

TMT+: The Festive Version

Jack Atherton
+1 212 622 2765
jack.atherton@jpmorgan.com

I'll be out of the office for the rest of this year and I wanted to wish a very Merry Christmas to those celebrating and Happy Holidays to everyone. Below you'll find a list of key themes I'll be watching and top ideas for next year (plus recap of 2021 ideas), as well as favourite quotes and charts from this year, TMT Research year-ahead presentations, and YTD movers & shakers.

I hope everyone gets some much needed time off with friends and family – and please continue to stay safe! I look forward to catching up with everyone next year.

Best wishes, Jack

Use the links below to jump straight to each section:

[Themes and Predictions for Next Year](#)

[Ideas for Next Week](#)

[Quotes of the Week](#)

[Charts of the Week](#)

[Movers and Shakers](#)

[Research Highlights](#)

[TMT Calendar](#)

[Key Pan-European Calls & Research](#)

Themes and Predictions for Next Year

1. **Metaverse:** This has been a big buzz word through the back end of this year, led by Zuckerberg announcing his aspirations. Corporate focus thus far has been around customer acquisition and tech build out. I would bucket the longer term opportunity into 2 categories: **1) Digital Asset (NFTs) Sales & Trading** which should see another big year of growth in 2022. NFTs historically have been art focused but wider adoption next year will be led by gaming alongside other businesses / industries. Zuckerberg said that over the next decade the metaverse will reach 1B people and host “hundreds of billions of dollars of commerce”. **2) Advertising:** Every consumer brand / retailer has needed to embrace a social media strategy over the past decade; as Roblox said at their investor day: “in the next 3-5yrs, every brand will have a Roblox strategy” (e.g. NIKELAND).
2. **Crypto/Web3:** Not an easy theme to summarise and it will be remarkably intertwined with metaverse developments in coming years. At our crypto conference on 11/30 we learnt: 1) a generally more upbeat note on the US regulatory environment for crypto, 2) all developers had the view that bitcoin is here to stay and most thought multiple layer 1 protocols could co-exist for different purposes and projects, 3) initial NFT use cases are going to remain centered around art, gaming, music and video (i.e. retail uses) but all same infrastructure can be extended to the financial world; several experts called out real estate as the most likely first financial application of NFTs. The digital assets are a whole new asset class that will continue to increase in relevance next year; I expect increasing institutional dollars and mind share allocation. Doug has a good slide on this theme in his year ahead presentation that is worth checking out; Alexopoulos also wrote a great [De-Fi deep dive](#) if you need some xmas reading material.
3. **Payments Commoditisation & Super Apps:** Square's acquisition of AfterPay, Paypal's Super App evolution & Paypal looking at Pinterest tells you that the big payment processors feel the need to get closer to the consumer to maintain relevance. Amazon throwing their weight around with Visa further entrenched this opinion and has shaken the moat around Visa and Mastercard's global duopoly, delivering steady growth compounding. 2 predictions for 2022: **1) PYPL acquire an international neobank (someone like Revolut), and 2) SQ look harder at Advertising (TWTR would be obvious candidate).** The legacy processors (GPN, FIS, FISV) have seen a big derating this year and **it's going to remain hard to defend them amidst rising competitive and structural threats.**

