



Baird Technology Sector Strategy Earnings preview of Q121 Set up for 1H21

**Ted Mortonson Managing Director, Technology Desk Strategist
(Updated 5/6/21)**

The Earnings data and commentary in this presentation is derived from public quarterly conference calls. The Baird Technology Research Team when annotated is available to go into further detail on this data. This is a product of Baird Technology Sale.

Technology Market Metrics (4/14/21):

The macro:

For now, its all about the “V” recovery (Vaccine) and Stimulus

5/6/21 (Bloomberg data)

CCMP (NASDAQ Composite Index): up 5.78% YTD

- **REMINDER: For 2020, the CCMP (NASDAQ Composite Index) was up 43.4%**
- Digital Transformation/Cloud/Data Center and 5G macros well understood

SPX (S&P 500 Index): up 11.9% YTD

- **REMINDER: For 2020, the SPX (S&P 500 Index) was up 15.5%.**
- 5 names make up 23% of the index: **MSFT** (up 37% in 2020), **AAPL** (up 62% in 2020), **AMZN** (up 69% in 2020), **FB** (up 35% in 2020), **GOOG** (up 33% 2020)

RTY (Russell Index): up 13.5% YTD

- **REMINDER: For 2020, the RTY (Russell Index) was up 18.7%**

SOX (Semi Index): up 9.7% YTD (start focusing on the 5-year chart)

- **REMINDER: For 2020, the SOX (Semi Index) was up 50.5% YTD**
 - Buffer inventory builds driving sector accumulation
 - Higher content in Auto, Industrial, 5G and Data center silicon
 - The new 7nm, 5nm and 3nm manufacturing nodes represents a multi-year investment cycle (scale matters)

INDU (Dow Jones Industrial Index): up 12.9% YTD

- **REMINDER: For 2020, the INDU (Dow Jones Industrial Index) was up 6.6% YTD**

IGV (Cloud Index): is DOWN 3% YTD

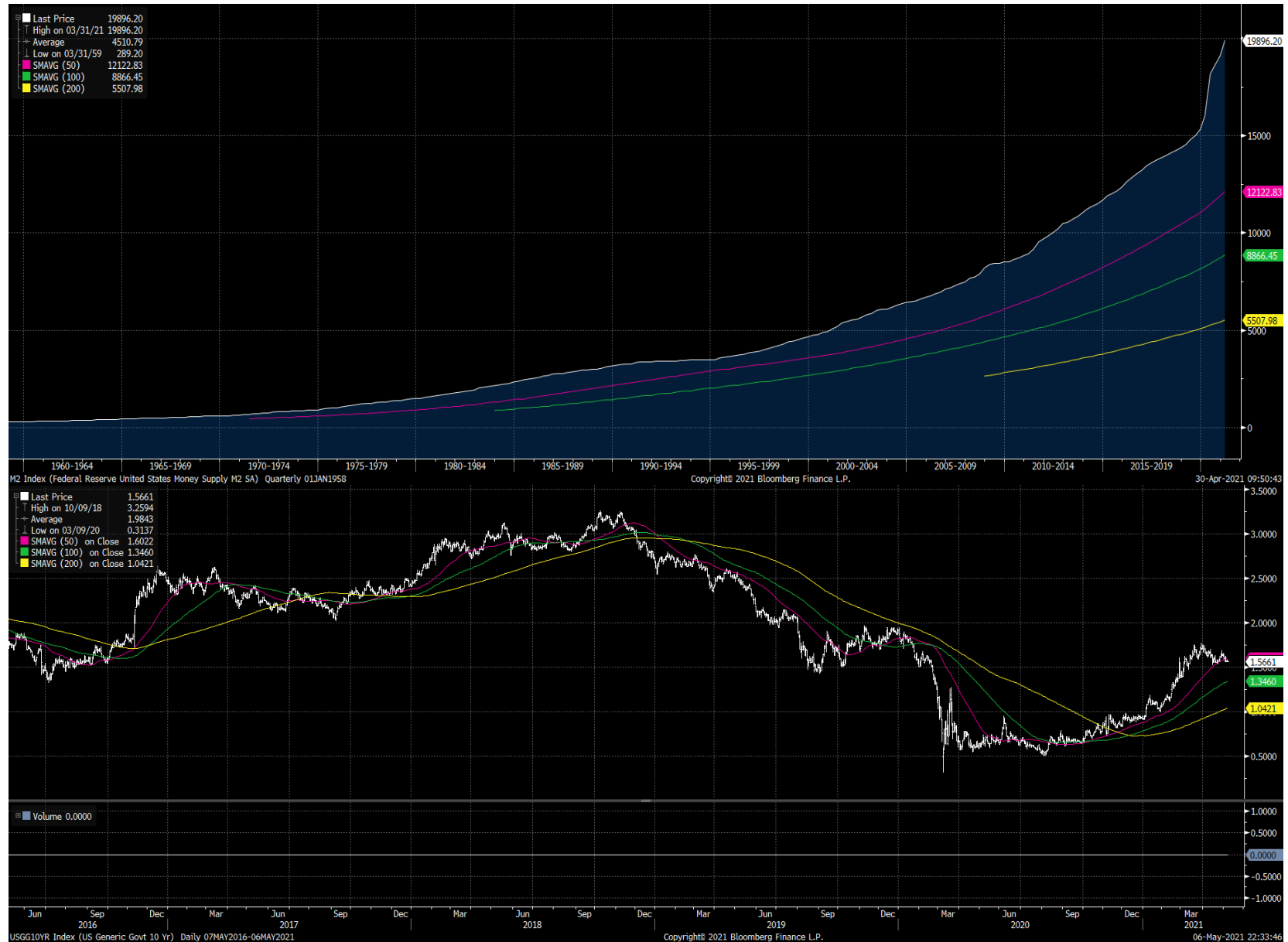
- **REMINDER: for 2020, the IGV (Cloud Index) was up 51.6%**
 - The drumbeat from management Teams: “ seeing a pull in of Digital Transformation, Cloud, AI and web enabled SaaS applications” (V shape recovery, momentum investors and short covering). The perfect FOMO melt up since 4/1/20
 - The Vaccine trade MUST be monitored (sector rotation top of mind). Monitor the remote bundle.

