

US Internet 2021 Outlook

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J.P. Morgan Internet Coverage

Summary of Price Target & Rating Changes

★ Top Picks

Doug Anmuth



Cory Carpenter



Company	Ticker	Rating	PT
MEGA CAPS			
Amazon	AMZN	OW	\$4,100
Alphabet ★	GOOG/L	OW	\$2,050 ↑
Facebook ★	FB	OW	\$330
ONLINE ADS - LARGE CAP			
Snap	SNAP	OW	\$60 ↑
Twitter ★	TWTR	OW ↑	\$65 ↑
Pinterest	PINS	OW	\$82 ↑
CONSUMER SUBSCRIPTION			
Netflix	NFLX	OW	\$628
Spotify	SPOT	OW	\$350 ↑
Peloton ★	PTON	OW	\$145
Chegg	CHGG	N	\$82 ↑
RIDESHARE			
Uber	UBER	OW	\$63 ↑
Lyft ★	LYFT	OW	\$64 ↑

Company	Ticker	Rating	PT
E-COMMERCE			
eBay	EBAY	N	\$55
Chewy	CHWY	OW	\$97
Farfetch	FTCH	OW	\$68
GoodRx	GDRX	UW	\$29
OTAs			
Booking Holdings	BKNG	N	\$1,850
Expedia	EXPE	N	\$110
TripAdvisor	TRIP	UW	\$22
trivago	TRVG	UW	-
SMID-CAPS			
Cardlytics	CDLX	N	\$110 ↑
Criteo	CRTO	UW	\$15 ↑
Eventbrite	EB	N	\$15 ↑
EverQuote	EVER	OW	\$48 ↓
Fiverr	FVRR	N	\$155
Groupon	GRPN	UW	\$23

Company	Ticker	Rating	PT
Match Group	MTCH	N	\$130
IAC	IAC	OW	\$175 ↑
ANGI Homeservices	ANGI	OW	\$14
Stitch Fix	SFIX	N	\$39

Company	Ticker	Rating	PT
J2 Global	JCOM	OW	\$120 ↑
Frontdoor	FTDR	OW	\$57 ↑
MediaAlpha	MAX	N	\$39
Yelp	YELP	N	\$26

Agenda

- 1 Recap of 2020**
- 2 Key Themes in 2021
- 3 Best Ideas in 2021
- 4 Appendix: Comps & Industry Models

Internets Significantly Outperformed in 2020...

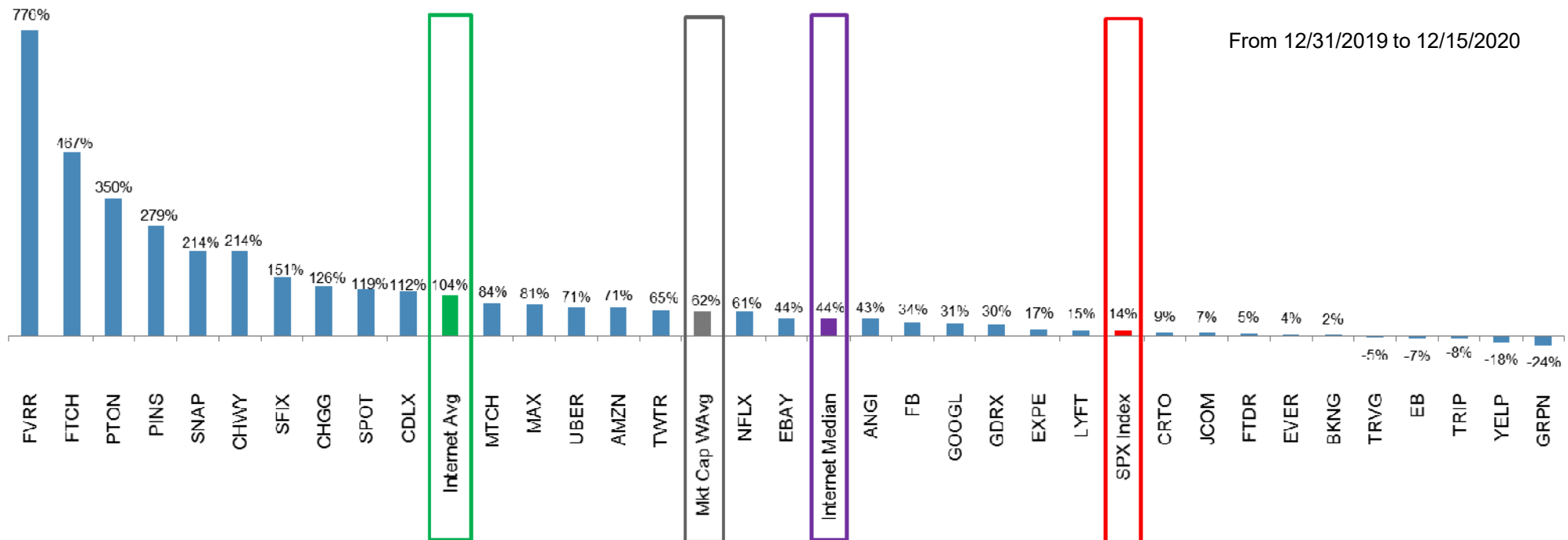
Internets Up +62% YTD on Market-Cap Weighted Basis vs. S&P 500 +14%

- JPM Internet Coverage Universe Average: **+104%**
- JPM Coverage Market-Cap Weighted Average: **+62%**
- JPM Internet Coverage Universe Median: **+44%**
- S&P 500: **+14%**

Performance by Mkt Cap Size

Mega Cap	+49%
Large Cap	+144%
Mid Cap	+129%
Small Cap	-5%

Source: Bloomberg Finance L.P. as of 12/15/20 close.
Based on current market cap. Note: Mega Cap: >= \$200B; Large Cap: \$20-200B; Mid Cap: \$2-20B; Small Cap: <= \$2B.



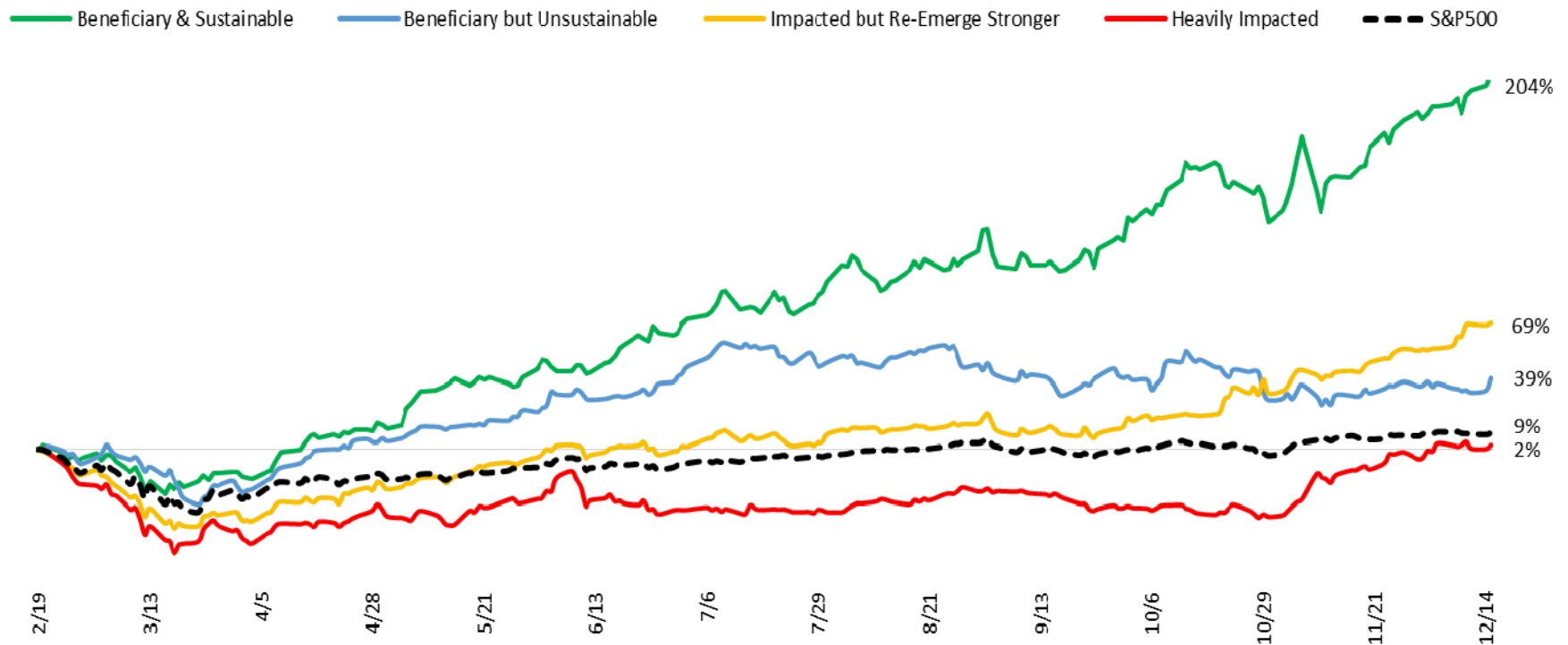
Source: Bloomberg Finance L.P. & J.P. Morgan as of 12/15/20.

Note: Internet average & median are straight. Market Cap is based on Bloomberg definition. Market cap weighted average is based on current market cap.

*Excludes IAC (IAC/MTCH Separation on 6/30/20). **GDRX IPO @ \$33 on 9/22/20. MAX IPO @ \$19 on 10/27/20.

...But with Significant Performance Variance

Bifurcation of COVID-19 Impact on Internet Equities



Note: We define COVID-19 impacts starting on 2/19/20. Pricing as of 12/15/20. Excludes GRDX (IPO @ \$33 on 9/22/20), MAX (IPO @ \$19 on 10/27/20) & IAC (Separation on 6/30/20). Source: Bloomberg Finance L.P., J.P. Morgan.