4. **Telco Convergence:** New entrant threats (fibre overbuilders, satellite broadband, Dish) are pushing both Cable and Wireless to more aggressively expand into each other's end markets. As we have seen in Europe, this deflationary environment can be incredibly destructive for multiples against levered balance sheets. Short term, **I see greater credibility in Cable maintaining BB market share while expanding in wireless than the other way around.** The derating across VZ/T/TMUS this year is just going to be hard to correct amidst concerns over subs/pricing pressure alongside heightened investment (C-Band and 3.45GHz Auctions a prime example).
5. **Media Consolidation:** After a flurry of activity in May (Warner/Discovery, MGM/Amazon), followed up with Hello Sunshine acquisition in August, M&A chatter has gone a little quiet... likely as corporates await further clarity on the regulatory environment for the aforementioned deals. As we have written earlier in the year, I expect Disney and Comcast to reach a deal on the Hulu minorities sooner rather than later; this leaves Comcast and Viacom as the 2 large cap subscale content assets left and mostly likely to look for strategic options. **Alexia also expects Lionsgate to sell/spin Starz next year.**
6. **DTC Commerce:** A theme I called out ahead of 2021 (email [here](#)) with **SHOP** and **FB** the key beneficiaries. This will remain topical into 2022, especially as the worlds of ecomm and payments become increasingly blurred. Those without category leadership in ecomm are going to find it increasingly hard to fend off the big platforms expanding onto their turf. Investor sentiment has markedly improved in ecomm in recent months ahead of easing comps from Q2 onwards.
7. **Reopening Winners:** Buying quality reopening stories is a theme that plagued investors through 2021. UBER, BKNG, MTCH, TWTR & DIS were all really well owned into 2021; all are large market underperformers this year. As the easy comp tailwind neutralizes, investors have been shifting their gaze to COVID winners whose tough comps are fading into 2022 and could be inflation beneficiaries (e.g. ecomm, streaming, etc). Within this complex, I like ride hailing and online dating into next year; UBER and BMBL favourite names.
8. **Inflation:** We started the year with 10yr rates glued to everyone's Launchpad and while this remains a focus, investors in general will remain happy below 2% (as long as it doesn't jump there immediately). More recently, cost inflation has been a bigger talking point (labour, fuel, materials) with Disney and Amazon probably the most debated names on this theme in my world. I think this could be a bigger talking point for broader tech next year especially on the labour side. Employees returning to office and the cost of retaining talent against the allure of rapid paced blockchain/crypto developments could prove costly.

Ideas for Next Year

1. **Long Amazon (AMZN):** Worst performing name across the FAATMAN complex this year (+4% vs QQQ +25%) on tough comps, reopening headwinds and cost pressures (all Retail related). With 2022e ests suitably rebased, comps easing and the SOTPs story underappreciated I think it's a must own into next year. Most sell-siders value AWS at sub-20x EBITDA in their SOTPs which I think is categorically too low for business growing 30%+, has near 50% EBITDA margins and still has massive penetration increases coming with optionality from "metaverse" long term. 25x 23e EBITDA would be ~\$1.25T of value (71% group EV) which helps put the Retail woes / derating into perspective.
2. **Long Facebook/Meta (FB/MVRS):** Highlights: **1) Core Business Improving:** Strong growth story from sustained digital advertising momentum with optionality from Shops & Reels, IDFA headwinds improving and comps easing after Q2'21. Regulatory bear case has largely dissipated after struggled attempts from the FTC. **2) Metaverse:** More users and more capital to throw at this than anyone else. FB is 90%+ exposed to advertising revenue right now... this unlocks a huge amount of new TAM across Gaming, Video Streaming, Communication, Education, and more. **3) Valuation:** \$21 of core 23e EPS values the business at 16x core P/E. Core EPS growth of 20%+ makes this look very cheap with all the optionality around metaverse investments. Expect this valuation methodology to get more appreciation as the core business improves and Reality Labs datapoints materialize.
3. **Long Marqeta (MQ):** Fundamentals have been largely irrelevant since IPO with the technical backdrop of pre-IPO supply being a much larger share price driver. Q3 earnings were strong across the board, highlights: 1) top line beat and mgmt to an acceleration in Q4, 2) gross margins bounced back after a weak Q2, 3) Square dependence fell (Q3 68% revenue vs Q2 72%). Despite all this, stock is trading off 25% from IPO price due to the lock-up overhang. Now we have digested some of this supply and liquidity is improving, the backdrop makes it much more interesting into 2021. Stock trades on 20x 23e EV/GP vs SHOP 38x, BILL 32x which I think should be

considered as the right comps for a category leader with huge TAM optionality. Marqeta is powering the rise of neobanks alongside a wide range of payment processing for other industries: Food Delivery, BNPL, Supply Chain Management, Crypto, etc.