Key Economic Macro inputs: "GLOBAL STIMULUS HAS ELIMINATED TRADITIONAL ECONOMIC SIGNALS and VALUATIONS"



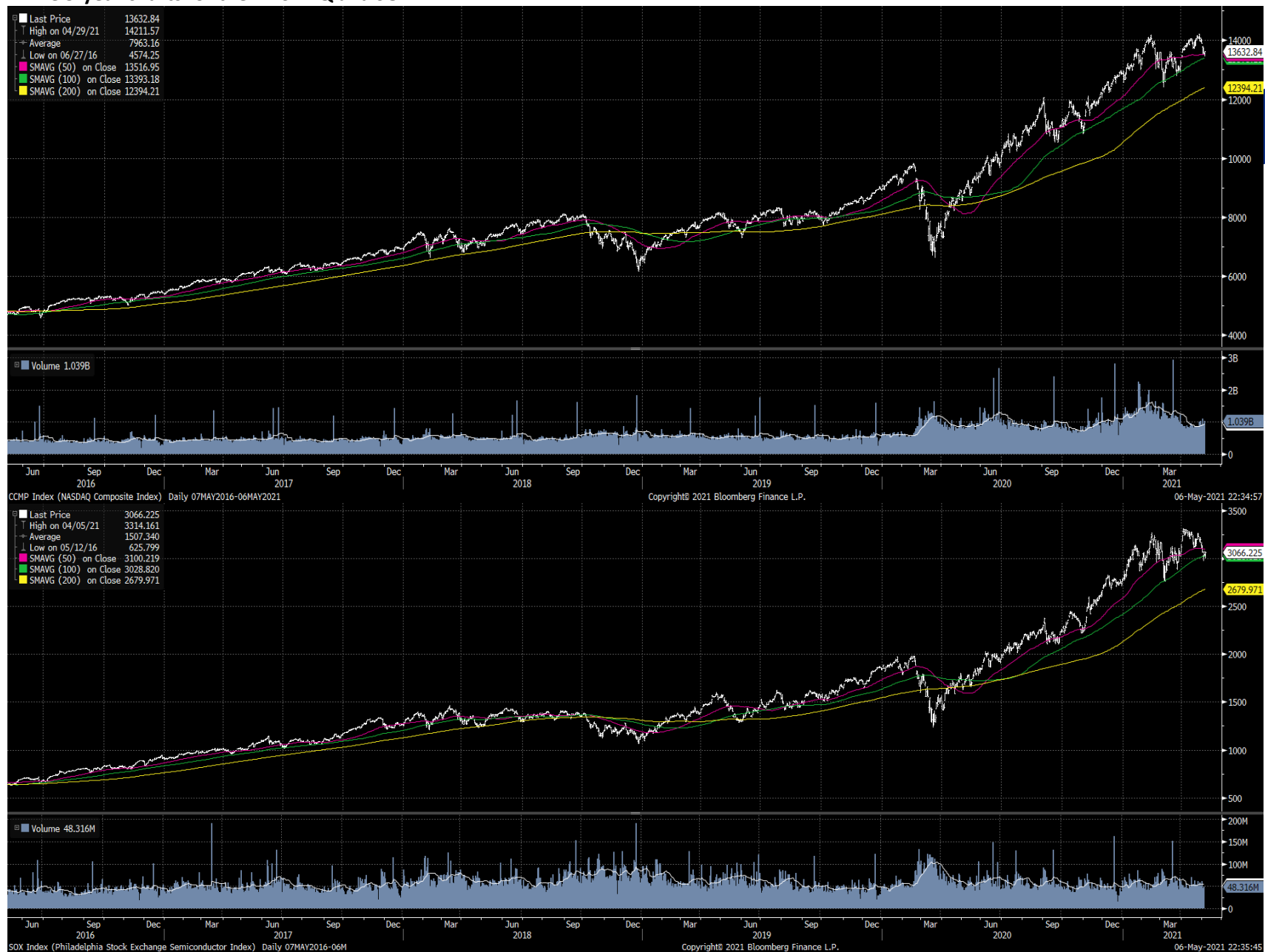
- Where have we been: There continues to be a daily battle between "believe in the dream" vs fundamentals vs stimulus investing". Liquidity combined with Stimulus fundamentals equates to a melt up that will last thru 2022
 - **Q120:** Covid froze demand and the supply chain in March 2020. **GDP fell 5% y/y**
 - **Q220:** The majority of the Covid impacts was felt in Q220 with **GDP declining 31.4%.**
 - The Covid dislocation brought forward secular trends around Digital Transformation were brought forward by **YEARS (WFH, PFH, LFH)**
 - **Q320:** "The bounce", violent 2nd derivative. Normalized production < pre-Covid levels. **Q3 US GDP up 33.4%**
 - **Q420:** GDP expanded 4%
 - **2020 GDP:** up 3.5% vs 2019 which expanded 2.2%
 - **2021 GDP projected to up ~7%+** (the debate of the 2023 down cycle)
 - The financial cushion of stimulus (**3 rounds**) spent so far equates to **~\$5.335T.**
 - M2 money supply at \$20T, growth the highest since the 1940's
 - **Deficits:** Trailing 12 months the US budget deficit is projected at **~ \$3.3T with a national debt of ~\$28.1T or 130% of GDP (the highest since WWII)**