BENEFICIARY & SUSTAINABLE

AMZN, FTCH, CHWY, NFLX,
SPOT, PTON, CHGG, MAX,
EVER, IAC, FVRR

BENEFICIARY BUT UNSUSTAINABLE

EBAY

IMPACTED BUT RE-EMERGE STRONGER

GOOGL, FB, SNAP, TWTR, PINS,
JCOM, CDLX, CRTO, GDRX, SFI
FTDR, ANGI, MTCH

HEAVILY IMPACTED

BKNG, EXPE, TRIP, TRVG,
UBER, LYFT, YELP, GRPN, EB

Performance Since Vaccine Announcement

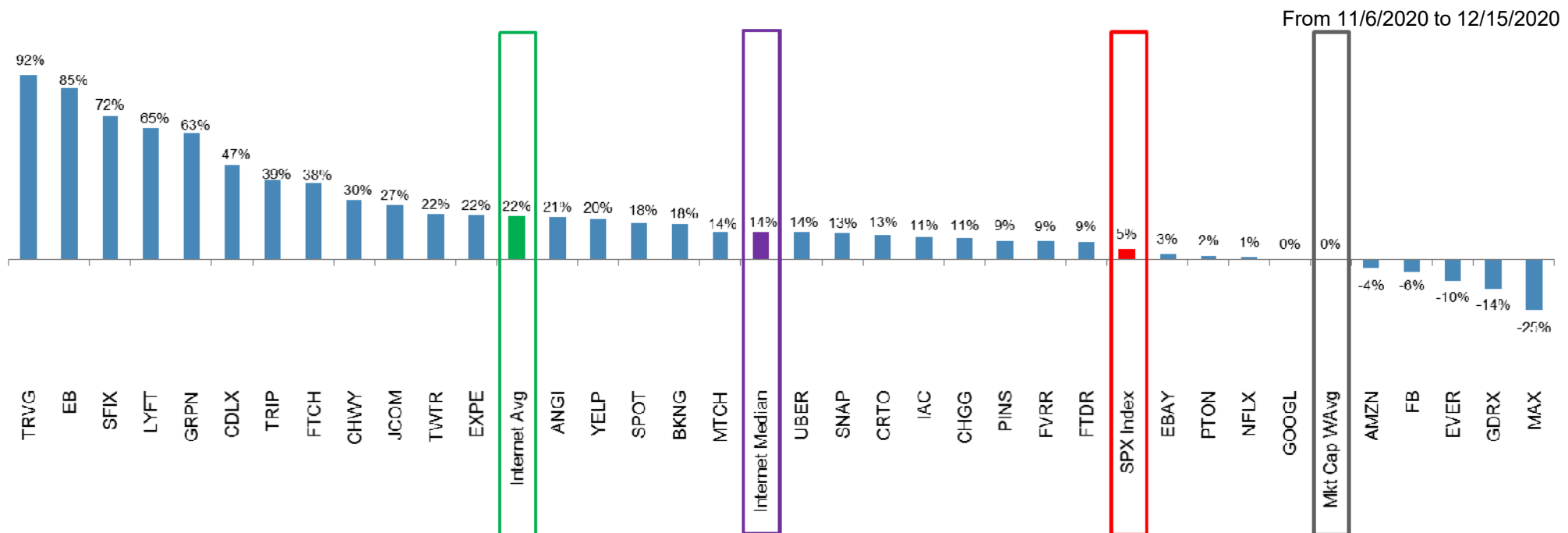
Since Nov 6, Internets Up +22% on Average, but Flat on Market-Cap Weighted Basis

- JPM Internet Coverage Universe Average: **+22%**
- JPM Coverage Market-Cap Weighted Average: **Flat**
- JPM Internet Coverage Universe Median: **+14%**
- S&P 500: **+5%**

Performance by Mkt Cap Size

Mega Cap	-2%
Large Cap	+14%
Mid Cap	+23%
Small Cap	+48%

Source: Bloomberg Finance L.P. as of 12/15/20 close.
Based on current market cap. Note: Mega Cap: >= \$200B; Large Cap: \$20-200B; Mid Cap: \$2-20B; Small Cap: <= \$2B.



Source: Bloomberg Finance L.P. & J.P. Morgan as of 12/15/20.

Note: Internet average & median are straight. Market Cap is based on Bloomberg definition. Market cap weighted average is based on current market cap.

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4 Appendix: Comps & Industry Models

Key Themes in 2021

JPM's Top Internet Themes in 2021

- 1 COVID-19 Recovery & Return to Normalcy
- 2 Vaccine & Re-opening Winners
- 3 Online Ad Acceleration
- 4 E-commerce Elevation
- 5 Social Primed for Commerce
- 6 Mega Caps Search for Next Big Growth Drivers
- 7 SMID-Caps More in Focus
- 8 Regulatory Focus Continues

Key Themes in 2021

1 COVID-19 Recovery & Return to Normalcy

Our View on COVID Buckets into 2021 and Beyond

Beneficiary & Sustainable

- E-commerce: AMZN, FTCH, CHWY
- Consumer Subscription: NFLX, SPOT, PTON, CHGG★
- Insurance lead gen: MAX, EVER
- SMID-caps: IAC (Vimeo), FVRR

+204% since CV-19 on avg

Impacted, but Reemerge Stronger

- Online Ads: GOOGL★, FB★, SNAP, TWTR★, PINS, JCOM, CDLX, CRTO
- E-commerce: GDRX, SFI
- Local: ANGI, FTDR
- Consumer Subscription: MTCH

+69% since CV-19 on avg

Beneficiary & Not Sustainable

- E-commerce: EBAY

+39% since CV-19

Heavily Impacted, but Poised to Recover

- OTAs: BKNG, EXPE, TRIP, TRVG
- Rideshare: UBER, LYFT★
- Local: YELP, GRPN
- Events: EB

+2% since CV-19 on avg

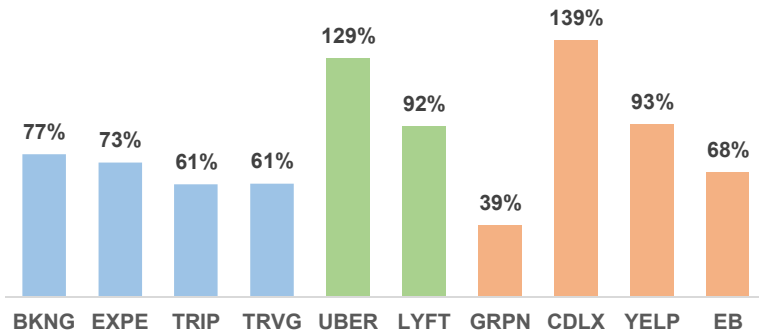
★**Top Picks: GOOGL, FB, TWTR, PTON, LYFT**

Key Themes in 2021

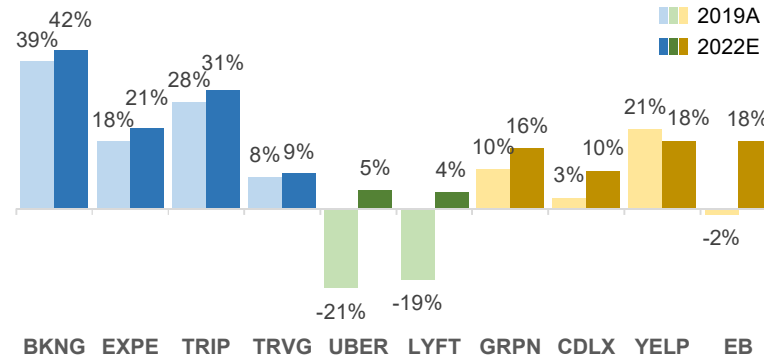
2 Vaccine & Reopening Winners

OTAs, Rideshare, Local, & Events Should See the Biggest Upside from Vaccine & Reopening

2021E Revenue as % of 2019 Actual Revenue



2022E Adj. EBITDA Margins vs. 2019 Actual



Vaccine Timeline

Global COVID-19 Vaccine Production Volumes

4Q20: 1.0B

1H21: 7.6B

2H21: 11.1B

2022: 26.1B

2023: 27.5B

Key Developments

Number of Secured Doses

Global: 5.7B

US: 2.6B & EU: 2.0B

13B Doses Needed for Global Herd Immunity

Pfizer-BioNTech vaccine deployment in the U.S. began on 12/14/20

Key Topics to Consider in Vaccine / Reopening Environment

- Our '21 revenue estimates for heavily impacted names are still below '19 levels... except for UBER (Eats strength) & CDLX (following broader ad market recovery)...these companies should see the biggest operational improvement from vaccine & re-opening
- Top-line recovery could be swift due to pent-up demand...
- But recovery should begin closer to home w/rideshare & local likely before big online travel
- **Cost savings push our '22 Adj. EBITDA margin estimates mostly above '19 levels...** most significantly for UBER, LYFT, EB

We Prefer Rideshare to the OTAs...LYFT over UBER...BKNG over EXPE...and CDLX in Local

Key Themes in 2021

3 Online Ad Acceleration

Online Ads Proved Resilient in 2020 and Should Accelerate in 2021

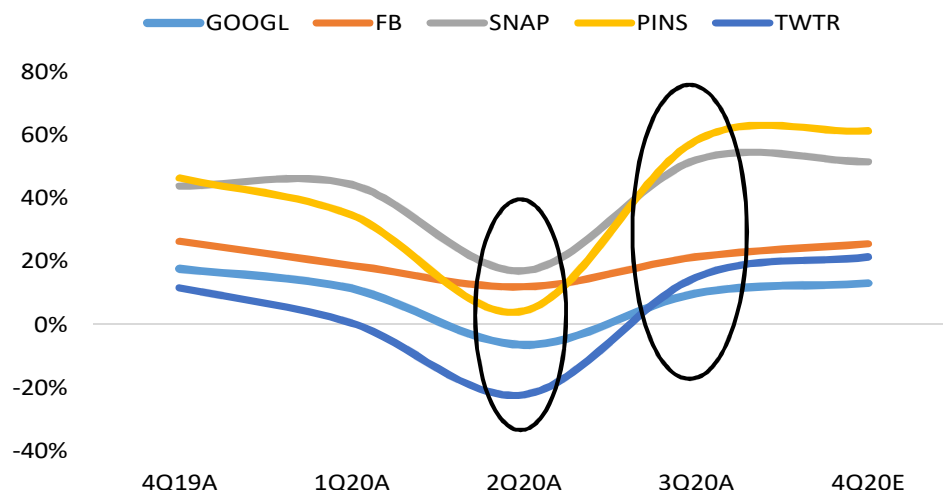
- Strong engagement and accelerated shift to digital economy
- E-commerce acceleration and higher penetration rates
- Overall digital ad industry expected to accelerate in 2021
- Easy comps end of 1Q into 2Q
- Pent-up ad demand from 2020
- Digital media product innovations

JPM Online Ad Model Snapshot

\$ in millions	2019A	3/20E	6/20E	9/20E	12/20E	2020E	2021E
Total Online Advertising	\$124,613	\$31,400	\$29,898	\$35,336	\$40,739	\$137,373	\$164,848
% Y/Y growth	15.9%	12.1%	0.0%	13.0%	15.0%	10.2%	20.0%
Online as % of Total US Advertising	54.0%	58.6%	59.7%	64.5%	63.4%	61.7%	66.1%
Y/Y change (bps)	598	762	716	884	689	768	441
Total US Advertising	\$230,789	\$53,592	\$50,085	\$54,822	\$64,247	\$222,746	\$249,476
%Y/Y growth	3.1%	-2.5%	-12.0%	-2.5%	2.5%	-3.5%	12.0%
Seasonality		24.1%	22.5%	24.6%	28.8%		
By Format							
Search	54,700	13,626	12,262	15,029	16,867	57,785	67,504
Y/Y growth	13%	8%	-8%	10%	12%	6%	17%
Banner	38,100	9,756	9,485	10,698	12,542	42,481	51,180
Y/Y growth	14%	12%	4%	14%	15%	11%	20%
Video	21,719	5,844	5,768	7,092	8,613	27,317	35,164
Y/Y growth	33%	28%	16%	24%	33%	26%	29%
Others (classified, lead gen, Audio...)	10,113	2,174	2,383	2,517	2,716	9,790	11,000
Y/Y growth	9%	0%	-3%	2%	-10%	-3%	12%

Source: IAB, Magna Global, J.P. Morgan estimates.

