman Sachs Global Investment Research.

Global perspectives

In **China**, GS analysts expect there remains significant runway for penetration across lower-tier cities, with the potential to catch-up and even surpass top-tier cities across more mature categories like apparel, footwear, and electronics and appliances (30%-40% online currently) due to weaker offline retail offerings. That said, GS analysts expect fast-moving consumer goods (FMCG) and grocery to represent the largest opportunity given the size of the category and advances in inventory management and fulfillment that remove some of the historical points of friction (e.g., inventory, delivery speed).

Recently, the sequential pick-up in China's online retail sales and parcel volume growth supports positive comments from eCommerce giants on reacceleration and higher conversion rate driven by technology/personalization. For further discussion of the evolving online retail landscape in China see the 2/28/2017 report *China E+Commerce: Shopping Re-Imagined*.

In **Europe,** expectations for an improving macro backdrop (GDP expected to accelerate in 2017) are expected to support continued ecommerce adoption as trends across mobile and a consolidating retail environment propel online growth. With mobile accounting for more than 50% of volume for many key players (75% of JUST EAT's orders (1H17) and >55% FY16 at Ocado), GS analysts expect the continued shift to mobile app ordering to not only support growth but also provide more attractive economics across many aggregators given the reduced friction and stickier customer dynamics mobile apps afford. On the retail side, there has been an elevated level of consolidation activity/proposed consolidation occurring in the UK within grocery/convenience/wholesale. GS analysts see further consolidation as indicative of the highly competitive and challenged UK retail market where discounters (Aldi and Lidl) are still growing strongly amid ecommerce growth.

In **Japan**, companies have utilized substantial promotional activity to help drive growth in gross merchandise value (GMV) though this level of expenditure pressures marginal profits. Since 2014, spending on advertising and sales promotions by Yahoo Japan and Rakuten has increased by more than ¥24bn and ¥37bn, respectively, which for both companies represents 6%-7% of the increase in e-commerce GMV in Japan. Amazon has shown strong growth in everyday items, while sales in this category are lagging at Rakuten and Yahoo Japan, which operate marketplace business models. In the food and drink, general merchandise, and healthcare / supplements categories, growth is much stronger at Amazon than Rakuten, driven by Amazon's ability to leverage its Prime service and access to its own inventory and distribution facilities, GS Japan Internet analyst Masaru Sugiyama describes in *Japan Internet: Competitive landscape in e-commerce in 2016; marketplace models still struggle* (2/28/2017).

In **LatAm** the continued online shift of retail remains a key theme in 2017, with increased focus on fulfillment, particularly in Brazil. Mexico still lags Brazil in terms of eCommerce penetration (2.1% in 2015 vs. 2017E of 3.3%), but potential exists for an acceleration driven by a combination of favorable conditions (i.e., a young population, a relatively high penetration of smartphones and gradually more competitive pricing for data plans) and the impact of Amazon's presence since mid-2015, according to GS LatAm Retail analyst Irma Sgarz. In Brazil, GS analysts believe the end of the eSedex, an express shipping option offered by Brazil's public post office to eCommerce companies at preferential rates, should create opportunities for differentiation through fulfillment solutions in 2017, with more discussion of key themes in the 1/17/2017 report *Outlook 2017: Stuck in the slow lane; 5 themes to watch*.

Exhibit 5: Global eCommerce (ex-travel) forecast

Ecommerce ex-sales tax, $ mn (fixed 2016 FX rates)	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E	CAGR '16-'19	CAGR '15-'20
Regional estimates											
United States	$229,667	$259,957	$297,610	$339,251	$389,672	$448,123	$514,445	$589,039	$671,505	14.8%	14.6%
North America	**$236,489**	**$269,406**	**$309,475**	**$354,198**	**$407,629**	**$469,712**	**$540,229**	**$619,526**	**$707,398**	**15.0%**	**14.8%**
Western Europe	$136,332	$159,783	$181,589	$204,819	$230,162	$257,782	$286,138	$317,041	$348,745	11.3%	11.2%
Eastern Europe	$7,495	$8,980	$10,814	$13,289	$15,908	$19,010	$22,242	$25,756	$29,104	17.4%	17.0%
Russia	$6,046	$8,121	$10,643	$11,345	$13,733	$17,167	$21,287	$25,890	$30,874	23.5%	22.2%
Europe	**$149,872**	**$176,884**	**$203,045**	**$229,452**	**$259,803**	**$293,958**	**$329,666**	**$368,686**	**$408,722**	**12.4%**	**12.2%**
China	$188,425	$308,191	$445,008	$574,113	$729,458	$967,445	$1,209,350	$1,491,022	$1,805,694	26.9%	25.8%
China B2C	*$65,195*	*$124,509*	*$204,447*	*$308,962*	*$419,947*	*$617,840*	*$813,271*	*$1,048,002*	*$1,316,689*	35.6%	33.6%
China C2C	*$123,230*	*$183,682*	*$240,561*	*$265,151*	*$309,511*	*$349,604*	*$396,079*	*$443,021*	*$489,005*	12.7%	13.0%
Japan	$45,995	$55,152	$62,617	$59,806	$73,602	$80,432	$88,661	$97,912	$107,053	10.0%	12.3%
South Korea	$23,435	$26,247	$30,885	$36,738	$44,233	$54,627	$66,099	$79,319	$94,389	21.5%	20.8%
India	$2,327	$3,389	$8,589	$11,355	$21,648	$34,636	$48,491	$64,978	$83,172	44.3%	48.9%
Rest of Asia	$18,763	$22,239	$25,883	$30,313	$35,488	$41,876	$48,995	$56,099	$63,841	16.5%	16.1%
APAC	**$278,945**	**$415,219**	**$572,983**	**$712,325**	**$904,428**	**$1,179,016**	**$1,461,595**	**$1,789,330**	**$2,154,148**	**25.5%**	**24.8%**
Brazil	$7,311	$9,477	$11,926	$13,924	$15,883	$18,686	$22,123	$26,047	$30,480	17.9%	17.0%
Rest of Latin America	$6,464	$8,379	$9,713	$11,121	$11,750	$15,159	$18,182	$21,541	$25,330	22.4%	17.9%
LatAm	**$13,775**	**$17,857**	**$21,639**	**$25,045**	**$27,634**	**$33,845**	**$40,305**	**$47,588**	**$55,810**	**19.9%**	**17.4%**
Middle East & Africa	**$2,665**	**$3,618**	**$4,964**	**$6,937**	**$9,139**	**$11,698**	**$14,622**	**$18,132**	**$22,302**	**25.7%**	**26.3%**
Total	**$681,746**	**$882,983**	**$1,112,107**	**$1,327,956**	**$1,608,633**	**$1,988,229**	**$2,386,417**	**$2,843,262**	**$3,348,380**	**20.9%**	**20.3%**

yoy growth (%)	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Regional estimates									
United States	15.1%	13.2%	14.5%	14.0%	14.9%	15.0%	14.8%	14.5%	14.0%
North America	**15.3%**	**13.9%**	**14.9%**	**14.5%**	**15.1%**	**15.2%**	**15.0%**	**14.7%**	**14.2%**
Western Europe	15.4%	17.2%	13.6%	12.8%	12.4%	12.0%	11.0%	10.8%	10.0%
Eastern Europe	18.8%	19.8%	20.4%	22.9%	19.7%	19.5%	17.0%	15.8%	13.0%
Russia	22.7%	34.3%	31.1%	6.6%	21.1%	25.0%	24.0%	21.6%	19.3%
Europe	**15.9%**	**18.0%**	**14.8%**	**13.0%**	**13.2%**	**13.1%**	**12.1%**	**11.8%**	**10.9%**
China	51.3%	63.6%	44.4%	29.0%	27.1%	32.6%	25.0%	23.3%	21.1%
China B2C	*106.9%*	*91.0%*	*64.2%*	*51.1%*	*35.9%*	*47.1%*	*31.6%*	*28.9%*	*25.6%*
China C2C	*32.5%*	*49.1%*	*31.0%*	*10.2%*	*16.7%*	*13.0%*	*13.3%*	*11.9%*	*10.4%*
Japan	11.3%	19.9%	13.5%	-4.5%	23.1%	9.3%	10.2%	10.4%	9.3%
South Korea	11.5%	12.0%	17.7%	19.0%	20.4%	23.5%	21.0%	20.0%	19.0%
India	40.5%	45.7%	153.4%	32.2%	90.6%	60.0%	40.0%	34.0%	28.0%
Rest of Asia	35.4%	18.5%	16.4%	17.1%	17.1%	18.0%	17.0%	14.5%	13.8%
APAC	**37.8%**	**48.9%**	**38.0%**	**24.3%**	**27.0%**	**30.4%**	**24.0%**	**22.4%**	**20.4%**
Brazil	22.5%	29.6%	25.8%	16.7%	14.1%	17.6%	18.4%	17.7%	17.0%
Rest of Latin America	30.7%	29.6%	15.9%	14.5%	5.7%	29.0%	19.9%	18.5%	17.6%
LatAm	**26.2%**	**29.6%**	**21.2%**	**15.7%**	**10.3%**	**22.5%**	**19.1%**	**18.1%**	**17.3%**
Middle East & Africa	**23.9%**	**35.7%**	**37.2%**	**39.7%**	**31.7%**	**28.0%**	**25.0%**	**24.0%**	**23.0%**
Total	**24.0%**	**29.5%**	**25.9%**	**19.4%**	**21.1%**	**23.6%**	**20.0%**	**19.1%**	**17.8%**

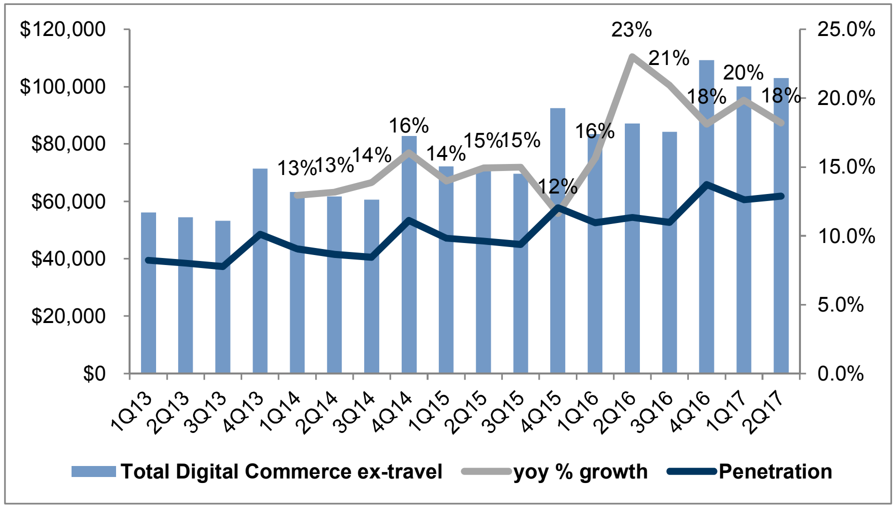
Ecommerce as a % of Total Retail	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Regional estimates									
United States	8.6%	9.4%	10.2%	11.2%	12.5%	13.8%	15.3%	16.9%	18.6%
North America	**8.1%**	**8.9%**	**9.8%**	**10.8%**	**12.0%**	**13.3%**	**14.7%**	**16.3%**	**17.9%**
Western Europe	5.0%	5.8%	6.5%	7.2%	7.9%	8.6%	9.2%	9.9%	10.5%
Eastern Europe	2.7%	3.2%	3.6%	4.2%	4.8%	5.5%	6.1%	6.7%	7.2%
Russia	2.7%	3.4%	4.0%	4.8%	5.4%	5.9%	6.5%	7.2%	7.8%
Europe	**4.7%**	**5.4%**	**6.1%**	**6.6%**	**7.3%**	**8.0%**	**8.6%**	**9.3%**	**9.9%**
China	8.8%	11.1%	14.3%	16.4%	18.7%	22.1%	24.9%	27.7%	30.5%
Japan	3.6%	4.3%	4.4%	4.8%	5.4%	5.9%	6.5%	7.2%	7.8%
South Korea	11.7%	12.8%	14.5%	16.4%	18.4%	21.0%	23.5%	26.1%	28.8%
India	0.7%	0.9%	2.0%	2.4%	4.1%	5.8%	7.3%	8.8%	10.3%
Rest of Asia	2.3%	2.5%	2.8%	3.1%	3.5%	3.8%	4.2%	4.5%	4.8%
APAC	**5.8%**	**7.5%**	**9.4%**	**11.0%**	**12.8%**	**15.4%**	**17.5%**	**19.8%**	**22.1%**
Brazil	2.8%	3.3%	3.6%	4.0%	4.4%	5.1%	5.6%	6.2%	6.7%
Rest of Latin America	1.3%	1.6%	1.9%	2.4%	2.8%	3.3%	3.7%	4.1%	4.5%
LatAm	**1.8%**	**2.2%**	**2.6%**	**3.1%**	**3.5%**	**4.1%**	**4.6%**	**5.0%**	**5.5%**
Middle East & Africa	**0.4%**	**0.5%**	**0.6%**	**0.8%**	**0.9%**	**1.0%**	**1.1%**	**1.3%**	**1.4%**
Total	**5.5%**	**6.6%**	**7.8%**	**8.9%**	**10.2%**	**11.8%**	**13.3%**	**14.8%**	**16.3%**