4. **Long Bumble (BMBL):** Trading near all time lows and >20% below IPO price following a miss on Q3 Bumble net ads. We should gain more clarity over AppStore fees over early Q1 which could be a meaningful profitability tailwind into 2022; Cory sees potential for a 10%pt EBITDA mgn uplift for Apple making these changes globally (note [here](#)). We recently hosted Bumble's CEO, CFO, IR on the road in NYC and Boston for their first in person meetings since IPO; they gave a confident message on improving global Bumble App trends for Q4 and 2022. The stock has now derated to 23x 23e EV/EBITDA for 30% 2020-23 EBITDA CAGR with upgrade optionality from AppStore fees (compares to MTCH on 24x for 22% CAGR).
5. **Short Airbnb (ABNB):** Has been a great stock since IPO last December and it's continued to ride the wave of global reopening through 2021. I think growth has a number of headwinds into 2022 and beyond: 1) limited room for an expansion of online penetration in the travel vertical, 2) increased competition with hotel direct channels and OTAs as urban/city travel ramps, 3) RTTO reversing out the COVID tailwind from users "living on Airbnb", 4) supply constraints. Trading at 11x 23e EV/Sales & ~40x EBITDA, ABNB needs to be producing upgrades next year which isn't obvious to me.
6. **Short SiriusXM (SIRI):** We recently downgraded the stock from OW to Neutral on the back of cuts to self-paid net adds on auto supply constraints and FCF cuts due to pull forward of satellite builds. We're ~5% below consensus on 2022e FCF. Structurally, this name also has a lot of hair to it given shifts in the car listening model... Spotify pushing harder, Apple beefing up its Car Play service and nationwide proliferation of wireless connectivity removing the need for satellite radio. I also think the bull case around non-car subscriptions is going to be incredibly difficult to play out given the already entrenched position Spotify and Apple have. SIRI trading on a premium to FB and CHTR on 23e EV/EBITDA is really tricky to justify given these structural threats.

A recap of 2021 Ideas (last year's outlook piece [here](#)):

1. **Long FB:** +22%
2. **Long CRM:** +14%
3. **Long TMUS:** -11%
4. **Long SHOP:** +17%
5. **Long LITE:** +10%
6. **Short DISCA:** -23%
7. **Short EBAY:** +29%
8. **Short CTXS:** -35%
9. **Short WDC:** +3%

Total performance: +9%

Quotes of the Year

From the Corporates...

"I only heard about Archegos basically when it hit the news." Credit Suisse CEO

"If you do it right, a few years after a surprising invention, the new thing has become normal. People yawn. That yawn is the greatest compliment an inventor can receive." Jeff Bezos in shareholder letter announcing he will step down as CEO

"we are similarly seeing trading up improvements for Durex in markets where social restrictions are being aged" Reckitt Benckiser CEO talking about the great reopening

"look, I've been around a long time, I just turned 60 and I've never really seen with the exception of maybe Google search a business like this one" Chegg CEO in May, stock down 70% since

"Tim Cook says employees who leak memos do not belong at Apple, according to leaked memo", The Verge

"We're Not Done Yet", Discovery CEO in interview from Sun Valley when asked about Media consolidation

"So what is the metaverse? It's a virtual environment. We can be present with people in digital spaces. And you can kind of think about this is an embodied Internet that you're inside of rather than just looking at. And we believe that this is going to be the successor to the mobile internet." Mark Zuckerberg; one of 17 times mgmt used the word Metaverse on conf call

"Dogecoin Poll was by far my highest ever read tweet. In 24 hours, 4.2 million views, my most ever retweets, most ever replies. 140,000 votes 77% yes 23% no. It's clear that you think AMC should accept Dogecoin. Now we need to figure out how to do that." AMC CEO

"What does the name change mean for 'FANG'?" ... "MAGA + T" as the new \$1T club was the best suggestion I heard.

"Wild \$T1mes!" Elon Musk tweet

"we can cut portion sizes, which is probably good for some people's waistlines" Disney CFO talking about ways to mitigate inflation at Parks

"I've been using an @F1 analogy for ad tech's transitions: it's like when the Safety Car comes out. It causes the whole field to compress. It narrows the gap between competitors, then the race restarts and everything has changed" TWTR Head of Product

From Clients and Colleagues...

"The Big Short II: Oops!" Ron Adler

"CashApp is a lyric, Venmo is a verb" Tien-Tsin Huang

"Crypto is like horoscopes for nerds", HF Client

Everything Else...

"Some businesses that advertised during Tom Brady's first Super Bowl: AOL, Blockbuster, Radio Shack, Circuit City, CompUSA, Sears, HotJobs, Yahoo, VoiceStream Wireless, Gateway Computers"

"Gronks only go up" CNBC during interview with Ron Gronkowski talking about NFTs

"the 74 yr old prez of Real Madrid coming out to say the game needs to change is like Sumner Redstone discussing streaming", Client