SNAP Fared Best During 2Q Trough, While PINS Recovered Sharpest



Source: Company reports & J.P. Morgan estimates. Note: GOOG is FXN Google Gross Ad Rev Growth, FB is FXN Ad Rev Growth, SNAP is Total Rev Growth, PINS is Total Rev Growth, & TWTR is FXN Ad Rev Growth.

Company-Specific Drivers

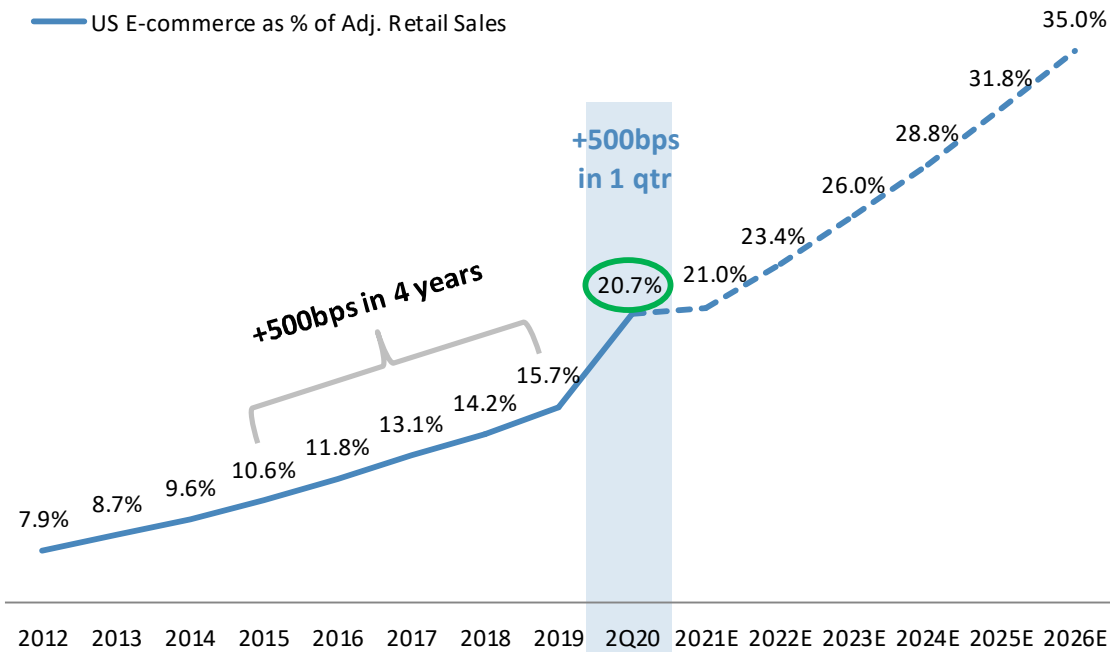
- **GOOG:** highest exposure to Travel when ad spend resumes
- **FB:** new surfaces to monetize (Reels, Shops)
- **TWTR:** easiest comps; rebuilt Ad Server; MAP 2.0 / DR roadmap
- **SNAP:** transition to “always on” platform; AR/Virtual Try-On
- **PINS:** e-commerce, AR, conversion optimization, automatic bidding attract additional advertisers

TWTR will show biggest acceleration in 2021 ad revenue growth

Key Themes in 2021

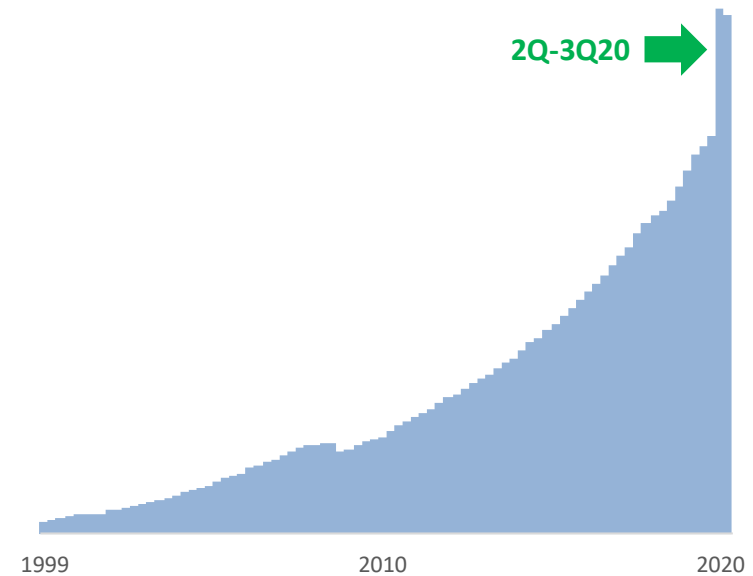
4 E-commerce Elevation

US E-commerce Pulled Forward ~3-4 Years in 1 Qtr



Source: US Department of Commerce and J.P. Morgan estimates. Note: Adj. Retail Sales excludes food services & drinking places, automobile & other motor vehicle dealers, and gasoline stations.

E-commerce Has Sustained “New Normal” Even as Stores Reopen



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

What Companies Are Best Positioned for Sustained Growth in 2021?

- **Amazon:** 1) Prime ecosystem w/150M+ global subs & return to 1-2 day delivery; 2) High purchase frequency in CPG/home products will continue; 3) Well positioned in online grocery; 4) AMZL delivering 50%+ of packages
- **Chewy:** 1) High recurring revenue w/Autoship customers ~70% of revenue; 2) Land & expand cohort behavior as customer spend typically ~doubles in year 2; & 3) Pharma ramping w/telehealth & services new opportunities
- **Farfetch:** 1) Luxury online penetration almost doubling to 23% in 2020; 2) Brand momentum w/direct e-concession 50%+ of supply; 3) China Tmall Luxury Pavilion store in 2Q21; & 4) EBITDA profitability in 4Q20 & 2021

Key Themes in 2021

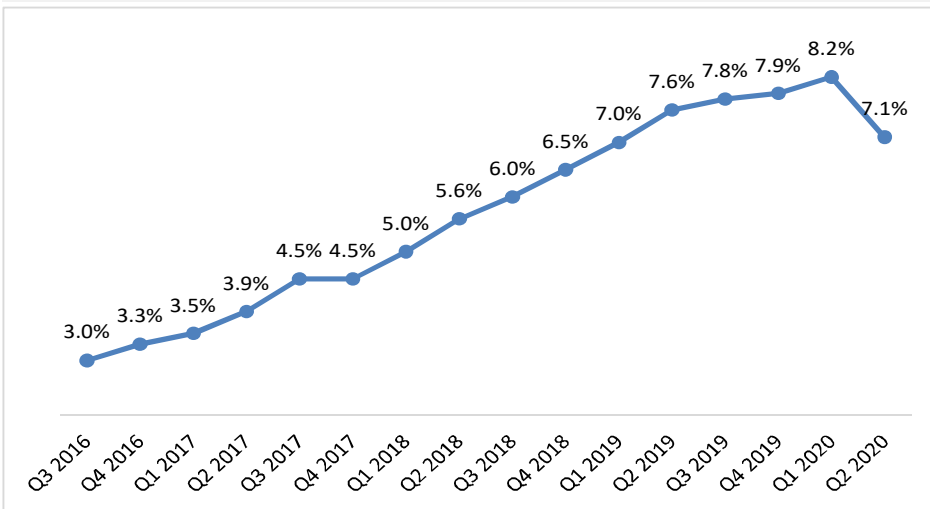
5 Social Primed for Commerce

Key Drivers

- **Large & heavily engaged user bases** (i.e., FB Family 3B+ users; SNAP users spend ~30+ mins per day; PINS high commercial intent)
- **Visual platforms w/robust targeting capabilities**
- **Strong self-serve advertiser & merchant tools**
- **Integrated shopping experiences**

Social Advertising Driving E-commerce

US Social Referral Share of Total Traffic to E-commerce Sites



Source: Adobe Digital Insights, July 15, 2020. Note: Based on 50B+ online US page visits since 3Q16 across all internet connected devices.

Key Social Commerce Initiatives

GOOGL	FB	SNAP
<ul style="list-style-type: none"> • Merchant Center • Google Shopping • YouTube shopping ads w/product listings • SHOP partnership • TrueView video campaigns 	<ul style="list-style-type: none"> • FB Shops / IG Checkout • FB / WhatsApp Pay • Product Tagging • SHOP partnership (along w/others) • Shop on WhatsApp w/ Carts • Click to Messaging ads • FB Marketplace 	<ul style="list-style-type: none"> • Catalog uploader • Snap Pixel • Dynamic Ads • SHOP partnership (along w/others) • Virtual try-on • Shoppable ads / AR experiences • Self-serve
PINS	TWTR	TikTok
<ul style="list-style-type: none"> • Shop Tab, Shopping Spotlight, & Shoppable Pins • Catalog ingestion • oCPM ads • Virtual try-on • Auto-bid • VMP / Conversion Analysis tools • SHOP partnership 	<ul style="list-style-type: none"> • Revenue product #1 company priority • Rebuilt ad server • MAP 2.0 • DR roadmap • Potential Fleets ads 	<ul style="list-style-type: none"> • TikTok For Business Ads Manager • TikTok Pixel • “Shop Now” call to action button • E-commerce links in user profiles • SHOP partnership

FB is furthest along in Social Commerce with greater monetization expected in 2021

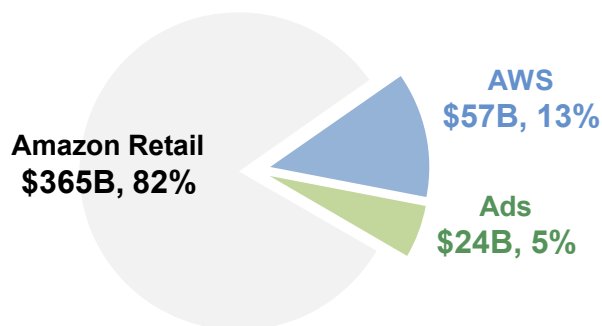
Key Themes in 2021

6 Mega Caps Search for Next Big Growth Drivers

Mega Caps Continue to Invest in Big L-T Opportunities as They Move Beyond Their Core

Amazon: AWS a Big Standalone Biz, & w/Ads Drives Vast Majority of Profit

Amazon 2021E Net Sales
\$446B, +17% FXN Y/Y



Source: J.P. Morgan estimates.