Source: Company data, US Census Bureau, Euromonitor, IBGE, IPCA, AKIT, Japan METI, iResearch, NBS China, Goldman Sachs Global Investment Research

Recent US eCommerce trends

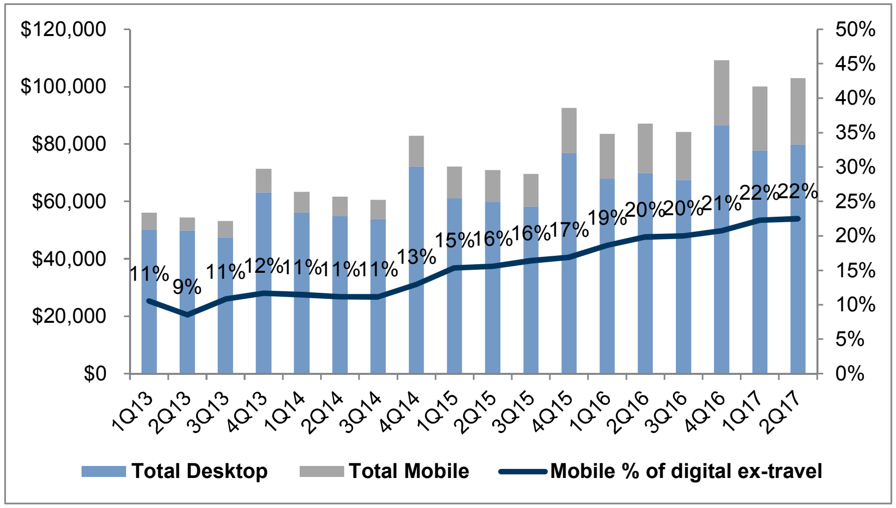
Total US digital commerce ex-travel (desktop, tablet, and mobile) grew +18% yoy in 2Q17 (20% in 1Q), per comScore, reaching $103bn in total spend. As overall retail growth was stable versus 1Q (+2.2% yoy), 2Q served as another marker for eCommerce share gains as the fifth consecutive quarter of penetration increasing more than 150bps yoy. **eCommerce accounted for 13% of total retail in 2Q**, +154bps yoy vs. +166bps in 1Q and +172bps in 2Q16. Mobile continues to see rapid share gains as well. Mobile penetration of total digital eCommerce (ex-travel) reached 22% in 2Q, +266bps yoy vs. +365bps in 1Q and +422bps in 2Q16.

Exhibit 6: Total US digital eCommerce ex-travel +18% yoy in 2Q17
US desktop + mobile, $ millions



Source: comScore, U.S. Census Bureau
Note: Penetration = total digital eCommerce ex-travel as a percent of total retail (ex-food, ex-auto, ex-gas)

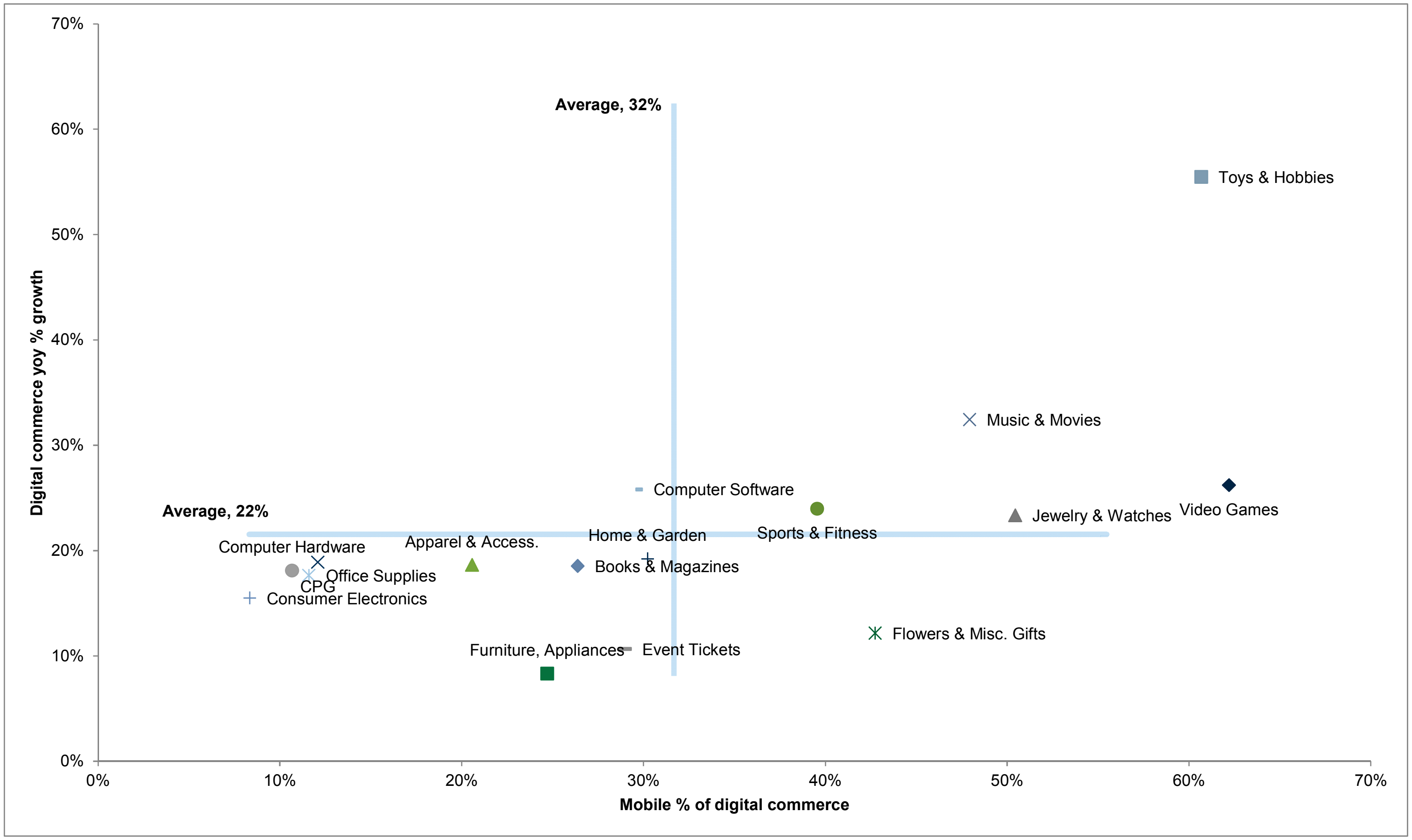
Exhibit 7: US mcommerce penetration reached 22% in 2Q17
US mobile commerce % of total digital commerce ex-travel, $ millions



Source: comScore

As mobile continues to gain share of digital commerce, it's not surprising that 5 out of 6 categories seeing above average growth in digital commerce fall above the average for mobile penetration. Categories like **Toys & Hobbies** which skews toward the high end for mobile penetration saw growth accelerate in 2Q (+55% yoy vs. 40% in 1Q), particularly in mobile where TTM penetration of total digital commerce has nearly tripled in the past 3 years. Toy manufacturer **Hasbro noted on its 2Q earnings call that, "overall online POS was very strong in the quarter**, stronger than our overall POS and up more than 20%. We continue to see great growth in online and omni-channel not just from **Amazon**, but **Walmart**, **Target** and **Toys-R-Us** as well, very strong growth for several of those retailers. It's for us an opportunity to bring together content, commerce and innovation online and it's working quite well..."

Exhibit 8: US digital commerce growth vs. mobile penetration in 2Q
yoy growth



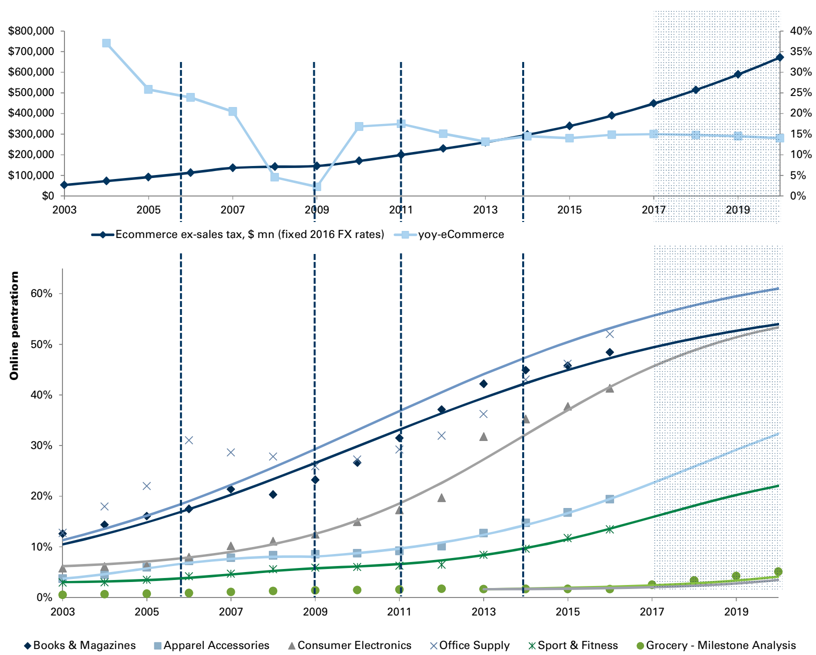
Source: comScore

Analysis of past and future category growth

We performed a historic logistic curve (s-curve) analysis on key countries and categories to better understand future trends. For the analysis we used one or two overlaid s-curves to fit the historical / future data. The s-curve represents the designated online transition of said category, moving from the earlier, slow growth stage, through rapid growth, the inflection point, and maturity. Historical and future transitions may need multiple s-curves, representing different generations/populations or tech advancements.