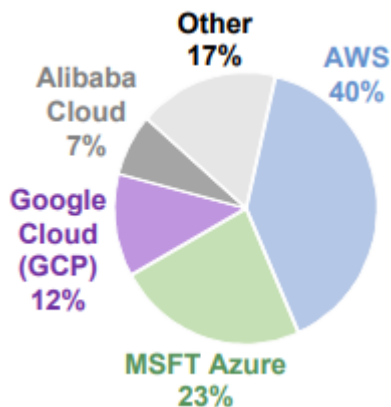
"Every Doge has it's day", CNBC headline on 4/20

"There are 330 S&P 500 companies w/ T12 revs < the \$12.28B AAPL just beat consensus by. The \$90B buyback authorization is > 400 of the S&P500's components." Twitter

"I hope they don't raise your taxes, but if they do, I told you so" Donald Trump's farewell speech

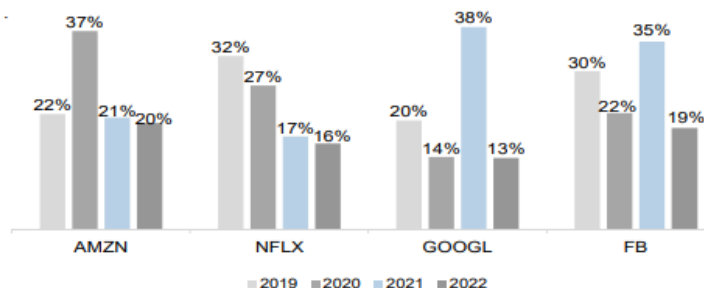
Charts of the Year

Public Cloud Market Positions

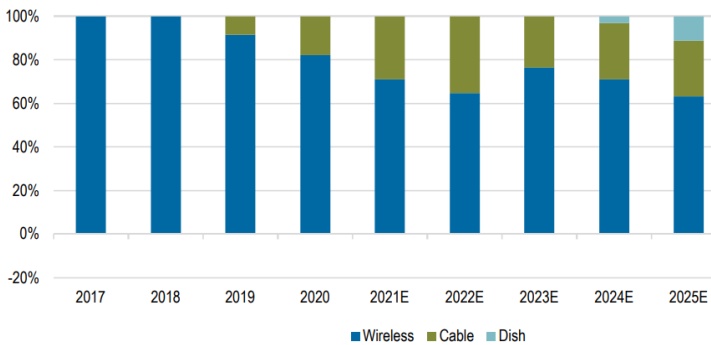


FANG Growth Normalisation

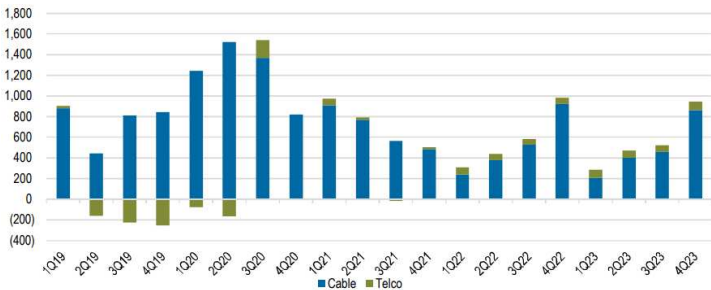
Y/Y Revenue Growth %



Expected Split of Postpaid Phone Net Ads between Wireless and Cable



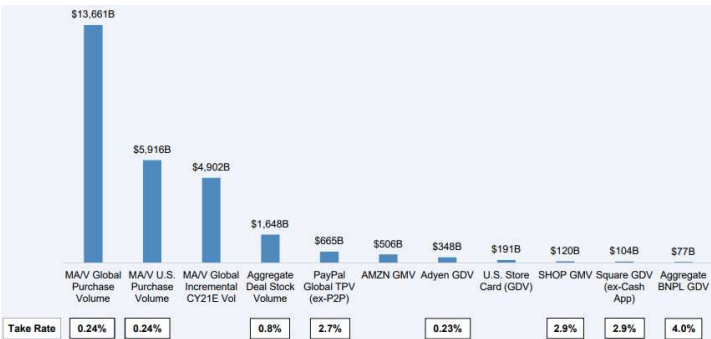
Expected Split of Broadband Net Adds between Cable and Telco