What We're Watching in 2021

Amazon Grocery

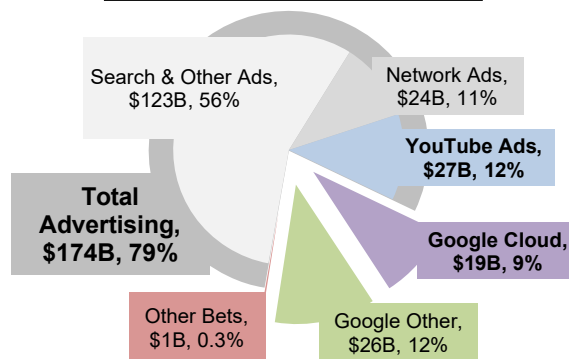
- Grocery = ~\$1T TAM in the US with 7% online penetration
- Amazon Fresh, Whole Foods, Amazon Go, Amazon Pantry

Amazon Pharmacy

- Prescription drug market = ~\$525B TAM in the US (including unfilled)
- Amazon Pharmacy, Prime Rx, Pillpack

Alphabet: Diversifying from Ads w/Cloud + Other > 20% of Revenue

Alphabet 2021E Gross Revenue
\$220B, +21% FXHN Y/Y



Source: Company reports & J.P. Morgan estimates

What We're Watching in 2021

Waymo

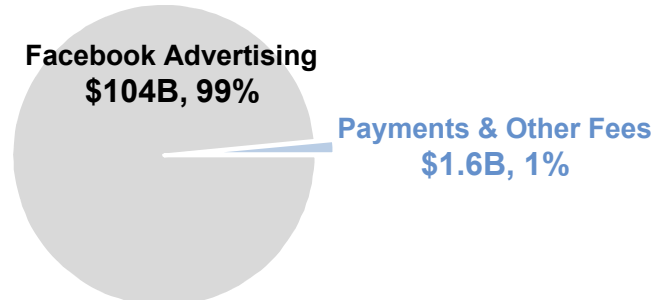
- TAM in trillions of dollars
- Commercialization opportunity across Waymo One, Waymo Via, local delivery, & personal vehicles

9 Products w/1B+ Monthly Users

- Search
- Maps
- Gmail
- Play
- Chrome
- YouTube (2B+ monthly logged in)
- Android (2.5B+ active devices WW)
- Google Drive (1B+ reached in '18)
- Google Photo (1B+ reached in '19)

Facebook: Adding More Commerce & Payments, but Early

Facebook 2021E Revenue
\$106B, +24% FXN Y/Y



Source: Company reports & J.P. Morgan estimates

What We're Watching in 2021

VR/AR (Oculus)

- Focused on reaching 10M+ active units on their VR platform
- Smart glasses in 2021

FB Family of Apps = 3.21B MAP

Core FB
2.74B MAUs

Instagram
1.0B+ MAUs

Messenger
1.3B+ MAUs

WhatsApp
2.0B+ MAUs

AMZN is the most diversified mega cap across revenue & profit

Key Themes in 2021

7 SMID-Caps More in Focus

SMID-Cap Themes & What We Think Is Best Positioned into 2021


E-commerce Sustainability

Farfetch (FTCH)

- **Tmall Luxury Pavilion store** launching in 1H
- **Brand e-concessions** ramping & >50% of supply
- **NGG** brands differentiate FTCH's platform
- JPM Rating & PT: Overweight, \$68 PT


Online Ad Recovery

Cardlytics (CDLX)

- **Self-serve** platform ramping
- **Restaurants and B&M** = >50% of revenue
- **Richer media ads** launching with US Bank in 1H
- JPM Rating & PT: Neutral, \$110 PT 


Value / Cyclical Recovery

J2 Global (JCOM)

- **RetailMeNot** drives accelerating DD % growth in '21
- Benefits from both **online ad & SMB recovery**
- **Attractive valuation** of ~7.5x 2022E EBITDA
- JPM Rating & PT: Overweight, \$120 PT 

Event Driven / Catalysts

IAC (IAC)

- **Vimeo spin** potentially as soon as 1H
- **M&A** with ~\$3B cash & \$0 debt
- **Care.com** potential increased financial disclosure
- JPM Rating & PT: Overweight, \$175 PT 

Note: SMID-cap defined as <\$25B market cap.

Internet Key Themes for 2021

8 Regulatory Focus Continues

Focus Names

GOOGL

AMZN

FB

TWTR

NFLX

UBER

LYFT

1 DOJ files GOOGL antitrust lawsuit

2 Ongoing investigations into AMZN

3 FTC & state/territory AGs FB antitrust lawsuits

4 CA passes Proposition 22

Canada Parliamentary committee report with mega-cap concerns; Competition Bureau launches AMZN antitrust investigation

5 EU AMZN antitrust charges & marketplace investigation

6 EU announces Digital Services & Digital Markets Acts

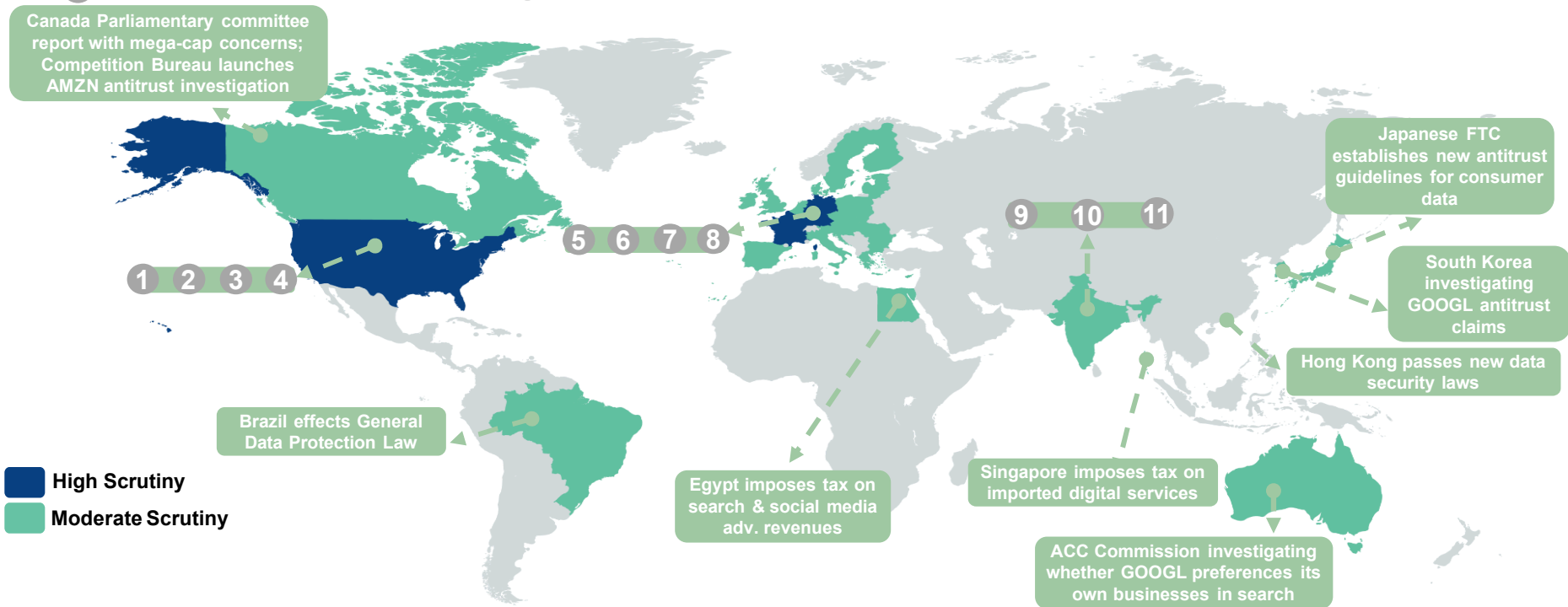
7 UK forms Digital Markets Unit

8 France & others impose digital services tax

9 India CCI investigating GOOGL payment system

10 Ministry of I&B granted streaming services jurisdiction

11 India introduces Personal Data Protection Bill



Risks to Watch in 2021

- GOOGL:** The DOJ filed a lawsuit in October claiming GOOGL monopolized online search & ad tech via exclusionary revenue-sharing agreements. Internationally, the Australian ACC Commission & the Competition Commission of India are investigating Google's search business.
- FB Antitrust Investigations:** The FTC & 48 State/Territory AGs filed 2 antitrust lawsuits in December targeting the anticompetitive nature of FB's API available to 3P developers & FB's acquisitions of Instagram & WhatsApp. Considering antitrust regulators approved these acquisitions, we view the chances of a breakup as low & believe FB is less exposed to antitrust sanctions than GOOGL & AMZN.
- AMZN:** The House Judiciary Subcommittee determined in October that AMZN wields monopoly power over its online marketplace's 3P sellers while the FTC & multiple State AGs previously opened an antitrust investigation into AMZN's online marketplace. Outside the U.S., the EU Competition Commission charged AMZN w/antitrust violations in November, claiming AMZN used 3P merchant data to benefit its 1P retail business & is investigating AMZN's vendor selection practices.
- Section 230:** In September, the DOJ submitted draft legislation to Congress focusing on reforming online censorship practices & accountability while the FCC stated in October it remains committed to restructuring Section 230 in the upcoming months. While there is interest here on both sides of the aisle, we don't think 230 ranks high in the Biden agenda.
- Risks of a Biden Presidency:** 1) **Taxes:** Biden has supported raising statutory corporate taxes from 21% to 28%, which would impact currently profitable internet companies more significantly than immature, growing firms; 2) **Antitrust & Section 230:** In prior interviews, Biden has mentioned his willingness to pull the necessary levers to combat anti-competitive practices & reform Section 230. 2) **FRO & Gig Economy:** The Biden Administration supports the Federal Protecting the Right to Organize (PRO) Act, meaning a national law similar to AB5, but Prop 22 passing in CA means chances are low.

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Best Ideas in 2021

- **Alphabet** (Overweight, \$2,050 PT)
- **Facebook** (Overweight, \$330 PT)
- **Twitter** (Overweight, \$65 PT)
- **Peloton** (Overweight, \$145 PT)
- **Lyft** (Overweight, \$64 PT)

Note: Price targets have a December 2021 end date.

Best Ideas in 2021

1 Alphabet (Overweight, \$2,050 PT)

Improving Top- & Bottom-Line Trajectory, Increased Disclosure, & Potential for Greater Buyback

Why We Think It Outperforms & Key Catalysts

- 1 Continued Search & YouTube recovery from the pandemic
- 2 Overall margins stabilizing w/upside potential...JPMe 22% '21E Alphabet GAAP Oper Income Margins
- 3 Google Cloud profit disclosure at 4Q, making SOTP more viable
- 4 Potential for greater capital returns, we expect bigger authorization in '21
- 5 Waymo progress toward commercialization across Waymo One & Waymo Via
- 6 Attractive valuation (~24x our '22E GAAP EPS & ~21.5x excl. Other Bets) with SOTP support

Where Do We Expect Pushback / Biggest Risks?

1) Finding Bigger Growth Beyond Ads; 2) Margin Trajectory Clarity; 3) Ongoing Regulatory Scrutiny

Key JPM 2021
Estimates

Alphabet
Gross Revenue:
+21% FXN
GAAP Operating Income Margins:
22% (+95bps Y/Y)
GAAP EPS:
\$61.67 (+18% Y/Y)

Search & Other
Revenue Growth:
+19% FXN

YouTube Ads
Revenue Growth:
+38% FXN

Google Cloud
Revenue Growth:
+43% FXN

Google Segment
GAAP Operating Income Margin:
25% (+70bps Y/Y)

Other Bets
Losses:
(\$5.5B)

Best Ideas in 2021

2 Facebook (Overweight, \$330 PT)

Strong Advertising Growth w/New Surfaces to Monetize in 2021; Attractive Valuation

Why We Think It Outperforms & Key Catalysts

- 1 Continued traction w/10M+ advertisers on the platform & 4M+ using Stories**
 - Ad revs poised to accelerate in 1H21 on favorable comps & FB-specific drivers
- 2 User metrics strong w/3.2B MAUs & 2.5B DAUs across FB Family, incl. solid growth for FB Blue**
- 3 Product focus & platform diversification: Stories, IG Explore, IG Shopping & Checkout, Reels, IGTV, FB Shops, FB Pay, FB News, FB Dating**
 - New surfaces to monetize in 2021: Reels & FB Shops/Checkout
- 4 Expect Opex guide of \$68-73B (27-36% growth) will come down**
- 5 Valuation compelling at ~21.5x 2022E GAAP EPS**

Where Do We Expect Pushback / Biggest Risks?