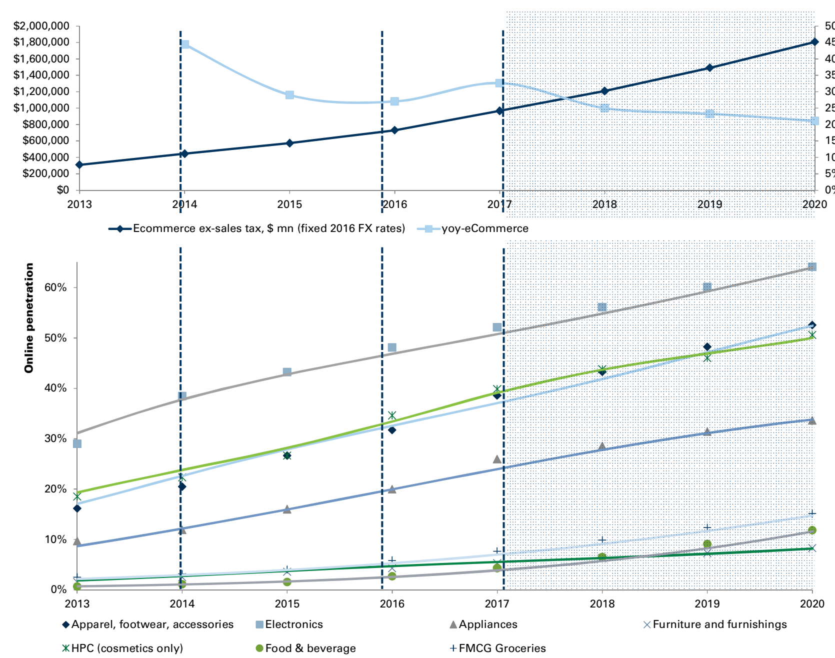
For both the US and China we expect natural deceleration as some of the largest retail categories have reached substantial online penetration and many of the remaining categories have already passed an initial inflection point. We believe that in both markets **online grocery is still very much underrepresented** and likely to be the next large category to move online. If that happens it could reaccelerate yoy overall eCommerce growth in both markets. For Brazil we continue to see significant upside in online growth, with categories such as "Apparel & Fashion" and "Sportswear" approaching levels meaningful enough to reaccelerate the overall growth. Japan's eCommerce market has comparatively seen a slower online transition than other large markets. We see potential in both the "Apparel" and "Consumer Electronics" categories given the historical precedent of adoption in other developed markets, though **many categories seem primed for an inflection** in online penetration.

Exhibit 9: US s-curve analysis
$US mn, online penetration in respective category with overlaid s-curves, and highlighted select inflection points.



Source: comScore, Haver Analytics, U.S. Dept. of Commerce, Goldman Sachs Global Investment Research

Exhibit 10: China s-curve analysis
$US mn (fixed 2016 FX rates), online penetration in respective category with overlaid s-curves, and highlighted select inflection points.

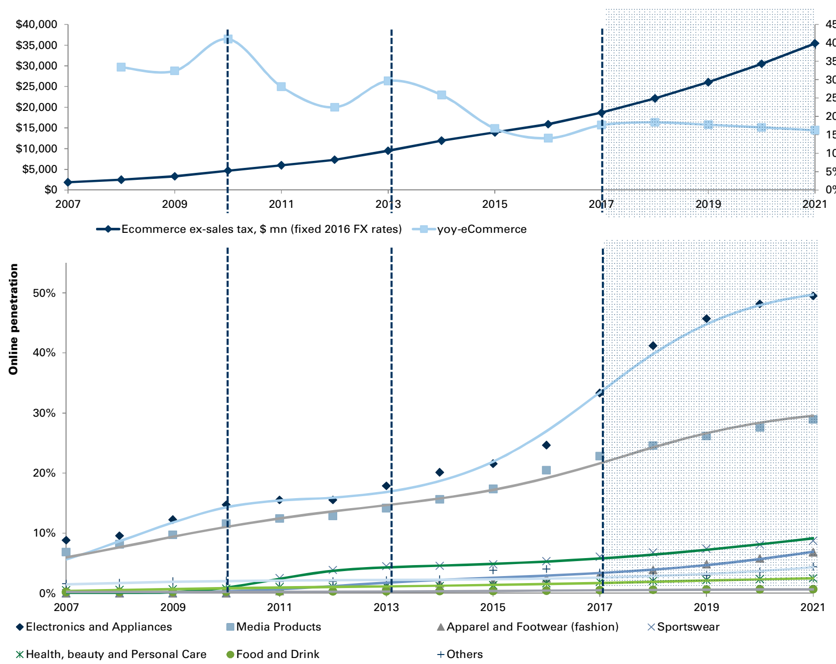


Source: National Bureau of Statistics (China), Goldman Sachs Global Investment Research.
** Numbers are adjusted for returns, does not include services*

USA. The US was one of the earliest markets to see traction in eCommerce, particularly in books, office supplies, and consumer electronics, with a recent plateauing in growth across these more mature categories. In addition, there was also an early transition to online sales in apparel and sports & fitness, which similarly started to see relatively benign levels of growth. In more recent years, however, we saw many of these categories reaccelerate as supply and demand built to a critical mass. Based on our analysis we expect yoy eCommerce growth to be relatively flat near-term, with a slight deceleration somewhat offset by a rise in **online grocery** sales beyond 2019 (see Supermarket shift: The Blue Sky Internet Scenario, 8/9/17).

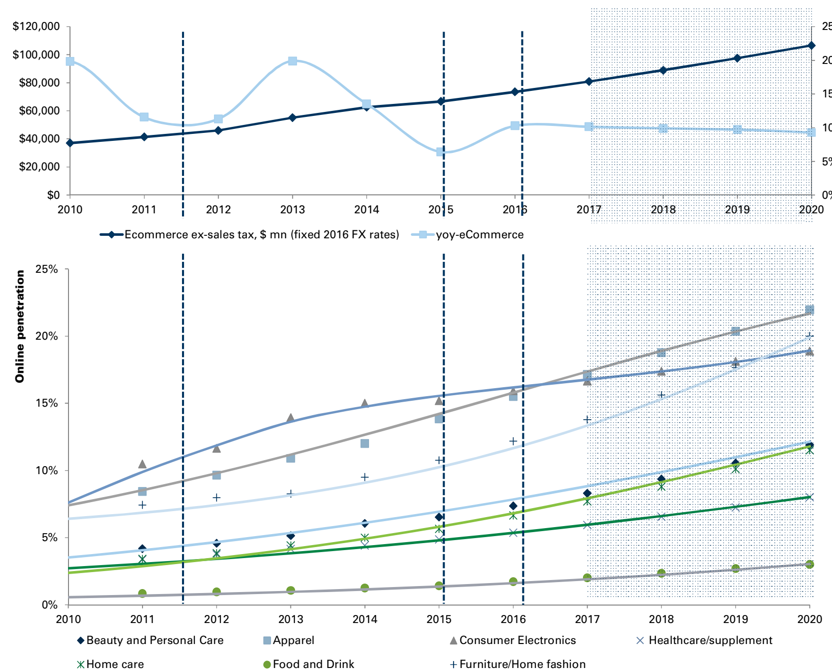
China. China has seen one of the largest proliferations of eCommerce across retail categories compared to the rest of the world. The categories that have historically seen large online penetration require modeling with two s-curves that overlay very closely, due to the accelerated online penetration of the already existing C2C platform, and closely followed by B2C platforms that have grown quickly. Forecasting through the next 3 years, we predict a modest deceleration in yoy eCommerce growth, largely due to the maturity of the sizeable eCommerce categories, with potential for reacceleration past 2020 driven by the rise of **online grocery and other O2O categories**.

Exhibit 11: Brazil s-curve analysis
$US mn (fixed 2016 FX rates), online penetration in respective category with overlaid s-curves, and highlighted select inflection points.



Source: Euromonitor, Goldman Sachs Global Investment Research.

Exhibit 12: Japan s-curve analysis
$US mn (fixed 2016 FX rates), online penetration in respective category with overlaid s-curves, and highlighted select inflection points.



Source: Euromonitor, METI, Goldman Sachs Global Investment Research.

Brazil. Brazil is expected to see eCommerce growth reaccelerate after ~ 4 consecutive years of deceleration driven by macro softness. We expect the reacceleration to be driven by increased online penetration in **Electronics & Appliances** and **Media** products. We believe these two categories will continue to drive growth through 2020, with a potential increase in online sales coming from **Apparel & Fashion** which has seen modest penetration growth in recent years. Based on our logic curve analysis we believe that we have entered into a second lower asymptote of a larger population and could see a reacceleration in this category as well as Sportswear post-2020.

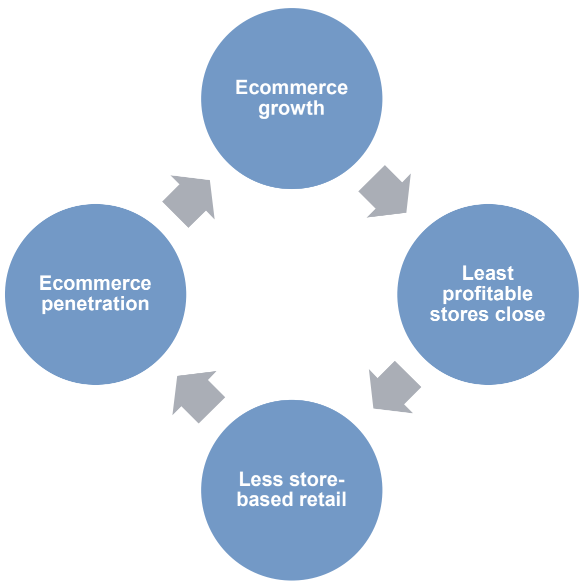
Japan. Japan has historically seen steady growth in online penetration driven by **Apparel** and **Consumer Electronics**, but after meaningful yoy growth in 2013, overall eCommerce has seen an almost uninterrupted deceleration in yoy growth. Forecasting through the next 3 years, we expect relatively stable eCommerce growth of 9-10% annually. Contrary to other markets discussed, we believe that this is not due to relative maturity in major categories, but related to the historically slower transition across the board from traditional retail to online and logistics strain. In our model, the transition is slower than in any of the other markets we analyzed. As such we predict that yoy will remain fairly steady, but if there was an inflection in the market (a second s-curve), the online transition could see a significant reacceleration given the size of its economy.

Key themes

The virtuous eCommerce cycle

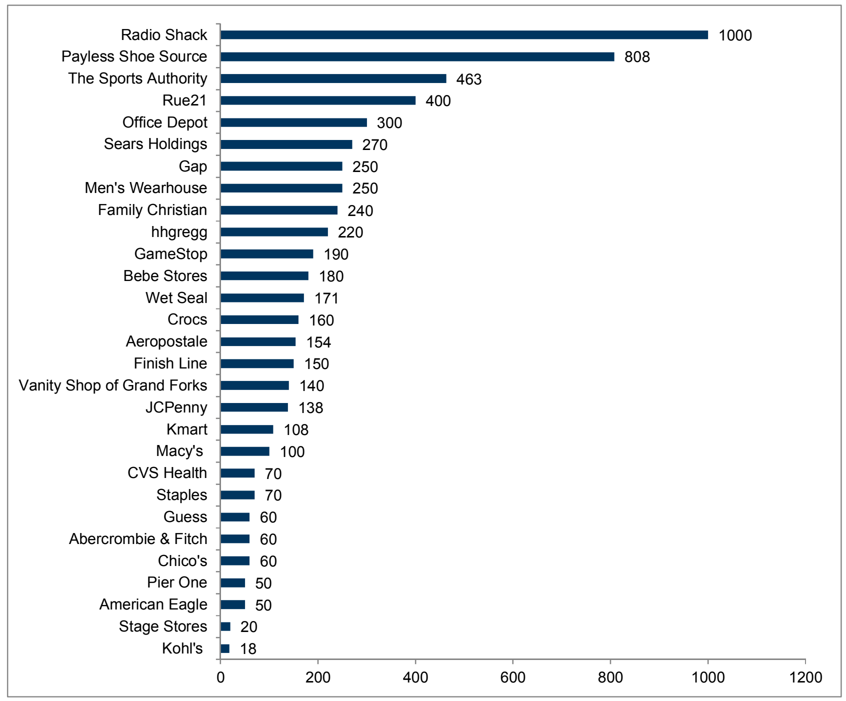
Retailers and brands continue to face challenges from in-store traffic concerns and deflationary eCommerce pressures. Store closures continue for major retailers (Macy's, Sears, Staples, etc.) and brands (The Limited) as company's look to navigate the shift to online from a position of relative under-investment amid ever-increasing price transparency and consumer expectations. In 2017 alone, more than a dozen retailers have announced bankruptcies while approximately 20 have announced individual store closure plans of at least 100 locations.