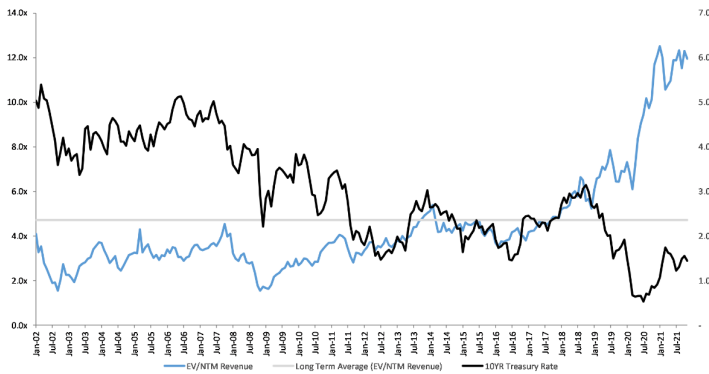
Payment Processor Index Performance Relative to S&P 500



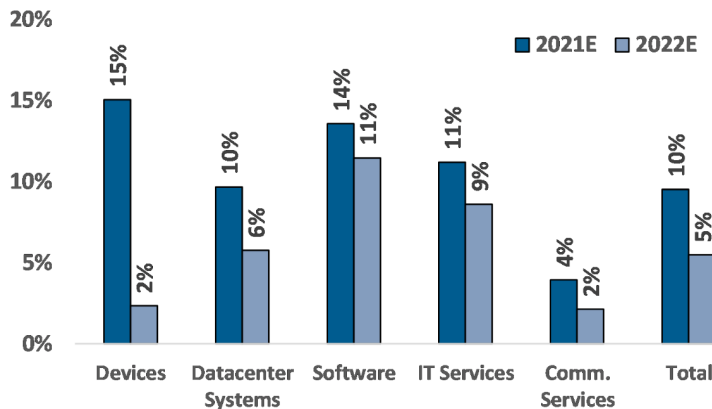
Contextualising Payment Volumes by Platform



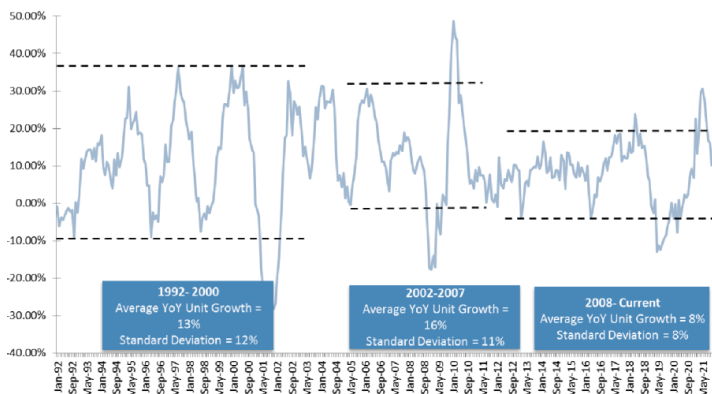
Software Valuations (EV/Sales, RHS) vs 10yr Treasury Rates (% , LHS)



IT Spending Forecast by Product Verticals



Semis Unit Growth Y/Y (ex-discrete)



Movers and Shakers

AMC +1053%: Retail-mania!

GSKY +154%: Improving sentiment in consumer financing and ultimate take out by GS

ASAN +128%: 28% 22e revenue upgrades YTD

NVDA +117%: Upgrades on improved DC & gaming/metaverse momentum

FTNT +117%: 20% 22e revenue upgrades on industry consolidation and market share gains

SFIX -69%: Mgmt transition and difficulty navigating strategy shift

CHGG -69%: Big COVID-linked deterioration in enrolments on student engagement

PTON -74%: Re-opening headwinds alongside operational mis-steps

AI -77%: Contract slip outs pressure growth momentum

WISH -83%: Enormous user and growth downgrades resulting in founder stepping down as CEO

Research Highlights

- US Internet:** Doug Anmuth's outlook for 2022. Top picks are **AMZN, FB, TWTR, NFLX, SPOT, UBER, BMBL, MTCH**. Presentation [here](#).
- US Telcos:** Phil Cusick's outlook for 2022. Top picks are **TMUS, CHTR** and **ATEX**. Presentation [here](#).