1) Ad targeting headwinds (IDFA/CCPA/GDPR, OS changes); 2) If users stall in US&C; 3) If e-commerce related ad & commission \$ don't materialize; 4) Anti-trust investigation

Key JPM FY21
Estimates

FXN Ad Revenue
Growth: +24%

Opex Growth:
+29%

Operating
Margins: 35.5%

GAAP EPS
Growth: +10%

Family MAP/DAP
Growth:
+8%/+8%

Best Ideas in 2021

3 Twitter (Overweight, \$65 PT)

Poised for Biggest Rebound in Online Ad Group, w/Multiple Company-Specific Drivers

Why We Think It Outperforms & Key Catalysts

- 1 Ad revenue should accelerate sharply w/easiest comps among Online Ad peers
 - Sports/events/launches (namely, Summer Olympics) additional catalysts
- 2 Solid engagement w/mDAUs of 187M, supported by product improvements (i.e., Topics, Lists, Fleets)
- 3 Revenue product shifted to #1 priority & impact felt through rebuilt Ad Server & MAP 2.0
 - Progress along DR roadmap should attract additional advertisers & drive auction density
- 4 Activist pressure should increase operational discipline & strengthen governance, while share buybacks also support the stock
- 5 Analyst Day in February presents potential catalyst

Where Do We Expect Pushback / Biggest Risks?

1) Mis-execution of DR roadmap; 2) If user growth slows w/o heavy news cycle; 3) If advertisers call brand safety into question

Key JPM FY21
Estimates



mDAU Growth:
+12%

FXN Ad Revenue
Growth: +26%

Total Revenue
Growth: +23%

GAAP Total Cost
& Expense
Growth: +19%

Adj. EBITDA
Margin: 31.1%

Best Ideas in 2021

4 Peloton (Overweight, \$145 PT)

Well Positioned Post COVID-19, with Home Fitness Here to Stay & Multiple Catalysts in 2021

Why We Think It Outperforms & Key Catalysts

- 1 We expect strong lower-priced Tread demand, which has a market opportunity ~2-3x that of the Bike**
 - Tread launches in 5 states on Feb 9 and across the US on March 30
- 2 Bike delivery times should improve with Tonic's Shin Ji facility opening in Dec 2020 (~1.5M units/yr)**
- 3 Significant growth runway with ~183M global gym members, which implies PTON is ~2% penetrated**
- 4 PTON has a Digital subscriber base of ~500k, with ~10%+ historically converting to CF Subs**
- 5 Certified pre-owned program potentially launching as soon as late 2021**
 - Further reduces entry price point (~\$1,000-1,250?) & expands current 20M SAM

Where Do We Expect Pushback / Biggest Risks?

1) Supply chain execution; 2) Sustainability as gyms re-open; 3) Valuation at ~7.5x 2022E revenue; & 4) Apple Fitness+ competition

**Key JPM FY21
Estimates**



**CF Net Adds:
1.083M**

**Revenue:
\$3,924M (+115%)**

**Gross Margin:
40.9%**

**EBITDA: \$326M
(8.3% margin)**

**CF Churn:
0.80%**

Note: FY21 ends 6/30/21

Best Ideas in 2021

5 Lyft (Overweight, \$64 PT)

Favorite Re-opening Trade w/Rides Returning & Cost Discipline Driving Profitability by 4Q21

Why We Think It Outperforms & Key Catalysts

- 1 We expect rideshare to come back strongly in 2H21
 - Expect majority of NA population to be vaccinated by 1H21, and shared & airport rides to come back
- 2 Expect Lyft to report EBITDA profit in 4Q21, at 3% lower revenue than in 4Q19
- 3 Lyft will likely raise L-T EBITDA margin guidance above 20% given its leaner cost structure
- 4 Regulatory challenges from other states less onerous post Prop 22 win
- 5 Diversifying Into Delivery
 - Lyft diversifying into B2B delivery could improve utilization of drivers and generate incremental \$

Where Do We Expect Pushback / Biggest Risks?

- 1) WFH/restrictions could persist still for several months; 2) Fewer L-T big bet opportunities than Uber; 3) Shares up 65% post-vaccine news w/Rides still down ~50% Y/Y

Key JPM FY21
Estimates



Active Riders:
20.3M (+50%)

R/AR:
\$183 (+10%)

Revenue:
\$3,338M (+41%)

Contribution:
\$1,829M (54.8%
margin)

EBITDA: (\$216M)
(-6.5% margin)

Agenda

1 Recap of 2020

2 Key Themes in 2021

3 Best Ideas in 2021

4 Appendix: Comps & Industry Models

JPM US Internet Comps

	MEGA CAP			LARGE CAP			LARGE CAP ADS			RIDESHARE		TRAVEL				IAC COMPLEX	
Company	Amazon	Alphabet	Facebook	Netflix	eBay	Spotify	Snap	Twitter	Pinterest	Uber	Lyft	Booking	Expedia	TripAdvisor	trivago	IAC	ANGI Homeservic
Symbol	AMZN	GOOGL	FB	NFLX	EBAY	SPOT	SNAP	TWTR	PINS	UBER	LYFT	BKNG	EXPE	TRIP	TRVG	IAC	ANGI
JP Morgan Rating	OW	OW	OW	OW	N	OW	OW	OW	OW	OW	OW	N	N	UW	UW	OW	OW
Price as of 12/15/2020	\$3,165.12	\$1,761.08	\$275.55	\$519.78	\$52.08	\$326.97	\$51.35	\$52.82	\$70.71	\$51.00	\$49.30	\$2,098.05	\$126.00	\$27.84	\$2.49	\$155.33	\$12.15
JP Morgan Price Target	\$4,100.00	\$2,050.00	\$330.00	\$628.00	\$55.00	\$350.00	\$60.00	\$65.00	\$82.00	\$63.00	\$64.00	\$1,850.00	\$110.00	\$22.00	-	\$175.00	\$14.00
%vs. Price Target	30%	16%	20%	21%	6%	7%	17%	23%	16%	24%	30%	-12%	-13%	-21%	-	13%	15%
Market Value	\$1,620,541	\$1,207,838	\$796,615	\$236,546	\$36,873	\$61,815	\$83,373	\$42,593	\$47,821	\$95,229	\$15,506	\$86,190	\$17,805	\$3,731	\$879	\$14,054	\$6,254
Enterprise Value	\$1,585,068	\$1,074,488	\$740,995	\$244,200	\$40,305	\$57,578	\$82,299	\$38,566	\$46,172	\$84,437	\$13,676	\$86,801	\$20,632	\$3,775	\$625	\$12,089	\$6,077
EARNINGS PER SHARE (GAAP EPS)																	
EPS 2020	\$33.90	\$52.10	\$9.71	\$6.24	\$7.31	(\$3.70)	(\$0.63)	(\$1.36)	(\$0.29)	(\$3.82)	(\$5.41)	(\$0.94)	(\$18.16)	(\$2.06)	(\$0.78)	(\$3.29)	(\$0.00)
EPS 2021	\$43.94	\$61.67	\$10.70	\$9.34	\$3.11	(\$3.33)	(\$0.31)	\$0.29	\$0.00	(\$1.19)	(\$3.14)	\$71.73	(\$0.07)	\$0.10	(\$0.02)	(\$2.02)	\$0.03
EPS 2022	\$60.31	\$73.25	\$12.70	\$12.57	\$3.70	(\$1.89)	\$0.01	\$0.40	\$0.16	(\$0.60)	(\$2.13)	\$102.94	\$4.05	\$0.63	\$0.04	(\$0.83)	\$0.15
'20 - '22 CAGR	33%	19%	14%	42%	-29%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P/E 2020	93.4x	33.8x	28.4x	83.3x	7.1x	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
P/E 2021	72.0x	28.6x	25.8x	55.6x	16.7x	NM	NM	NM	NM	NM	NM	29.2x	NM	NM	NM	NM	NM
P/E 2022	52.5x	24.0x	21.7x	41.4x	14.1x	NM	NM	NM	NM	NM	NM	20.4x	31.1x	44.3x	56.7x	NM	81.0x
P/E-to-Growth	1.6x	1.3x	1.5x	1.0x	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EARNINGS PER SHARE (Non-GAAP EPS) ⁽¹⁾																	
EPS 2020	\$52.77	\$65.50	\$11.06	NA	\$3.41	(\$2.63)	(\$0.07)	(\$0.82)	\$0.37	(\$2.83)	NA	\$0.20	(\$7.09)	(\$1.10)	(\$0.08)	NA	\$0.18
EPS 2021	\$66.16	\$80.91	\$13.12	NA	\$3.98	(\$2.13)	\$0.21	\$0.71	\$0.62	(\$0.64)	NA	\$79.00	\$1.60	\$0.68	\$0.03	NA	\$0.18
EPS 2022	\$85.99	\$96.44	\$15.61	NA	\$4.62	(\$0.59)	\$0.52	\$0.83	\$0.86	\$0.02	NA	\$107.55	\$5.67	\$1.30	\$0.09	NA	\$0.31
'20 - '22 CAGR	28%	21%	19%	NA	17%	NA	NA	NA	53%	NA	NA	2223%	NA	NA	NA	NA	29%
P/E 2020	60.0x	26.9x	24.9x	NA	15.3x	NM	NM	NM	NM	NM	NA	NM	NM	NM	NM	NA	65.8x
P/E 2021	47.8x	21.8x	21.0x	NA	13.1x	NM	NM	74.3x	NM	NM	NA	26.6x	78.8x	41.2x	92.8x	NA	66.1x
P/E 2022	36.8x	18.3x	17.6x	NA	11.3x	NM	98.9x	63.9x	82.0x	NM	NA	19.5x	22.2x	21.4x	27.2x	NA	39.3x
P/E-to-Growth	1.3x	0.9x	0.9x	NA	0.7x	NA	NA	NA	1.5x	NA	NA	0.0x	NA	NA	NA	NA	1.3x
FREE CASH FLOW																	
FCF 2020	\$26,920	\$39,372	\$24,050	\$2,019	\$2,549	\$179	(\$59)	\$96	\$87	(\$3,623)	(\$1,346)	\$368	(\$4,030)	(\$332)	(\$254)	\$138	\$146
FCF 2021	\$43,998	\$50,051	\$24,704	(\$417)	\$2,844	\$529	\$154	\$633	\$361	(\$1,858)	(\$160)	\$3,365	\$1,648	\$208	\$13	\$126	\$148
FCF 2022	\$55,327	\$56,066	\$31,570	\$891	\$3,196	\$750	\$564	\$906	\$535	(\$99)	\$268	\$4,900	\$1,565	\$276	\$39	\$250	\$197
'20-'22 FCF CAGR	43%	19%	15%	-34%	12%	105%	NA	207%	148%	NA	NA	265%	NA	NA	NA	34%	16%
EV/FCF 2020	58.3x	27.2x	30.3x	NM	16.0x	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	84.1x	41.1x
EV/FCF 2021	35.5x	21.0x	29.2x	NM	9.8x	NM	NM	60.5x	NM	NM	NM	25.0x	12.8x	18.4x	48.2x	98.0x	40.4x
EV/FCF 2022	27.9x	18.1x	22.3x	NM	6.5x	79.3x	NM	42.3x	89.0x	NM	53.9x	16.4x	13.0x	13.1x	16.4x	49.9x	29.8x
FCF Yield 2020	1.7%	3.3%	3.0%	0.9%	6.9%	0.3%	NM	0.2%	0.2%	NM	NM	0.4%	NM	NM	NM	1.0%	2.3%
FCF Yield 2021	2.7%	4.1%	3.1%	NM	7.7%	0.9%	0.2%	1.5%	0.8%	NM	NM	3.9%	9.3%	5.6%	1.5%	0.9%	2.4%
FCF Yield 2022	3.4%	4.6%	4.0%	0.4%	8.7%	1.2%	0.7%	2.1%	1.1%	NM	1.7%	5.7%	8.8%	7.4%	4.4%	1.8%	3.1%
EBITDA																	
EBITDA 2020	\$54,604	\$65,014	\$45,109	\$5,050	\$3,785	(\$10)	\$32	\$1,068	\$253	(\$2,516)	(\$796)	\$860	(\$214)	(\$35)	(\$22)	\$72	\$166
EBITDA 2021	\$70,830	\$80,379	\$54,494	\$6,433	\$4,050	\$246	\$470	\$1,394	\$450	(\$218)	(\$216)	\$4,433	\$1,494	\$251	\$26	\$161	\$200
EBITDA 2022	\$87,371	\$93,487	\$64,903	\$8,476	\$4,346	\$545	\$989	\$1,597	\$667	\$1,036	\$198	\$5,873	\$2,204	\$381	\$62	\$311	\$289
'20-'22 EBITDA CAGR	26%	20%	20%	30%	7%	NA	457%	22%	62%	NA	NA	161%	NA	NA	NA	108%	32%
EV/EBITDA 2020	28.8x	16.5x	16.2x	48.3x	10.8x	NM	NM	35.7x	NM	NM	NM	NM	NM	NM	NM	NM	36.2x
EV/EBITDA 2021	22.1x	13.1x	13.2x	38.3x	6.9x	NM	NM	27.5x	NM	NM	NM	19.0x	14.1x	15.2x	24.3x	76.5x	29.8x
EV/EBITDA 2022	17.7x	10.8x	10.9x	29.3x	4.8x	NM	85.7x	24.0x	71.4x	90.9x	72.9x	13.7x	9.2x	9.5x	10.2x	40.1x	20.3x
REVENUE																	
Revenue 2020	\$380,049	\$148,208	\$84,439	\$24,930	\$10,110	\$8,980	\$2,445	\$3,632	\$1,632	\$11,155	\$2,368	\$6,741	\$5,505	\$589	\$275	\$2,966	\$1,462
Revenue 2021	\$446,084	\$182,263	\$105,812	\$29,833	\$11,167	\$11,696	\$3,530	\$4,481	\$2,288	\$16,680	\$3,338	\$11,657	\$8,788	\$956	\$577	\$3,294	\$1,641
Revenue 2022	\$521,697	\$209,694	\$125,371	\$34,577	\$12,134	\$14,382	\$4,547	\$5,039	\$2,906	\$21,402	\$4,578	\$13,999	\$10,346	\$1,218	\$679	\$3,724	\$1,928
'20-'22 Revenue CAGR	17%	19%	22%	18%	10%	27%	36%	18%	33%	39%	39%	44%	37%	44%	57%	12%	15%
EV/Revenue 2020	4.1x	7.2x	8.6x	9.8x	4.0x	6.4x	33.5x	10.5x	26.2x	7.7x	5.7x	12.9x	3.8x	6.7x	2.3x	3.9x	4.1x
EV/Revenue 2021	3.5x	5.8x	6.8x	8.3x	2.5x	5.0x	23.7x	8.6x	20.4x	5.5x	4.3x	7.2x	2.4x	4.0x	1.1x	3.7x	3.6x
EV/Revenue 2022	3.0x	4.8x	5.6x	7.2x	1.7x	4.1x	18.6x	7.6x	16.4x	4.4x	3.2x	5.7x	2.0x	3.0x	0.9x	3.4x	3.0x