Exhibit 13: ECommerce drives store closures, which drives eCommerce...



Source: Goldman Sachs Global Investment Research.

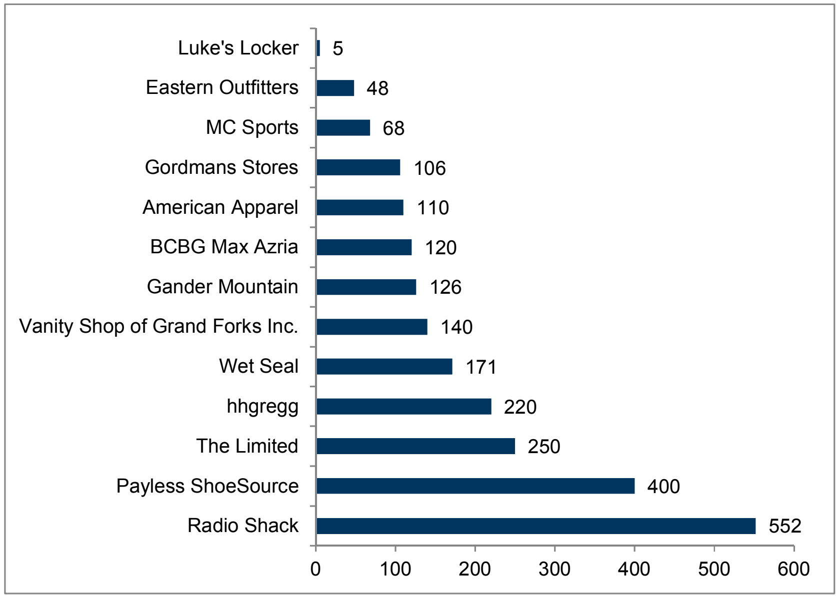
Exhibit 14: Announced store closures - 2017
Not an exhaustive list



Source: Company data.

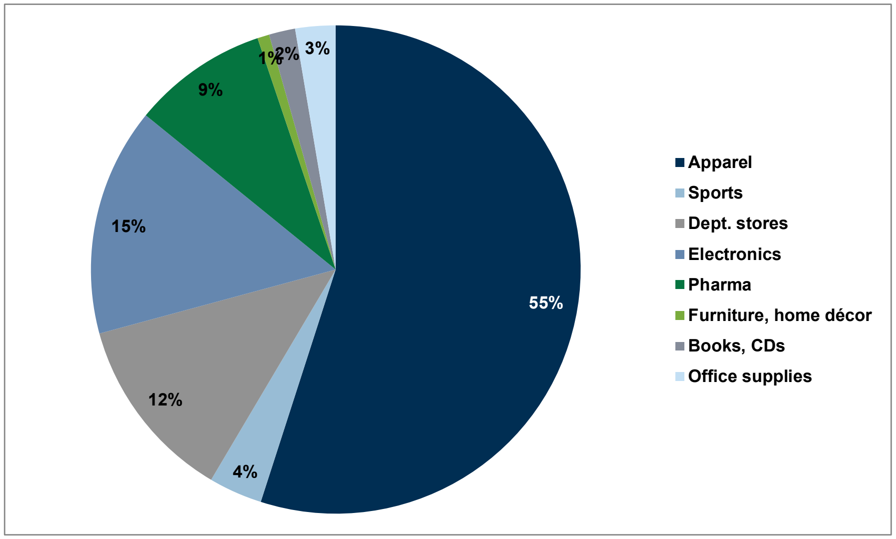
Retail sales as a percentage of GDP for the US have been relatively stable since 2008 at nearly 6%. As the share of eCommerce has increased steadily, it has eroded both store traffic and sales at brick-and-mortar stores gradually. Since total retail sales as a percentage of GDP is relatively fixed, eCommerce almost entirely impacts brick-and-mortar sales. As a result, retailers have looked to reduce operating expenses and increase efficiency as revenue is pressured (both price and volume), and thus, shut down stores that are least profitable and/or unprofitable. The impact of this step is that overall store-based retail declines. In addition, many brick-and-mortar retailers have also initiated eCommerce efforts in order to sustain or grow revenue. Ultimately, these store closures fuel additional eCommerce share gains, feeding the flywheel of eCommerce adoption and further pressuring traditional brick-and-mortar retail.

Exhibit 15: Bankruptcies - 2017
Store closures due to bankruptcy



Source: Company data.
Not an exhaustive list.

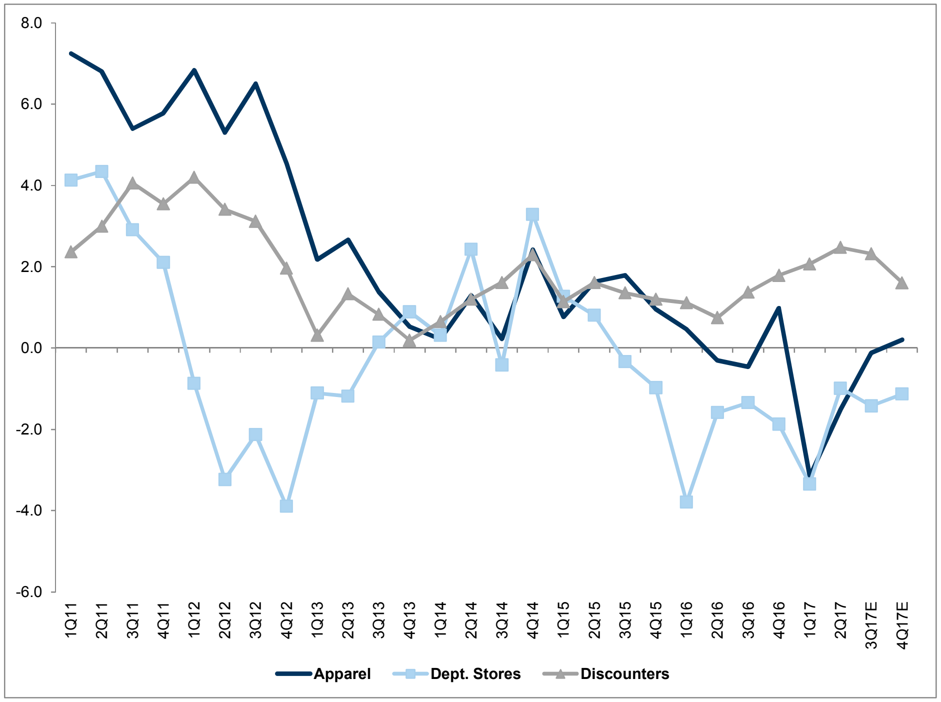
Exhibit 16: Announced closures by category
Apparel and electronics most impacted



Source: Company data.

In 2017 alone, more than a dozen retailers have announced bankruptcies while approximately 20 have announced individual store closure plans of at least 100 locations. While the pace of store closures has been well documented the US remains situated well above other significant economies in terms of retail square foot per capita. Combined with SSS trends across department stores, apparel retailers, and discounters, the data would suggest that further closings and footprint reductions are likely, particularly for retailers/brands over-exposed to malls where eCommerce pressures on foot traffic are likely to persist.

Exhibit 17: Retailers SSS growth
yoy % change

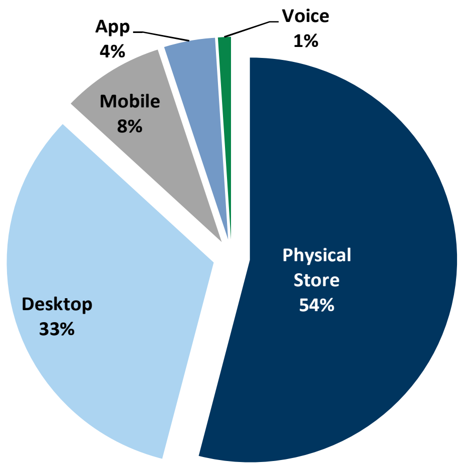


Source: Company data, Goldman Sachs Global Investment Research.

V-commerce

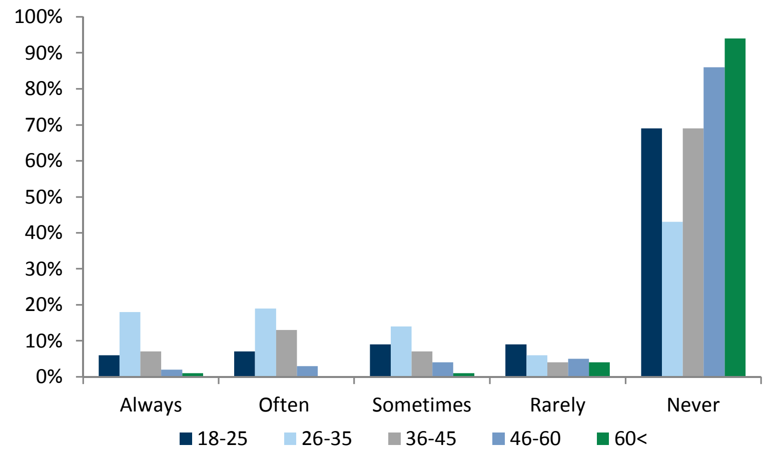
Voice activated technology is an increasingly important factor in consumer behavior online, as it allows for faster, more convenient, access to information compared to traditional channels in many circumstances. Amazon's position as one of the leaders in this development with the Alexa platform makes it particularly relevant for the growth of eCommerce. This growth is partially driven by the continuing improvement in speech recognition, and both Microsoft and Google have now declared speech error rates of only ~5% -- on par with humans. In fact, **51% of China's and 57% of Japan's regular voice users use voice precisely because it means they don't have to type**, according to a survey by Digital Market Asia. Furthermore, 10% of all search traffic is now voice searches, up from negligible in 2014, and Kantar estimates nearly 1.8 billion consumers will be using AI voice assistants by 2021. Based on current global voice usage we believe that initially the biggest impact from Voice will come in the global search market, projected to reach $150bn by 2020 (see The 'Outsiders' - Emerging Ecosystems – 7/12/2017 for more).