- **US Media:** Alexia Quadrani's outlook for 2022. Top picks are **DIS, FOXA, RBLX, APP, NYT, OUT, EDR**. Presentation [here](#).
- **US Payments:** Tien-Tsin Huang's outlook for 2022. Top picks are **FISV, FIS, GPN, PYPL, MA**. Presentation [here](#).
- **US Software:** Sterling Auty's outlook for 2022. Top picks are **ZM, PCOR & INTA**. Presentation [here](#).
- **US Networking Hardware:** Samik Chatterjee's outlook for 2022. Top picks are **AAPL, QCOM, CIEN & ANET**. Presentation [here](#).
- **US Semis & Semicap:** Harlan Sur's outlook for 2022. Top picks are **AVGO, MRVL & KLAC**. Presentation [here](#).
- **EU Telecoms Outlook 2022:** [here](#)
- **EU Tech Outlook 2022:** [here](#)
- **EU Internet Outlook 2022:** [here](#)
- **EU Software Outlook 2022:** [here](#)

Thoughts welcome, Jack

J.P. Morgan TMT Contacts



Sector Specialists:

US Telco, Media, Internet: Jack Atherton jack.atherton@jpmorgan.com +1 212 622 2765

US Tech: Ryan Hay ryan.h.hay@jpmchase.com +1 212 622 7404

EU TMT: Paul Shin paul.shin@jpmorgan.com +44 207 1334 0378

TMT Trading:

Ron Adler – US TMT (Internet, Media, Telecom, Software)

Stuart Humphrey – US TMT (Semi's, Hardware, Payments)

Michael Krueger – US TMT Derivatives

Richard Arnopp – EU TMT

Mike Kenneally – EU TMT Derivatives

Telecoms Research:

Phil Cusick philip.cusick@jpmorgan.com (1-212) 622-1444

Richard Choe richard.choe@jpmorgan.com (1-212) 622-6708

Sebastiano Petti sebastiano.c.petti@jpmorgan.com (1-212) 622-8529

Amir Razban amir.razban@jpmorgan.com (1-212) 622-5623

Media Research:

Alexia Quadrani alexia.quadrani@jpmorgan.com (1-212) 622-1896

David Karnovsky david.karnovsky@jpmorgan.com (1-212) 622-1206

Anna Lizzul anna.lizzul@jpmorgan.com (1-212) 622-6139

Zilu Pan zilu.pan@jpmorgan.com (1-212) 622-6522

Internet Research:

Doug Anmuth douglas.anmuth@jpmorgan.com (1-212) 622-6571

Cory Carpenter cory.carpenter@jpmorgan.com (1-212) 270-8125

Dae Lee dae.k.lee@jpmorgan.com (1-415) 315-8500

Katy Ansel katy.ansel@jpmchase.com (1-212) 622-8874

Neeraj Kookada neeraj.s.kookada@jpmchase.com (1-212) 622-8980

Bryan Smilek bryan.smilek@jpmchase.com

Payments, Processors & IT Services Research:

Tien-tsin Huang tien-tsin.huang@jpmorgan.com (1-212) 622-6632

Puneet Jain puneet.x.jain@jpmorgan.com (1-212) 622-1436

Reggie Smith reginald.l.smith@jpmorgan.com (1-212) 622-6743

Andrew Polkowitz andrew.polkowitz@jpmorgan.com (1-212) 622-1219

Hitesh Malla hitesh.malla@jpmchase.com (91-22) 6157-3897

Semi's, Semi Cap Equipment & Tech Hardware Research:

Harlan Sur harlan.sur@jpmorgan.com (1-415) 315-6700

John Ahn john.s.ahn@jpmorgan.com (1-415) 315-6758

Peter Peng peter.k.peng@jpmchase.com

IT Hardware, Alternative Energy Research:

Bill Peterson bill.peterson@jpmchase.com (1-415) 315-6766

Paul Chung paul.j.chung@jpmorgan.com (1-212) 622-5552

Mark Strouse mark.w.strouse@jpmorgan.com (1-212) 622-8244

Telecom/Networking Equipment & IT Hardware Research:

Samik Chatterjee samik.x.chatterjee@jpmorgan.com (1-212) 622 0798

Joseph Cardoso joseph.cardoso@jpmchase.com (1-212) 622-9036

Enterprise Software Research:

Mark Murphy mark.r.murphy@jpmchase.com (1-415) 315-6736

Matt Coss matthew.j.coss@jpmchase.com (1-415) 315-7505

Pinjalim Bora pinjalim.bora@jpmchase.com (1-415) 315-6764

Software Technology Research:

Sterling Auty sterling.auty@jpmorgan.com (1-212) 622-6389

Jackson Ader jackson.e.ader@jpmorgan.com (1-212) 622-4863

Drew Glaeser drew.e.glaeser@jpmchase.com

Maya Kilcullen maya.r.kilcullen@jpmorgan.com

Rachit Agrawal rachit.x.agrawal@jpmchase.com

[back to top](#)