Source: Bloomberg Finance L.P., company reports & J.P. Morgan estimates
Notes: SMM except per share; Non-GAAP EPS shown excludes the impact of stock based compensation except for BKNG & SFIX, & Adj. EBITDA shown excludes SBC except for BKNG. End date for all P/Ts is Dec2

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JPM US Internet Comps (con't)

	SMID CAP																
	SUBS/DEVICES			ECOMMERCE				LOCAL			ADVERTISING			MARKETPLACES			
Company	Match	Peloton	Chegg	Chewy	GoodRx	Farfetch	Stitch Fix	Frontdoor	Yelp	Groupon	J2 Global	Cardlytics	Criteo	Fiverr	MediaAlpha	EverQuote	Eventbrite
Symbol	MTCH	PTON	CHGG	CHWY	GDRX	FTCH	SFIX	FTDR	YELP	GRPN	JCOM	CDLX	CRTO	FVRR	MAX	EVER	EB
JP Morgan Rating	N	OW	N	OW	UW	OW	N	OW	N	UW	OW	N	UW	N	N	OW	N
Price as of 12/15/2020	\$150.84	\$127.78	\$85.66	\$91.13	\$43.03	\$58.70	\$64.30	\$49.98	\$28.70	\$36.36	\$99.89	\$133.16	\$18.90	\$205.85	\$34.35	\$35.60	\$18.71
JP Morgan Price Target	\$130.00	\$145.00	\$82.00	\$97.00	\$29.00	\$68.00	\$39.00	\$57.00	\$26.00	\$23.00	\$120.00	\$110.00	\$15.00	\$155.00	\$39.00	\$48.00	\$15.00
%vs. Price Target	-14%	13%	-4%	6%	-33%	16%	-39%	14%	-9%	-37%	20%	-17%	-21%	-25%	14%	35%	-20%
Market Value	\$43,736	\$43,714	\$11,922	\$37,296	\$18,288	\$20,204	\$7,039	\$4,278	\$2,110	\$1,070	\$4,739	\$3,893	\$1,153	\$7,908	\$2,216	\$1,081	\$1,997
Enterprise Value	\$46,858	\$41,691	\$11,687	\$36,790	\$17,906	\$19,916	\$6,839	\$4,879	\$1,519	\$717	\$5,490	\$3,830	\$727	\$7,737	\$2,409	\$1,035	\$1,655
EARNINGS PER SHARE (GAAP EPS)																	
EPS 2020	\$0.50	\$0.35	(\$0.10)	(\$0.36)	(\$1.07)	(\$3.48)	(\$0.51)	\$1.33	(\$0.55)	(\$12.00)	\$3.84	(\$2.24)	\$1.06	(\$0.19)	\$0.19	(\$0.44)	(\$2.70)
EPS 2021	\$2.05	\$0.31	\$0.63	(\$0.17)	\$0.04	(\$1.29)	(\$0.25)	\$1.67	(\$0.22)	(\$3.21)	\$5.11	(\$1.26)	\$1.42	\$0.10	\$0.06	(\$0.43)	(\$1.30)
EPS 2022	\$2.44	\$0.68	\$0.73	\$0.18	\$0.22	(\$1.03)	(\$0.00)	\$2.00	\$0.14	\$0.25	\$5.72	(\$0.80)	\$1.44	\$0.37	\$0.36	\$0.26	(\$0.29)
'20 - '22 CAGR	121%	39%	NA	NA	NA	NA	NA	22%	NA	NA	22%	NA	17%	NA	36%	NA	NA
P/E 2020	NM	NM	NM	NM	NM	NM	NM	37.5x	NM	NM	26.0x	NM	17.9x	NM	NM	NM	NM
P/E 2021	73.5x	NM	NM	NM	NM	NM	NM	29.9x	NM	NM	19.5x	NM	13.3x	NM	NM	NM	NM
P/E 2022	61.9x	NM	NM	NM	NM	NM	NM	25.0x	NM	NM	17.5x	NM	13.1x	NM	96.6x	NM	NM
P/E-to-Growth	0.5x	NA	NA	NA	NA	NA	NA	1.1x	NA	NA	0.8x	NA	0.8x	NA	2.7x	NA	NA
EARNINGS PER SHARE (Non-GAAP EPS) (1)																	
EPS 2020	NA	NA	\$1.27	NA	\$0.32	NA	(\$0.51)	\$1.51	\$0.87	(\$2.82)	\$7.94	(\$0.81)	\$1.95	\$0.29	NA	\$0.46	(\$2.26)
EPS 2021	NA	NA	\$2.04	NA	\$0.30	NA	(\$0.25)	\$1.75	\$1.22	(\$0.93)	\$9.00	\$0.15	\$2.06	\$0.61	NA	\$0.66	(\$0.96)
EPS 2022	NA	NA	\$2.19	NA	\$0.40	NA	(\$0.00)	\$2.09	\$1.57	\$1.61	\$9.57	\$0.51	\$2.07	\$0.95	NA	\$0.99	(\$0.02)
'20 - '22 CAGR	NA	NA	31%	NA	12%	NA	NA	18%	34%	NA	10%	NA	3%	81%	NA	46%	NA
P/E 2020	NA	NA	67.3x	NA	NM	NA	NM	33.1x	32.9x	NM	12.6x	NM	9.7x	NM	NA	77.3x	NM
P/E 2021	NA	NA	42.0x	NA	NM	NA	NM	28.5x	23.6x	NM	11.1x	NM	9.2x	NM	NA	NM	NM
P/E 2022	NA	NA	39.2x	NA	NM	NA	NM	24.0x	18.3x	22.6x	10.4x	NM	9.1x	NM	NA	36.1x	NM
P/E-to-Growth	NA	NA	1.3x	NA	NA	NA	NA	1.4x	0.5x	NA	1.1x	NA	2.9x	NA	NA	0.8x	NA
FREE CASH FLOW																	
FCF 2020	\$680	\$560	\$82	\$12	\$159	(\$59)	(\$4)	\$133	\$95	(\$214)	\$405	(\$10)	\$107	\$20	\$53	(\$15)	(\$199)
FCF 2021	\$745	\$247	\$245	\$174	\$187	\$1	\$24	\$165	\$109	\$59	\$444	\$7	\$146	\$31	\$67	(\$1)	(\$55)
FCF 2022	\$886	\$584	\$296	\$338	\$251	\$87	\$117	\$206	\$134	\$116	\$476	\$23	\$144	\$47	\$75	\$5	\$97
'20-'22 FCF CAGR	14%	2%	90%	435%	26%	NA	NA	24%	18%	NA	8%	NA	16%	52%	19%	NA	NA
EV/FCF 2020	58.0x	75.1x	NM	NM	NM	NM	NM	36.5x	15.9x	NM	14.4x	NM	6.8x	NM	43.9x	NM	NM
EV/FCF 2021	63.1x	NM	47.7x	NM	97.4x	NM	NM	29.1x	14.0x	12.2x	12.7x	NM	4.2x	NM	35.0x	NM	NM
EV/FCF 2022	53.1x	74.2x	39.4x	NM	74.2x	NM	60.6x	22.8x	11.2x	5.5x	11.3x	NM	3.5x	NM	32.3x	NM	21.7x
FCF Yield 2020	1.6%	1.3%	0.7%	0.0%	0.9%	NM	NM	3.1%	4.5%	NM	8.5%	NM	9.3%	0.3%	2.4%	NM	NM
FCF Yield 2021	1.7%	0.6%	2.1%	0.5%	1.0%	0.0%	0.3%	3.9%	5.2%	5.5%	9.4%	0.2%	12.7%	0.4%	3.0%	NM	NM
FCF Yield 2022	2.0%	1.3%	2.5%	0.9%	1.4%	0.4%	1.7%	4.8%	6.3%	10.8%	10.0%	0.6%	12.5%	0.6%	3.4%	0.4%	4.8%
EBITDA																	
EBITDA 2020	\$894	\$359	\$203	\$28	\$197	(\$46)	\$45	\$266	\$121	\$31	\$601	(\$8)	\$232	\$9	\$55	\$18	(\$148)
EBITDA 2021	\$1,060	\$349	\$262	\$170	\$212	\$60	\$83	\$308	\$151	\$79	\$681	\$23	\$249	\$25	\$62	\$25	(\$33)
EBITDA 2022	\$1,246	\$601	\$330	\$367	\$284	\$151	\$158	\$355	\$187	\$145	\$726	\$36	\$257	\$45	\$92	\$39	\$57
'20-'22 EBITDA CAGR	18%	29%	27%	260%	20%	NA	88%	15%	24%	118%	10%	NA	5%	119%	29%	49%	NA
EV/EBITDA 2020	44.1x	NM	56.1x	NM	91.0x	NM	NM	18.3x	12.5x	24.6x	9.7x	NM	3.1x	NM	42.4x	59.1x	NM
EV/EBITDA 2021	44.4x	NM	44.7x	NM	86.2x	NM	84.9x	15.6x	10.1x	9.1x	8.3x	NM	2.5x	NM	37.9x	43.7x	NM
EV/EBITDA 2022	37.8x	72.1x	35.3x	NM	65.6x	NM	45.2x	13.2x	8.0x	4.4x	7.4x	NM	2.0x	NM	26.4x	29.1x	36.9x
REVENUE																	
Revenue 2020	\$2,388	\$2,894	\$630	\$7,056	\$543	\$1,429	\$1,886	\$1,472	\$867	\$1,351	\$1,457	\$183	\$801	\$189	\$559	\$341.0	\$117
Revenue 2021	\$2,793	\$4,537	\$780	\$8,723	\$698	\$1,748	\$2,271	\$1,620	\$946	\$863	\$1,651	\$293	\$849	\$244	\$713	\$415	\$221
Revenue 2022	\$3,202	\$5,966	\$937	\$10,495	\$875	\$2,084	\$2,666	\$1,774	\$1,041	\$907	\$1,749	\$362	\$857	\$306	\$899	\$484	\$319
'20-'22 Revenue CAGR	16%	44%	22%	22%	27%	21%	19%	10%	10%	-18%	10%	41%	3%	27%	27%	19%	66%
EV/Revenue 2020	16.5x	14.5x	18.1x	5.2x	32.9x	13.4x	3.6x	3.3x	1.8x	0.6x	4.0x	20.8x	0.9x	38.1x	4.2x	3.0x	15.9x
EV/Revenue 2021	16.8x	9.4x	15.0x	4.2x	26.1x	11.1x	3.1x	3.0x	1.6x	0.8x	3.4x	13.2x	0.7x	32.9x	3.3x	2.6x	9.2x
EV/Revenue 2022	14.7x	7.3x	12.5x	3.5x	21.3x	9.6x	2.7x	2.6x	1.4x	0.7x	3.1x	10.9x	0.6x	27.2x	2.7x	2.4x	6.6x