Exhibit 18: US Purchasing habits



Source: Walker Sands Communications

Exhibit 19: US Purchasing habits
Online shopping conducted using voice controlled devices



Source: Walker Sands Communications

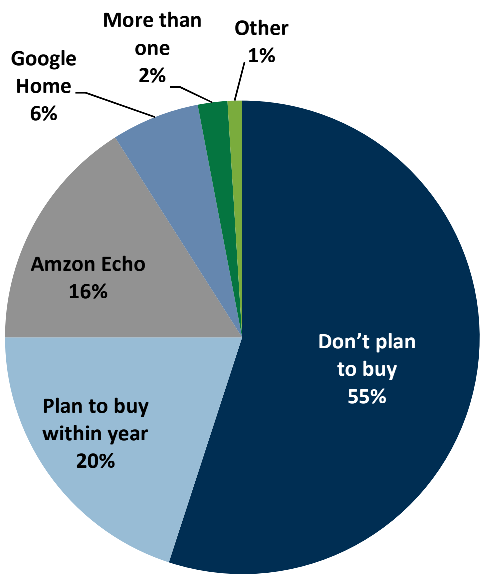
Comparing the current usage levels, the benefits of voice purchasing, and the current growth of mobile purchasing we believe that **voice purchases could reach 5% of all online sales in the next 3-5 years**. We see eCommerce as the logical next beneficiary of voice-enabled assistants, through a combination of growth in voice-enabled speakers and mobile voice assistants. On mobile platforms there are a number of voice assistants: Assistant (Google), Siri (Apple), Cortana (Microsoft), Duer (Baidu), and Bixby (Samsung). The current, and soon to arrive, platforms in voice speakers are; Google Home, Amazon Echo (Dot, Show and Look), Cortana (Invoke), Tmall Genie (Alibaba) and HomePod (Siri). According to NPD**, Amazon Echo owners spent around 10% more on Amazon after purchasing the Echo than prior**. We believe that voice purchasing will make it easier to create lists, replenish frequently used items, and order new items as needed without interrupting higher value activities. It can also improve the on-screen / mobile purchasing experience by enhancing the interaction.

Usage and expectations for voice assistants are increasing globally:

- **31% of consumers globally use voice assistants** on a weekly basis (*eMarketer 7/29/17*) vs. 49% in the US.
- In Japan 63% of voice technology is used for search vs. 55% for finding information on products (*Digital Market Asia - 6/29/17*).
- **32% of smartphone users** are excited about a future where their voice assistant will anticipate and take actions to resolve their needs, according to a survey from JWT Intelligence.
- Samsung and Gartner are predicting that the AI speaker market will grow 6x from US$360 mn (2015) to **US $2.1bn in 2020.**

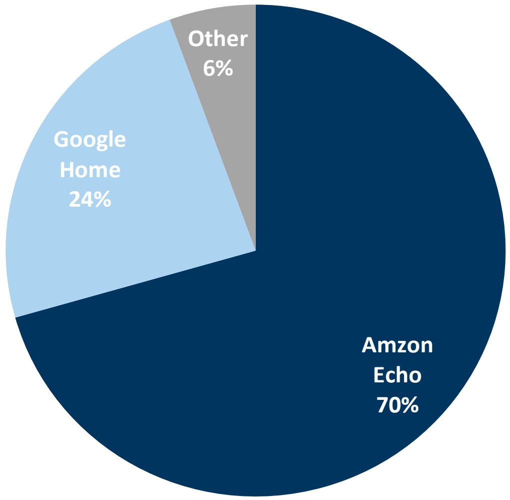
What's next in voice assistant functionality? Beyond mobile and voice speakers we are also seeing an increase in manufacturers looking to integrate voice assistant capabilities into appliances, toys, vehicles and other consumer products. Amazon for example now offers Alexa development kits that can easily be integrated with device manufacturers' products, and home appliances are coming with voice speakers pre-installed. Recently, Google and Wal-Mart partnered to begin offering Wal-Mart's products via Google Assistant.

Exhibit 20: US Home assistants current and future usage



Source: Walker Sands Communications

Exhibit 21: US voice enabled speakers by company share
As of 4/2017



Source: eMarketer

VENTURE CAPITAL HORIZONS

Our Venture Capital Horizons series tracks global venture funding trends. To find our latest report—a spotlight on Consumer and the LOHAS opportunity—visit our page.

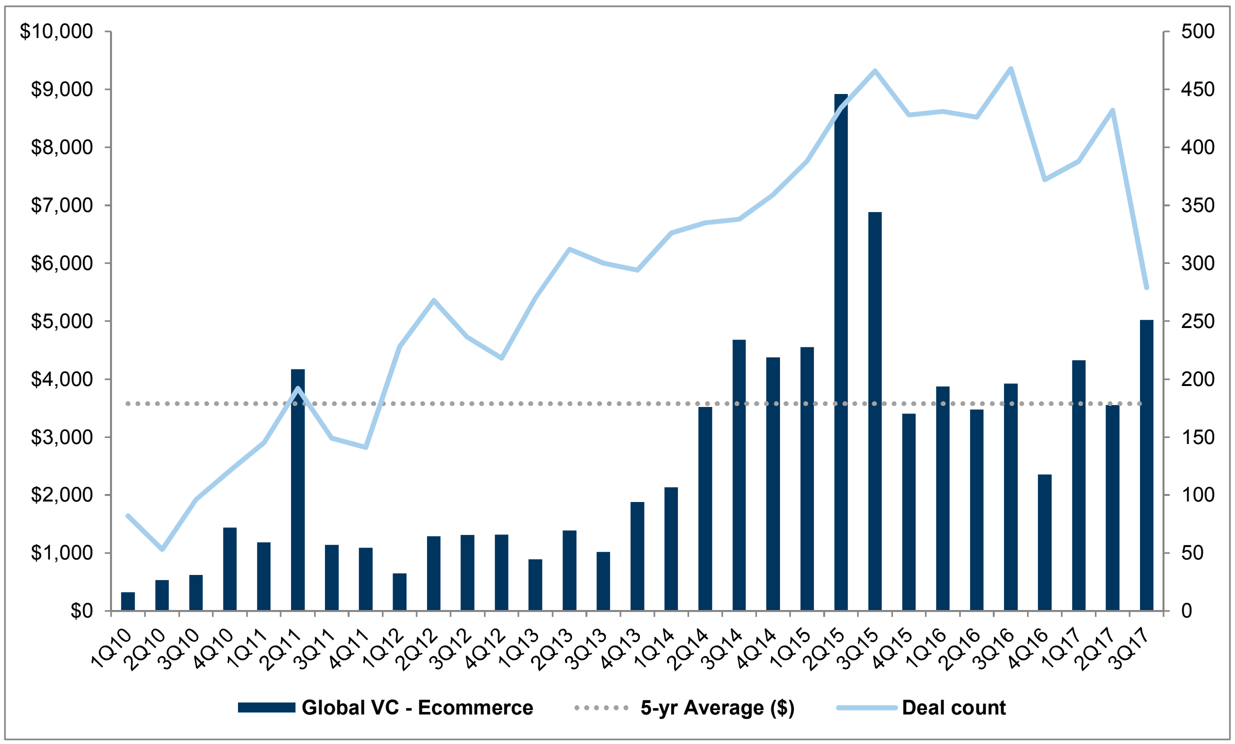
VCH: Venture Capital insights

Globally VC funding in eCommerce remains at or above its trailing 5-yr average in recent quarters though deal count has trended lower following the 2015 peak. Year-to-date we've seen increased VC investment following the decline/tightening from 2016, driven in part by M&A activity in the category, in our view, as Chewy.com and Bonobos were acquired by larger, traditionally brick-and-mortar retailers in addition to Jet.com and Dollar Shave Club over the LTM.

Overall, VC funding within eCommerce is +26% YTD, driven primarily by international companies as eCommerce companies in the US are on pace to see VC investment fall below its trailing 5-year average for 4 out of the last 7 quarters. In 3Q17 alone both Flipkart (India) and Tokopedia (Indonesia) each closed $1bn+ rounds, the first rounds of that size since 2015 across all private eCommerce companies. As Amazon continues to broaden its reach across retail categories and deepens its share of wallet we would expect to see continued pressure on VC funding to private companies seen both directly and indirectly competing with it, to Amazon's benefit, particularly in the US. That said, we would expect to see continued investment internationally as disruptive models find traction in markets with less equipped/established incumbents and the opportunity to offer more local/regional services. This could pose challenges for international competitors looking to gain traction in faster growing geographies (e.g., Amazon in India).

Exhibit 22: VC funding across eCommerce more concentrated today

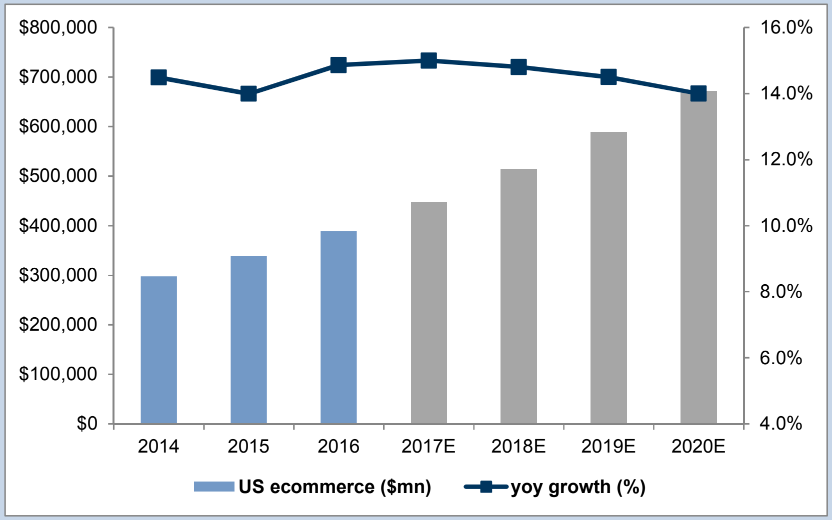
Flipkart (India) and Tokopedia (Indonesia) each closed $1bn+ rounds in 3Q; $ millions



Source: CB Insights

Regional Snapshots

UNITED STATES



Source: US Census Bureau, Goldman Sachs Global Investment Research

TOP PICKS

Amazon (AMZN). While concerns around Amazon Web Services (AWS) pricing and ongoing margin pressures are likely to persist, we believe – given its track record of delivering consistently high returns on invested capital – the ongoing investment in fulfillment and infrastructure will widen Amazon's competitive lead through initiatives such as Fresh, AWS, digital media, and faster fulfillment and product availability, driving incremental growth and, ultimately, profitability. Our $1,275 price target (12-mo) for AMZN (CL-Buy) is based on SOTP, implying 27x 2018E EV/EBITDA. Key risks: (-) Competition, margin pressures from investment, and valuation.