This communication is intended for institutional clients only. Do not forward to any non-institutional clients. You are receiving this email because you are a client of J.P. Morgan. If you would like to stop receiving the TMT Sector Specialist Commentary please email Jack Atherton at jack.atherton@jpmorgan.com. This material has been prepared by personnel in the Sales & Trading Department and may include non-independent research (investment recommendations) which, for the purposes of MiFID 2 compliance, may also constitute a marketing communication. As such, this material has not been prepared in accordance with legal requirements designed to promote the independence of Investment Research, including but not limited to the prohibition on dealing ahead of the dissemination of Investment Research. It is not a product of J.P. Morgan's Research Department. It is not a research report, investment research or independent research and is not intended as such. This material is subject to the disclosures available at the following site <http://www.jpmorgan.com/pages/disclosures/materialdisclaimer>. The location of the natural person that produced this/these recommendation(s) (the Recommendation(s)) is set out in their signature block. Where the natural person that produced this Recommendation(s) is located in EMEA the legal person involved in the production of the Recommendation is J.P. Morgan Securities plc (JPMS plc) a firm authorised by the Prudential Regulation Authority (the PRA) and regulated by the PRA and the Financial Conduct Authority (the FCA). Where the natural person that produced this Recommendation(s) is located in the United States the legal person involved in the production of the Recommendation is J.P. Morgan Securities LLC (JPMS LLC) a firm registered with the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB). Where the Recommendation(s) are jointly produced by natural persons located in EMEA and the United States, the legal persons involved in the production of the Recommendation will be both JPMS plc and JPMS LLC together. Where you are an APAC or EMEA ex-EEA client, this Recommendation(s) is distributed to you by JPMS plc. Where you are a client based in the EEA, this Recommendation(s) is distributed to you by J.P. Morgan AG (JPM AG). JPM AG is authorised by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht - "BaFin") and regulated by the BaFin, the German Central Bank and the European Central Bank. Where you are a client based in the United States, this Recommendation(s) is distributed to you by JPMS LLC. JPMS plc, JPM AG and JPMS LLC (together "J.P. Morgan") may not be licensed in your home jurisdiction; please refer to the Regulatory Disclosures section of <https://www.jpmorgan.com/pages/disclosures> for important information. Clients should contact their salespersons at, and execute transactions through, a J.P. Morgan entity qualified or authorised in their home jurisdiction except to the extent governing law permits otherwise. Unless stated otherwise in the body of the Recommendation(s) no material sources, valuation, methodology or proprietary models were used to produce the Recommendation(s). J.P. Morgan has no obligation to update the Recommendation(s). The validity period for the Recommendation(s) is short term, it will last only as long as the market conditions at the time of dissemination. Any dates and times stated in the Recommendation(s) may not be precise or exact and should be used for guidance only. Unless stated otherwise in the Recommendation(s), the date and time of dissemination are the date and time this email is sent (or where this email was forwarded to you, the date and time of the original email) and the date and time of dissemination is also the date and time of production.

J.P. Morgan may today, or in the future, do business that could give rise to an interest or conflict of interest concerning any issuer(s) or financial instrument(s) to which the Recommendation(s) directly or indirectly relates. Please visit [Disclosure of issuers to which J.P. Morgan provides the services of an investment firm](https://www.jpmm.com/specsales) OR <https://www.jpmm.com/specsales> for important disclosures relating to the Recommendation(s).

For details on how the Recommendation(s) varies from previous recommendations sent by the author of this/these Recommendation(s) please refer to [Disclosure of J.P. Morgan's 12 month history of investment recommendations](#) where a list of all the recommendations produced by the author of this/these Recommendation(s) in the last 12 months can be found.

The Recommendation(s) has been prepared in accordance with J.P. Morgan's policies for managing conflicts of interest which is available at the following link <https://gcm.jpmchase.net/ContentRestService/service/download/?docId=9ABD39F5-B78A-44F1-8416-13B7B917DBBC>; this policy describes the effective internal, organization and administrative arrangements J.P. Morgan has in place for the prevention and avoidance of conflicts of interest. The remuneration of the both the legal and natural persons involved in the production of the Recommendation(s) may be directly or indirectly tied to trading fees or other client revenue JPMS plc or any member of the J.P. Morgan group receives.

MAR Disclosure site: https://markets.jpmorgan.com/#disclosures.Market_Abuse_Regime