Source: Bloomberg Finance L.P., company reports & J.P. Morgan estimates

Notes: SMM except per share; Non-GAAP EPS shown excludes the impact of stock based compensation except for BKNG & SFIX; & Adj. EBITDA shown excludes SBC except for BKNG. End date for all P/Ts is Dec21

JPM US E-commerce Model, 2018A-2022E

	2018A	1Q19A	2Q19A	3Q19A	4Q19A	2019A	1Q20A	2Q20A	3Q20A	4Q20E	2020E	2021E	2022E
US Retail Sales													
Retail Sales*	5,269,468	1,237,688	1,377,667	1,376,996	1,459,855	5,452,206	1,273,055	1,332,066	1,472,165	1,540,147	5,617,433	5,785,956	5,959,535
Y/Y Growth	4.3%	1.7%	3.5%	4.4%	4.1%	3.5%	2.9%	-3.3%	6.9%	5.5%	3.0%	3.0%	3.0%
Q/Q Growth		-11.7%	11.3%	0.0%	6.0%		-12.8%	4.6%	10.5%	4.6%			
Adjusted Retail Sales*	3,666,092	863,124	949,362	945,795	1,050,751	3,809,032	912,444	969,606	1,038,791	1,117,530	4,038,371	4,159,522	4,284,308
Y/Y Growth	4.4%	2.6%	4.0%	4.7%	4.2%	3.9%	5.7%	2.1%	9.8%	5.5%	6.0%	3.0%	3.0%
Q/Q Growth		-14.4%	10.0%	-0.4%	11.1%		-13.2%	6.3%	7.1%	7.6%			
% of Total Retail	69.6%	69.7%	68.9%	68.7%	72.0%	69.9%	71.7%	72.8%	70.6%	72.6%	71.9%	71.9%	71.9%
US E-commerce Sales													
E-commerce Sales	519,635	127,888	138,956	145,474	185,700	598,018	146,539	200,646	199,439	242,203	788,827	872,805	1,003,955
Y/Y Growth	13.2%	11.5%	13.9%	18.0%	16.3%	15.1%	14.6%	44.4%	37.1%	30.4%	31.9%	10.6%	15.0%
Q/Q Growth		-19.9%	8.7%	4.7%	27.7%		-21.1%	36.9%	-0.6%	21.4%			
E-commerce as % of Adj Retail	14.2%	14.8%	14.6%	15.4%	17.7%	15.7%	16.1%	20.7%	19.2%	21.7%	19.5%	21.0%	23.4%
Y/Y Chg (bp)	111 bp	118 bp	128 bp	172 bp	185 bp	153 bp	124 bp	606 bp	382 bp	400 bp	383 bp	145 bp	245 bp
E-commerce as % of Retail	9.9%	10.3%	10.1%	10.6%	12.7%	11.0%	11.5%	15.1%	13.5%	15.7%	14.0%	15.1%	16.8%
Y/Y Chg (bp)	78 bp	91 bp	92 bp	121 bp	133 bp	111 bp	118 bp	498 bp	298 bp	301 bp	307 bp	104 bp	176 bp
US M-commerce Sales													
Mobile Estimate	142,823	36,132	39,600	45,918	58,869	180,518	47,260	61,471	66,007	80,654	255,391	301,118	373,973
as % of Total E-commerce	27.5%	28.3%	28.5%	31.6%	31.7%	30.2%	32.3%	30.6%	33.1%	33.3%	32.4%	34.5%	37.3%
Y/Y growth	34.5%	25.0%	21.7%	30.3%	27.6%	26.4%	30.8%	55.2%	43.7%	37.0%	41.5%	17.9%	24.2%
Desktop Estimate	376,812	91,756	99,356	99,556	126,831	417,500	99,279	139,175	133,432	161,550	533,436	571,687	629,982
as % of Total E-commerce	72.5%	71.7%	71.5%	68.4%	68.3%	69.8%	67.7%	69.4%	66.9%	66.7%	67.6%	65.5%	62.8%
Y/Y growth	6.8%	7.0%	11.1%	13.0%	11.7%	10.8%	8.2%	40.1%	34.0%	27.4%	27.8%	7.2%	10.2%
Amazon													
US GMV ex-Physical Stores**	169,342	42,152	46,007	51,243	67,012	206,414	55,122	70,174	76,064	97,956	299,316	351,838	413,463
Y/Y Growth	20.1%	16.6%	20.6%	24.8%	24.1%	21.9%	30.8%	52.5%	48.4%	46.2%	45.0%	17.5%	17.5%
Q/Q Growth		-21.9%	9.1%	11.4%	30.8%		-17.7%	27.3%	8.4%	28.8%			
% of E-commerce	32.6%	33.0%	33.1%	35.2%	36.1%	34.5%	37.6%	35.0%	38.1%	40.4%	37.9%	40.3%	41.2%
Y/Y Chg (bp)	187 bp	145 bp	183 bp	193 bp	227 bp	193 bp	466 bp	186 bp	291 bp	436 bp	343 bp	237 bp	87 bp
% of Adj Retail Sales***	5.1%	5.4%	5.3%	5.9%	6.8%	5.9%	6.6%	7.6%	7.7%	9.1%	7.8%	8.9%	10.1%
Y/Y Chg (bp)	92 bp	57 bp	64 bp	84 bp	100 bp	78 bp	116 bp	232 bp	183 bp	234 bp	194 bp	106 bp	119 bp

Source: All projections are J.P. Morgan estimates, historic US retail & e-commerce sales numbers are from the US Department of Commerce.