PayPal (PYPL). We believe TPV growth from the growing ubiquity of PayPal, incremental engagement from new product offerings like One Touch, increasing friction in traditional payment systems, and strategic partnerships should drive continued outperformance. Our $72 (12-mo) price target is based on an 85%/15% blend of 20X 2018E EV/EBITDA and 24X 2018E EV/EBITDA M&A valuation. Key risks: (-) Competition, transaction/operating margin pressure, security threats

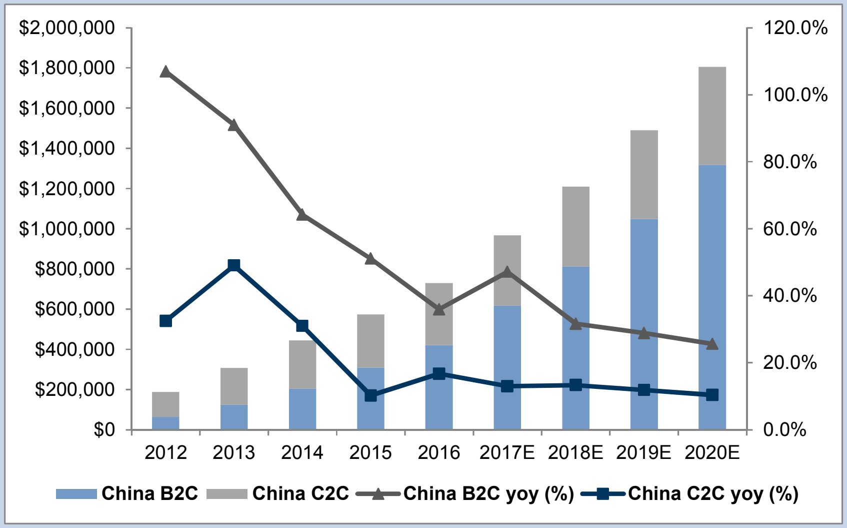
KEY THEMES

- **Mobile.** Categories most exposed to mobile commerce are seeing outsized growth in total digital commerce in the US as both hardware, software, and mobile user experiences have improved. As mcommerce share of total digital ecommerce has steadily moved north of 20% in the US in recent quarters, traditionally insulated categories like Home & Garden, Furniture & Appliance, and Flowers & Gifts have all seen mobile share of digital spend roughly double over the course of the last two years. We expect mobile share of digital commerce to increase unabated and potentially accelerate as consumer behavior, individual company capabilities, and the aging of mobile-first generations drive an inflection.

- **VC funding.** Following the peak in ecommerce deal count and funding dollars seen in 2014 and 2015, respectively, ecommerce funding in the US has come in below its trailing 5-yr average 3 out of the last 6 quarters and looks to be on pace to fall below the average again in 3Q17, according to CB Insights data. In our view this has been driven in part by a general tightening across the VC environment as investors that had piled in in search of growth (many traditionally public) started to place greater scrutiny on profitability and cash burn, but also by the strength of incumbents like Amazon specifically within ecommerce. We would expect that the scale advantages of larger incumbents (i.e., Amazon, eBay) to continue to pressure VC funding for ecommerce startups as well as other closely competitive verticals. Ultimately, we would expect this to benefit the share of wallet accruing to scaled players and support Amazon's continued capture of the majority of ecommerce growth.

- **Retail store closures.** With the pace of store closures seen over the course of the TTM, with more than a dozen retailer bankruptcies announced in 2017 alone, we expect the virtuous ecommerce cycle to continue pressuring store traffic, driving fulfillment investment from brick-and-mortar, weighing on pricing, and ultimately growing ecommerce penetration. While SSS estimates across GS covered apparel companies are expected to improve through year-end, SSS comps are expected to remain negative across department stores and soften across discounters broadly (in part due to tougher yoy compares) which we would expect to continue to fuel conversations around footprint reductions, store closures, and ecommerce/technology spend among retail management teams.

CHINA



Sources: Company data, NBS, iResearch, Analysys, Goldman Sachs Global Investment Research

TOP PICKS

Alibaba (BABA). Alibaba is China's largest ecommerce platform, monetizes via an advertising model, is the largest cloud service provider, and is the leading video platform in China. BABA's investments including assets in social media, O2O, retail, logistics and ANT, the world's largest fintech co. (on market cap). BABA has gained a foothold in the underpenetrated ecommerce markets of ASEAN with Lazada, and India with Paytm. GMV and revenue growth have decoupled due to BABA's effective personalization engine, especially after the algorithm change in Sept. 2016 which led to an acceleration in traffic, and higher GMV growth. We forecast GMV of US$1.16T, and monetization rate of 4.2% by FY21. **Valuation**: Our 12-mo SOTP-based target price is US$208. **Risks**: GMV growth, monetization rates and higher content spend.

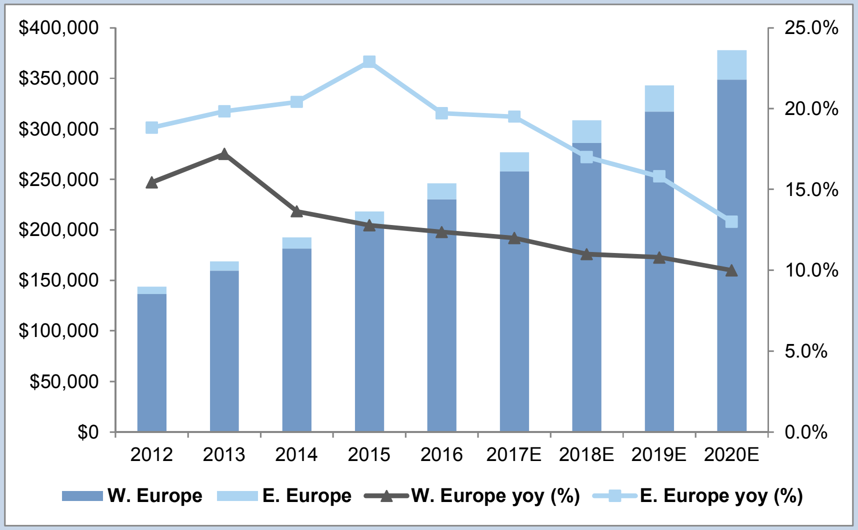
JD.com (JD). For China's largest mobile/computers/IT retailer, we forecast further penetration in appliances (low vs. electronics), FMCG & groceries (through omnichannel initiatives with Walmart, Daojia Dada), and apparel (cross-selling from JD Supermarket, investment in Farfetch). We expect 2020 GMV of Rmb1.69tn as JD continues to monetize its direct sales scale advantage. **Valuation**: Our 12-month SOTP-based target price is US$56. **Risks**: GMV slowdown, capital allocation, regulatory risks, and competition.

KEY THEMES

- **B2C appliances +33% in 1H**. Online B2C appliance sales grew 33% yoy to Rmb111.5bn in 1H17, where online penetration surpassed 20% for the first time and reached 25% of sales in 1H17 (vs. 20% in FY2016) according the Ministry of Industry and Information Technology (MIIT). Compared with the electronics segment's current online penetration of >50%, we see favorable tailwinds for online appliance sales to sustain high-growth over the next few years.

- **BABA to turn up to 6mn convenience stores into smart service centers**. BABA announced plans to create a network of 10k physical outlets across China where users can place orders online, apply for small loans and pick-up packages. This would be the first stage in BABA's strategy to create a larger network of smart service centers, turning up to 6mn convenience stores into smart service centers. This network would have BABA's e-commerce infrastructure and capabilities in financial technology and logistics. The ground-based campaign promises to disrupt traditional retail models in China, and likely worldwide, and dramatically expand Alibaba's business by leveraging its online presence of 529mn MAU.

WESTERN EUROPE



Source: Euromonitor, Goldman Sachs Global Investment Research

TOP PICKS

- **JUST EAT (JE.L).** JUST EAT is an online takeaway aggregator, operating a marketplace model which benefits from significant network effects and is highly profitable at scale (FY16 UK EBITDA margin of 51%). Being a clear market leader is a necessary condition in order to scale marketing/personnel costs and JE is #1 in all 12 of its markets. **Valuation:** 12m TP 820p; 85% SOTP (18x 2018e EV/EBITDA for UK/established markets/central costs, country analysis for developing markets) and 15% M&A component. **Risks:** Competitive disruption; lower-than-expected online takeaway penetration; higher-than-expected own delivery performed.

- **Ocado (OCDO.L).** We believe Ocado (a pure-play online grocer) is the best-placed grocer in our coverage to take advantage of, and drive, the channel shift to online grocery. We expect its cost and capital advantages over traditional store-based grocers to drive widening top-line and operational performance, as well as improving profitability and cash generation. Ocado are also looking to provide an end to end technology solutions to other grocers looking to sell groceries online. **Valuation:** 12m TP 440p; 70% DCF-driven SOTP (9.5% discount rate, 2% TG) and 30% M&A component. **Risks:** Weaker than expected sales growth; material deterioration in the UK grocery market; continued escalation in central costs.

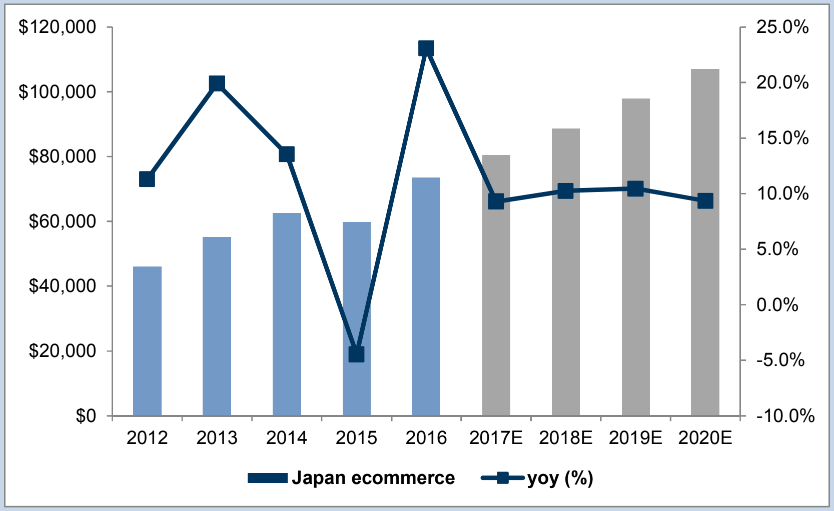
KEY THEMES

- **Mobile.** With mobile accounting for 75% of JUST EAT's orders (1H17) and >55% at Ocado (FY16) it is now the dominant medium through which orders are placed and is a channel that is still growing. Mobile, and within this app ordering, provides more attractive economics for JUST EAT (and other takeaway aggregators), despite the fact that they charge the same commission rates to restaurants as online orders conducted via PCs. This is because once a customer downloads the app and saves their personal details, they become a stickier customer and have a higher average order frequency. There is also lower performance marketing expenditure associated with app ordering, as you are taken directly to the marketplace and there will be no pay-per-click marketing costs associated with that order. These factors are also observed by Ocado, which points to growing mobile penetration as a factor leading to increased total spend per customer. An interesting fact of mobile is that the visible screen area is much smaller than that of a PC, which means an aggregator or retailer can command a premium for displaying a restaurant or a product at the top of the screen, increasing the likelihood of it being chosen by the consumer. JUST EAT monetizes this through "top placement" fees and Ocado through "media income".

- **Consolidation.** Following Tesco (grocery retailer) and Booker's (wholesaler) proposed merger in February there has been an elevated level of consolidation activity occurring in the UK. Morrisons, who already has a wholesale supply relationship with Amazon and is listed on the Prime Now app as a shop in shop, recently signed a deal to become the sole UK supplier to McColl's (a convenience store/newsagents chain). Nisa (convenience store chain) has stated that Co-op (convenience store chain, sixth biggest UK food retailer) are doing due diligence with a view to finalizing a transaction. B&M (variety retailer) acquired Heron Foods (discount convenience retailer) in August. This consolidation or proposed consolidation in the grocery, convenience and wholesale space are indicative of the highly competitive and challenged UK market where discounters (Aldi and Lidl) are still growing strongly, taking a monthly average of 140bp of market share YTD – both with store expansion plans.

- **Retail store closures** of non-food retailers have not been observed in the same way as in the US, however we would point to Marks and Spencer (Sell), an apparel and food retailer, which has embarked on a 5-year 60 store closure program in an attempt to combat declining non-food sales. With our discretionary retail barometer, we forecast for larger UK retailers' market share losses to continue in 2017/18e driven by secular channel shifts to online (where we expect to see premium growth) and store closures.

JAPAN



Source: Company data, METI, Euromonitor, Goldman Sachs Global Investment Research

TOP PICKS

Yahoo Japan (4689.T). Yahoo Japan is the largest online media company, largest online auction, and 3rd largest marketplace in Japan. Despite dominance in media, Yahoo Japan struggled in ecommerce until 2015. Since, YJ has waged price competition with incumbent Rakuten by dropping marketplace fees, as well as ramping loyalty points to achieve 42% GMV growth in 2016. We expect more ad and payment monetization of EC traffic going forward. **Valuation**: 12-mo target price of ¥670 is based on FY3/21E EV/NOPAT of 14X. **Risk**: Cost overruns and deterioration in ad environment.

GLP JREIT (3281.T). Demand exceeding supply on e-commerce growth, and dividend growth driven by acquisitions. **Valuation**: 12-mo target of ¥150,000 is based on FP2/20E NAV (¥124,063) and a NAV premium derived from 10-yr JGB yields, interest-bearing debt spreads, and the TOPIX dividend yield. **Risks**: logistics facility demand due to economic fluctuations, interest/cap rates.

MonotaRO (3064.T). MRO e-commerce market (EC ratio Japan 9%/US 20-30%) is on the rise. MonotaRO is taking share from traditional tool dealers, as account acquisitions grow >10%, and same customer ASP up mid-single digits to >10%. **Valuation**: 12-mo target of ¥3,900 based on a 10-year DCF model. **Risks**: growth stagnating and smaller-than-expected productivity gains.

KEY THEMES

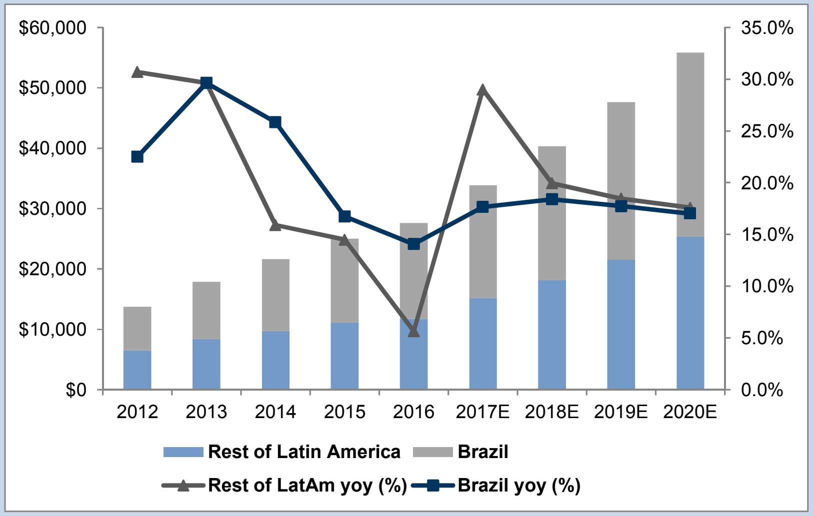
- **Every day consumption drives growth.** Japan's EC market grew 10.6% in 2016, accelerating from +6.4% in 2015, according to METI. By category, we saw faster growth in cosmetics /drugs, office supplies, furniture, and apparel. Growth underperformed in consumer electronics, auto, and food/beverages. We believe EC growth is shifting more towards everyday consumption. To cope with this, marketplace leader Rakuten created Rakuten Direct for 1P consumer products EC by combining Kenko.com and Sokai Drug. Yahoo Japan and Askul continue to invest into 1P consumer products service (Lohaco).

- **Loyalty points here to stay.** In 2015, Yahoo Japan surprised the market by introducing lucrative loyalty points for customers, followed by Rakuten's SPU7 (Super Point Up x7 campaign). 2 years on, Yahoo Japan continues to offer 12% of purchases back in points for premium members with YJ's credit card, and Rakuten as much as 7%. Each EC market is trying to create their own loyal customer segment (e.g. Yahoo Japan is trying to capture Softbank smartphone users as premium members), so competition between Rakuten and YJ to lock-in customers is likely to be prolonged, and semi-permanent in nature. Their strategies are more akin to extending the monetization from take rates on transactions to commission fees on payment services, rather than expanding customer segments.

- **Transport Crisis.** Logistics infrastructure in Japan is straining under the pressure from growth in EC. EC logistics is primarily B2C, with packages distributed by small-lot transportation services ("takuhaibin", or parcel delivery services). However, these services were originally set up to cater to C2C, and therefore have been unable to handle the sharp rise in volume. Parcel delivery operators are now asking EC operators to choose between higher prices or volume controls. For instance, Yamato Transport, Japan's largest door-to-door parcel delivery company, plans in FY3/18 to hike prices by 4.7%, while also reducing volume by 2.0%. Japan's logistics industry is also considering redefining what constitutes sufficient social infrastructure and an appropriate level of logistics costs. We expect the tension between EC operators and the logistics industry to continue.

- **Retail-EC Alliance.** Currently, alliances between EC and offline retail are expanding. In July 2017, Askul (Yahoo Japan subsidiary) and Seven&i Holdings (Japan's largest convenience store chain) announced a partnership to cooperate across EC and delivery. Although we have not seen large M&A/capital alliances, such as that between Amazon and Whole Foods, a quiet transformation in the retail and EC realms is taking place in Japan, in our view. In addition, Yahoo Japan and Rakuten are continuing with promotions with high point payout rates, which can be used in many offline stores like restaurants, convenience stores, book stores, hotels, and sporting goods shops, enabling EC users to use points earned for offline purchases. While retail-EC alliances are not being formed in Japan at the same pace as overseas, we expect this will happen eventually.

LATIN AMERICA



Source: Company data, IBGE, IPCA, Euromonitor, Goldman Sachs Global Investment Research

TOP PICK

Netshoes (NETS, Buy). +107% upside to our US$23 12-mo PT

- **Solid growth prospects.** With c. 60% market share of Brazil's online sporting goods market, we see NETS leadership in a vertical, where supplier relationships matter, as its competitive moat. We forecast +27% 2017-19E GMV CAGR (90% derived from Brazil).
- **Operating leverage to drive positive EBITDA in 2018E.** We forecast 1% consolidated EBITDA margin in 2018E (from -2.5% in 2016), primarily driven by operating leverage.
- **Compelling valuation.** With the stock trading at 0.6X 2018E EV/Sales (60% below global peers), we see valuation as undemanding, even considering the company's below-average profitability and FCF profile.
- **Risks to the downside include**: (1) increasing competition, from new online competitors or brands' DTC operation, (2) lower-than-expected operating leverage, (3) higher-than-expected working capital and capex.

KEY THEMES

- **LatAm e-commerce: Structural growth story in place.** The structural online shift of retailing continues to play out in LatAm, as penetration continues to increase: we estimate 4.3% of retail sales in 2017, up from 3.7% in 2015. This remains below global levels (10%/17% in the US/China), leaving substantial room for growth. In 2016, ecommerce GMV in LatAm reached US$28bn, with growth remaining robust at +24% (weighted average in local currency). We see solid growth prospects for years to come (+21% 2016-20E GMV CAGR), supported by rising, albeit still relatively low access to broadband or mobile internet, financial inclusion and improvements in logistics solutions. Brazil is the largest market, responsible for 60% of total LatAm GMV, with a 4.4% penetration of retail sales (2016).
- **Brazil: Improving consumers' purchasing power supports GMV growth, but macro remains sluggish.** In Brazil, we continue to see signs of gradual improvement in the consumer backdrop, with a recovery in purchasing power, which we expect to support a pick-up in overall real retail sales (broadly flat yoy in 2017E vs. -6.2% yoy in 2016). However, the overall macro backdrop remains sluggish (GS estimates real GDP growth of +0.7% in 2017), with unemployment still at record highs. Within this context, we expect GMV to grow at +18% in nominal local currency terms in 2017E, accelerating from +14% yoy in 2016, with penetration reaching 5.1% of total retail sales (vs. 4.4% in 2016). This should also be supported by increasing mobile commerce (32% of total 2017E online retail sales vs. 22% in 2016) and lower prices in the online channel (-5.4% yoy as of June 2017, according to Ebit association).
  - **For Neutral-rated MercadoLibre (25% estimated share of the market in 2017E),** we forecast +49% yoy GMV growth in 2017E, mainly driven by an increase in items sold (+58% yoy), boosted in turn by its recently launched free-shipping campaign.
  - **For the rest of the industry, we forecast +10% yoy GMV growth**, in-line with the guidance provided by industry association Ebit. In 1H17, the group's (ecommerce market ex-MELI) GMV grew +7.5% yoy, partly driven by growth in orders (+3.9%) and in average tickets (+3.5% yoy), primarily due to a better mix.

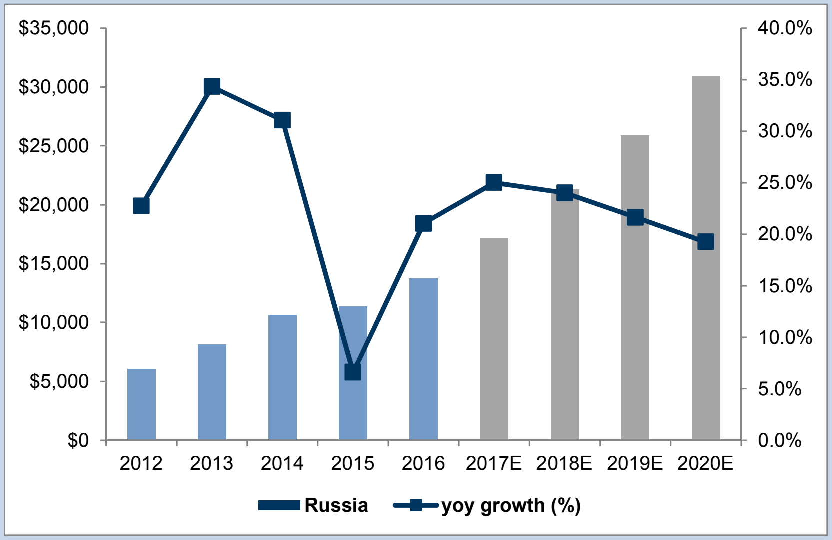
LATIN AMERICA

KEY THEMES

- **Brazil: Amazon - the elephant in the room. A question of when, not whether**. Investors have been concerned about a potential increase in competition in Brazil, given repeated press coverage on Amazon potentially expanding its ecommerce operation in the country (currently exclusively focused on the sale of books). However, while we recognize that the impact in the local competitive environment could be material medium-term, the near-term impact may be somewhat more gradual than what we have seen in Mexico. Some articles have suggested AMZN would initially rely exclusively on 3P sellers and focus on (smaller) electronics in Brazil, unlike the approach it took in Mexico, where it used a hybrid (1P/3P) strategy to enter 15 different categories at launch. Regardless, we believe that room for complacency is limited. We believe MELI's recent roll out of its free-shipping campaign to Brazil, as well as effort to build out its fulfillment capabilities through sortation centers, shows that incumbents are battening down the hatches

- **LatAm Ex-Brazil: Is Mexico a playbook for the rest of LatAm?** Mexico accounts for c.17% of LatAm's GMV and the market's competitive dynamic has fueled investor concerns that this could be a playbook for other markets like Brazil and Argentina. Since Amazon's entry to Mexico in June 2015, the fight for market share has intensified significantly, with companies prioritizing growth over margins and making sizeable investments in marketing (120% of MELI's net sales in 2Q17) and free shipping (AMZN offers free shipping for orders above US$30 since June 2015 and MELI followed with a matching offer in September 2016). That said, although we acknowledge the risk of a potentially similar outcome in other countries, we believe this may play out differently in markets like Brazil, where the leading five players consolidate 63% of market share (in 2016; compared to only 23% in 2014 in Mexico, ahead of AMZN's entry). Moreover unlike in Mexico, where AMZN benefits from the proximity to the US and NAFTA trade rules, allowing the company to leverage inventories and marketplace vendors in its home market at competitive costs, Brazil is relatively protected market, with high import tariffs.