Notes: *Retail Sales excludes food services & drinking places and Adjusted Retail Sales also excludes automobile & other motor vehicle dealers and gasoline stations; **We assume the US represents 90% of Amazon's North America GMV;

***AMZN as a % of Adjusted Retail Sales includes Physical Stores (Whole Foods) GMV

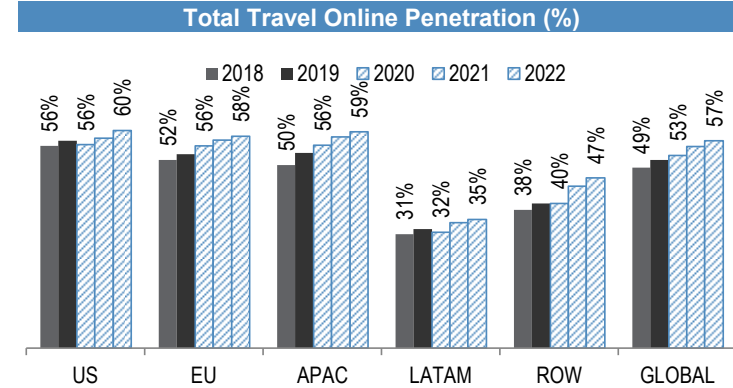
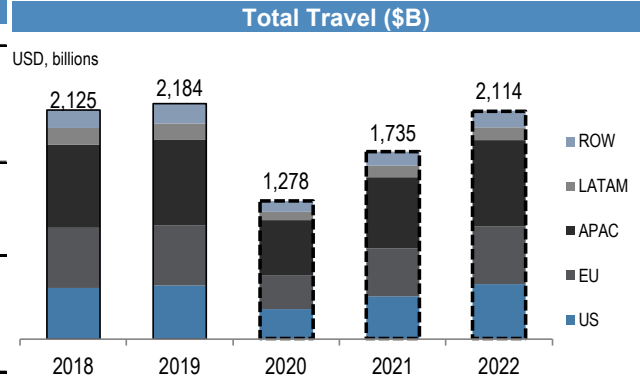
US Online Ad Model

\$ in millions	2010A*	2011A	2012A	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020E	2021E
By Platform												
Desktop												
Desktop Search	11,666	14,757	16,915	18,490	18,940	20,486	17,782	18,536	18,032	18,162	17,607	18,487
Y/Y growth		26.5%	14.6%	9.3%	2.4%	8.2%	-13.2%	4.2%	-2.7%	0.7%	-3.1%	5.0%
Desktop Banner	8,229	9,235	9,699	10,024	10,145	9,689	8,717	9,077	8,640	7,804	7,935	8,689
Y/Y growth		12.2%	5.0%	3.3%	1.2%	-4.5%	-10.0%	4.1%	-4.8%	-9.7%	1.7%	9.5%
Desktop Video	1,406	1,809	2,304	2,819	3,338	4,169	4,940	5,618	6,011	6,949	7,976	9,052
Y/Y growth		29%	27%	22%	18%	25%	18%	14%	7%	16%	15%	13.5%
Desktop Other	4,088	4,348	4,308	4,175	4,666	4,365	4,518	4,988	4,884	5,007	4,316	4,819
Y/Y growth		6.3%	-0.9%	-3.1%	11.7%	-6.4%	3.5%	10.4%	-2.1%	2.5%	-13.8%	11.6%
Total Desktop	25,390	30,149	33,226	35,508	37,088	38,708	35,957	38,219	37,567	37,922	37,834	41,047
Y/Y growth		18.7%	10.2%	6.9%	4.4%	4.4%	-7.1%	6.3%	-1.7%	0.9%	-0.2%	8.5%
% of total Online Advertising	97.5%	95.0%	90.9%	83.0%	75.0%	65.0%	49.5%	43.3%	35.0%	30.4%	27.5%	24.9%
Mobile												
Mobile Search					5,934	9,171	16,793	22,064	30,368	36,515	40,178	49,017
Y/Y growth					NA	54.5%	83.1%	31.4%	37.6%	20.2%	10.0%	22.0%
Mobile Banner						9,379	13,571	18,423	24,860	30,321	34,546	42,491
Y/Y growth						NA	44.7%	35.8%	34.9%	22.0%	13.9%	23.0%
Mobile Video						1,667	3,986	6,282	10,289	14,771	19,342	26,111
Y/Y growth						NA	139.1%	57.6%	63.8%	43.6%	30.9%	35.0%
Mobile Other					371	625	2,333	3,278	4,403	5,085	5,474	6,181
Y/Y growth					NA	68.6%	273.1%	40.5%	34.3%	15.5%	7.7%	12.9%
Total Mobile	651	1,587	3,346	7,273	12,363	20,843	36,683	50,047	69,920	86,691	99,539	123,801
Y/Y growth		143.7%	110.9%	117.3%	70.0%	68.6%	76.0%	36.4%	39.7%	24.0%	14.8%	24.4%
% of total Online Advertising	2.5%	5.0%	9.2%	17.0%	25.0%	35.0%	50.5%	56.7%	65.1%	69.6%	72.5%	75.1%
Total Online Advertising	\$26,041	\$31,736	\$36,572	\$42,781	\$49,451	\$59,551	\$72,640	\$88,266	\$107,487	\$124,613	\$137,373	\$164,848
% Y/Y growth	14.9%	22%	15.2%	17.0%	15.6%	20.4%	22.0%	21.5%	21.8%	15.9%	10.2%	20.0%
Online as % of Total US Advertising	15.2%	18.2%	20.4%	23.5%	26.4%	31.1%	35.7%	42.8%	48.0%	54.0%	61.7%	66.1%
Y/Y change (bps)	137	301	220	309	287	473	460	706	522	598	768	441
Total US Advertising	\$170,944	\$173,944	\$178,868	\$181,791	\$187,277	\$191,240	\$203,242	\$206,249	\$223,855	\$230,789	\$222,746	\$249,476
%Y/Y growth	4.6%	2%	2.8%	1.6%	3.0%	2.1%	6.3%	1.5%	8.5%	3.1%	-3.5%	12.0%
Seasonality												
By Format												
Search	11,666	14,757	16,915	18,490	24,874	29,656	34,575	40,600	48,400	54,700	57,785	67,504
Y/Y growth	NA	26%	15%	9%	35%	19%	17%	17%	19%	13%	6%	17%
Banner						19,068	22,288	27,500	33,500	38,100	42,481	51,180
Y/Y growth						NA	17%	23%	22%	14%	11%	20%
Video						5,836	8,926	11,900	16,300	21,719	27,317	35,164
Y/Y growth						NA	53%	33%	37%	33%	26%	29%
Others (classified, lead gen, Audio...)	4,088	4,348	4,308	4,175	5,037	4,990	6,851	8,266	9,287	10,113	9,790	11,000
Y/Y growth	NA	6%	-1%	-3%	21%	-1%	37%	21%	12%	9%	-3%	12%

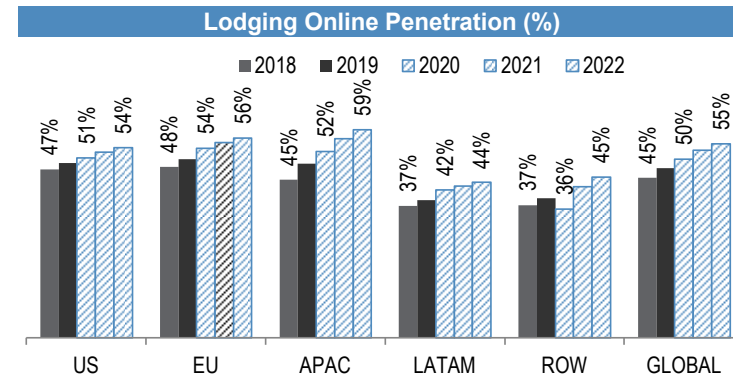
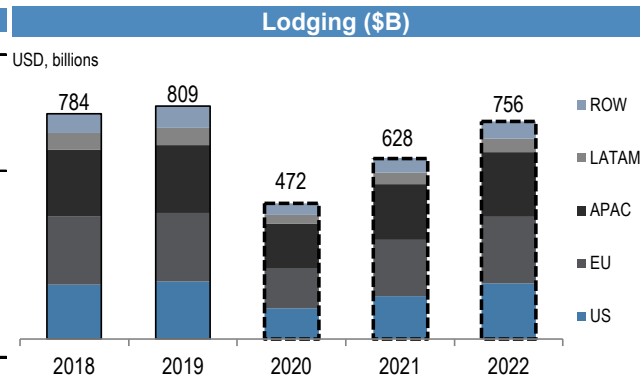
Source: IAB, Magna Global, J.P. Morgan estimates. * Note: Breakout of Mobile Advertising begins in 2010. Mobile includes Search & Display, Mobile Display includes: banner ads, digital video, digital audio, sponsorships, and rich media advertising served to mobile devices

Global Online Travel Model

TOTAL TRAVEL					
(USD, billions)	2018	2019	2020	2021	2022
US	472.5	497.5	278.0	393.9	505.8
EU	558.2	555.9	314.6	445.6	534.9
APAC	772.7	793.1	506.5	663.5	804.2
LATAM	152.0	154.5	81.5	103.2	117.9
ROW	169.1	183.1	97.6	128.6	151.1
GLOBAL	2,124.5	2,184.1	1,278.2	1,734.8	2,113.9
Y/Y Growth	14.6%	2.8%	-41.5%	35.7%	21.9%
Online Penetration					
	2018	2019	2020	2021	2022
US	56%	57%	56%	58%	60%
EU	52%	53%	56%	57%	58%
APAC	50%	54%	56%	58%	59%
LATAM	31%	33%	32%	34%	35%
ROW	38%	40%	40%	44%	47%
GLOBAL	49%	52%	53%	55%	57%

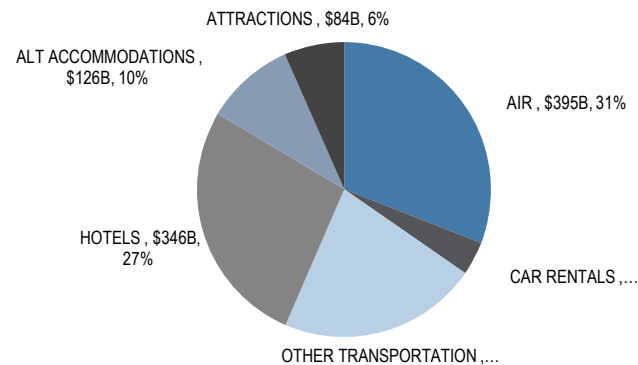


TOTAL LODGING					
(USD, billions)	2018	2019	2020	2021	2022
US	188.9	199.5	107.5	149.5	194.2
EU	239.4	238.3	139.6	194.2	229.4
APAC	229.6	235.6	154.3	193.4	226.6
LATAM	57.6	59.8	31.4	40.2	45.7
ROW	68.2	75.5	39.1	51.0	59.7
GLOBAL	783.7	808.7	471.9	628.3	756.6
Online Penetration					
	2018	2019	2020	2021	2022
US	47%	49%	51%	52%	54%
EU	48%	50%	54%	55%	56%
APAC	45%	49%	52%	56%	59%
LATAM	37%	39%	42%	43%	44%
ROW	37%	39%	36%	43%	45%
GLOBAL	45%	48%	50%	53%	55%

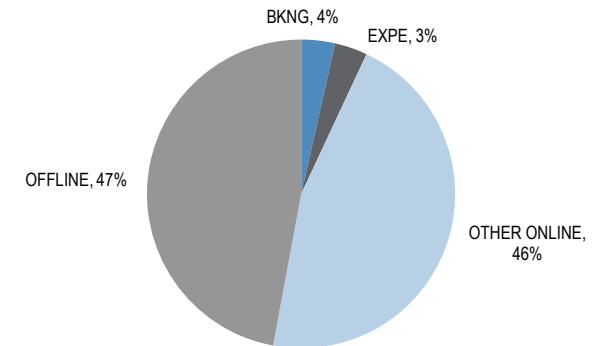


2020E TOTAL TRAVEL SHARES		
By Vertical	USD, B	% of total
AIR	\$395B	31%
CAR RENTALS	\$48B	4%
OTHER TRANSPORTATION	\$280B	22%
HOTELS	\$346B	27%
ALT ACCOMMODATIONS	\$126B	10%
ATTRACTIONS	\$84B	7%
TOTAL	\$1,278B	100%

2020E Total Travel By Vertical (\$B)



2020E Total Travel Share (% of Total)



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