RUSSIA



Sources: AKIT, Euromonitor, Goldman Sachs Global Investment Research

TOP PICK

Yandex (YNDX)

Yandex is our top-pick in the Russian Internet space. Yandex is Russia's largest search engine with c.55% share, operates dominant e-hailing company Yandex.Taxi, owns the leading autos brand in Moscow (Auto.ru), and operates Russia's largest e-commerce marketplace Yandex.Market. We view Yandex as uniquely exposed to Russian Internet markets as its platform combines ecosystems similar to that of Google, Amazon and Uber. We expect market share growth across segments in the medium term as well as continued growth of addressable markets. Recently announced JVs with Uber (e-hailing) and Sberbank (e-commerce) also create substantial synergies, in our view.

We are Buy-rated on Yandex. Our 12-month price target of US$37.2 is based on a SOTP (21x 2018E P/E for the core search business and a DCF (RUB166 bn EV) for the taxi segment). Key risks to our view and price target include a macro weakening, tougher competition in mobile/taxis, inflated distribution or marketing costs, weaker execution and adverse internet regulation in Russia.

KEY THEMES

- **Penetration growth.** Russian e-commerce market penetration is just 4%, significantly below worldwide average of c.9%, despite higher internet penetration. Key obstacles of e-commerce market growth are 1) Logistics (natural issue of low population density, large distances); Poor status of Russian Post (long delivery time); 2) Fulfillment (ability to quickly and cheaply fulfil the order, including multiple-goods within one order); 3) Regulation. Lack of government support / disadvantage vs international peers (no customs duty / VAT for international parcels; Drugs and alcohol not allowed for e-commerce); 4) Cash on delivery (low level of trust, high return ratio, working capital problems). Gradual resolution to each of the problems will drive online penetration growth, in our view.

- **Market consolidation.** Russian e-commerce market is very fragmented. We estimate Aliexpress market share at >20%; Yandex market share at c.12% and the rest of the market participants having less than 10% market share. Cross-boarder transactions represent a third of the overall market, and its share keeps growing.

  Yandex and Sberbank announced US$1 bn e-commerce JV in August 2017. The deal could be transformational to the Russian e-commerce market, in our view. Cooperation unlocks substantial synergies: In our view, the deal should allow Yandex.Market to consolidate a substantial part of the Russian e-commerce market and drive e-commerce penetration growth in Russia. The proposed joint venture will have significant big-data capability (from client credit scoring to merchant credit quality assessment). In our view, synergy effects should also include the ability to create smooth payment and lending methods (providing solutions to the cash on delivery issue faced by Russian e-commerce), accelerate the build-up of logistics infrastructure; attract and retain high-quality merchants on the platform (including international); and improve bargaining power.

- **Retail store closures.** Is not yet observed in Russia as a major trend. E-commerce penetration remains to be low in Russia. Online food retail penetration is just 0.4%. Still, we have observed lower pace of DIY-store openings in 1H17, despite accelerating economic growth. This is in part explained by shift to online, in our view. According to Infoline, 62%of the largest DIY-retailers in Russia develop e-commerce. Mobile operators announced plans to cut retail distribution network, partly driven by continued shift of handset sales to online, we believe.

Rating and pricing information

Alibaba Group (B/N, $171.04), Amazon.com Inc. (B/A, $978.25), Canada Goose Holdings (B/N, $18.17), CarMax Inc. (B/N, $68.12), GLP J-REIT (B/N, ¥116,800), JD.com Inc. (B/N, $41.40), JUST EAT (B/N, 679.00p), Marks & Spencer (S/N, 320.80p), MonotaRO (B/N, ¥3,200), Netshoes (Cayman) Ltd. (B/N, $11.56), Nike Inc. (B/N, $53.36), Ocado Group (B/N, 301.40p), PayPal Holdings (B/A, $61.46), Schibsted ASA (B/A, Nkr190.30), Ulta Beauty Inc. (B/N, $221.73), Wal-Mart Stores Inc. (B/N, $78.37), Yahoo Japan (B/N, ¥498) and Yandex NV (B/N, $32.21)

Financial Advisory Disclosure

Goldman Sachs and/or one of its affiliates is acting as a financial advisor in connection with an announced strategic matter involving the following company or one of its affiliates: Just Eat Plc

Disclosure Appendix

Reg AC

I, Heath P. Terry, CFA, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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The Goldman Sachs Factor Profile provides investment context for a stock by comparing key attributes to the market (i.e. our coverage universe) and its sector peers. The four key attributes depicted are: Growth, Financial Returns, Multiple (e.g. valuation) and Integrated (a composite of Growth, Financial Returns and Multiple). Growth, Financial Returns and Multiple are calculated by using normalized ranks for specific metrics for each stock. The normalized ranks for the metrics are then averaged and converted into percentiles for the relevant attribute. The precise calculation of each metric may vary depending on the fiscal year, industry and region, but the standard approach is as follows:

Growth is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACF) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

Financial Returns and Multiple use the Goldman Sachs analyst forecasts at the fiscal year-end at least three quarters in the future. Growth uses inputs for the fiscal year at least seven quarters in the future compared with the year at least three quarters in the future (on a per-share basis for all metrics).

For a more detailed description of how we calculate the GS Factor Profile, please contact your GS representative.

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Disclosures

Coverage group(s) of stocks by primary analyst(s)

Heath P. Terry, CFA: America-Internet. Matthew J. Fassler: America-Retail: Specialty Hardlines. Lindsay Drucker Mann, CFA: America-Accessories: Handbags and Jewelry, America-Brands: Athletic and Other Wholesale Brands, America-Retail: Department Stores & Specialty, America-Retail: Off-Price. Piyush Mubayi: China Internet. Irma Sgarz: Latin America-Retail & Consumer Goods. Masaru Sugiyama: Japan Internet and Games, Japan-Consumer Electronics, Japan-Media. Rob Joyce: Europe-Food Retail, Europe-General Retail. Ronald Keung, CFA: China Internet, China Logistics. Lisa Yang: EMEA New Markets-Media, Europe-General Retail, Europe-Media. Sho Kawano: Japan-Retail/Restaurants. Vyacheslav Degtyarev: EMEA New Markets-Media, EMEA New Markets-Telecoms.

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America-Brands: Athletic and Other Wholesale Brands: Canada Goose Holdings, Canada Goose Holdings, Carter's Inc., Columbia Sportswear Co., Hanesbrands Inc., Nike Inc., PVH Corp., Ralph Lauren Corp., Under Armour Inc., VF Corp..

America-Internet: Amazon.com Inc., Bankrate Inc., Blue Apron Holdings, Criteo SA, eBay Inc., Endurance International Group, Etsy Inc., Expedia Inc., Groupon Inc., GrubHub Inc., IAC/InterActiveCorp, LendingClub Corp., Match Group, Netflix Inc., Pandora Media Inc., PayPal Holdings, Priceline.com Inc., Redfin Corp., Shutterfly Inc., Snap Inc., TripAdvisor Inc., Trivago N.V., TrueCar, Twitter Inc., WebMD Health Corp., Yelp Inc., Zillow Group, Zynga Inc..

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America-Retail: Off-Price: Burlington Stores Inc., Ross Stores Inc., TJX Cos..

America-Retail: Specialty Hardlines: Advance Auto Parts Inc., At Home Group, AutoZone Inc., Bed Bath & Beyond Inc., Best Buy Co., CarMax Inc., Container Store Group, Costco Wholesale, Floor & Decor Holdings, Genuine Parts Co., Home Depot Inc., KAR Auction Services Inc., Lowe's Cos., Lumber Liquidators Holdings, Michaels Cos., Monro Muffler Brake Inc., O'Reilly Automotive Inc., Office Depot, RH, Staples Inc., Target Corp., Ulta Beauty Inc., Wal-Mart Stores Inc., Wayfair Inc., Williams-Sonoma Inc..

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China Logistics: Kerry Logistics Network Ltd., Sinotrans Air Transportation Dev, Sinotrans Ltd., ZTO Express (Cayman) Inc..

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EMEA New Markets-Telecoms: Cyfrowy Polsat, Magyar Telekom, MegaFon, Mobile Telesystems, MTN Group, Orange Polska SA, OTE, Rostelecom, Sistema JSFC, Telkom SA, Turk Telekom, Turkcell Iletisim Hizmetleri AS, Veon Ltd., Vodacom.

Europe-Food Retail: Ahold Delhaize NV, Booker Group, Carrefour, Casino, Colruyt, J Sainsbury, Jeronimo Martins, Morrison (Wm), Ocado Group, Tesco.

Europe-General Retail: adidas, ASOS Plc, Associated British Foods, B&M European Value Retail SA, Brunello Cucinelli SpA, Burberry, Debenhams, Delivery Hero, Dixons Carphone Plc, Europris ASA, Hennes & Mauritz, Hugo Boss AG, Inditex, JUST EAT, Kering, Kingfisher, Luxottica (Italy), LVMH Moet-Hennessy Louis Vuitton, Maisons du Monde SAS, Marks & Spencer, Moncler SpA, Next, OVS SpA, Pandora, Pets at Home Group, Prada SpA, Puma, Richemont, Rocket Internet SE, Salvatore Ferragamo SpA, Showroomprivé, Steinhoff International Holdings, Swatch Group, Takeaway.com, Technogym SpA, Ted Baker, Thule Group, Tod's, Tokmanni Group, XXL ASA, YOOX Net-A-Porter Group, Zalando SE.

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Japan Internet and Games: Bandai Namco Holdings, Capcom, CyberAgent, DeNA Co., Kakaku.com, Konami, LINE Corp., Nexon, Nintendo, Rakuten, Recruit Holdings, Sega Sammy Holdings, Square Enix Holdings, Yahoo Japan.

Japan-Consumer Electronics: Panasonic Corp., Sony.

Japan-Media: Dentsu, Hakuhodo DY Holdings.

Japan-Retail/Restaurants: ABC-Mart, Adastria, Aeon, Ain Holdings, Askul, Cosmos Pharmaceutical, Don Quijote Co., FamilyMart UNY Holdings, Fast Retailing, H2O Retailing, Isetan Mitsukoshi Holdings, J. Front Retailing Co., K's Holdings, Komeri, Lawson, Marui Group, MonotaRO, Nitori, Onward Holdings, Ryohin Keikaku, Saizeriya, Seven & i Holdings, Shimamura, Skylark Co., Sugi Holdings Co., Tsuruha Holdings, Welcia Holdings, Yamada Denki.

Latin America-Retail & Consumer Goods: Arezzo & Co., B2W, CBD (Pão de Açúcar), Cencosud, Cia Hering, El Puerto De Liverpool, Falabella, Grupo Carrefour Brasil, Hypermarcas, Laureate Education Inc., Lojas Americanas, Lojas Renner, MercadoLibre Inc., Natura, Netshoes (Cayman) Ltd., Raia Drogasil, Soriana, Via Varejo SA, Wal-Mart de Mexico, Wal-Mart de Mexico.

Company-specific regulatory disclosures

Compendium report: please see disclosures at http://www.gs.com/research/hedge.html. Disclosures applicable to the companies included in this compendium can be found in the latest relevant published research

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Goldman Sachs Investment Research global Equity coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	32%	54%	14%	65%	56%	49%

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Price target and rating history chart(s)

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Regulatory disclosures

Disclosures required by United States laws and regulations

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