 - **US margin debt now stand at ~\$823B up 72% y/y**
 - **T&E leverage** was the BIG driver in 2020.
 - For 2021, T&E is now reversing on increased hiring, higher marketing and reopening overhead (higher T&E)
 - On GM, input prices headed in the wrong direction
- Wall Street's Forward Focus: Talking heads have worn out "transitory thought process"
 - Both ISM Manufacturing and Services indexed hit multiple monthly and yearly highs
 - **On 5/3/21: ISM Manufacturing Index hit 60.7 vs 64.7 m/m** (the highest level since 12/83)
 - **4/30/21: Chicago Purchasing Index 72.1 vs a forecast of 65.3 and 66.3 q/q (the highest since 1983)**
 - **4/30/21: Personal income up 21.1% due to stimulus (highest level since 1943)**
 - Supply chain shortages acute (boats, autos, ATV, jet skis, semis)
 - Semi lead times continue to extend (most likely will not normalize to well into 2022)
 - 2nd derivative is starting to moderate: **TSM** (auto catch up by Q321), **TXN** (guided flat vs up seasonally, **ON** (normalization of supply demand dynamics at YE21. Q3 down q/q (tough compare, Q4 normal seasonality) and **QRVO** (pricing leverage and supply constraints moderating in FY22)
 - Comparison across the re-open/infrastructure vs the previous Covid trade are dynamic
 - The focus is on Macro monopolies vs compares across e-commerce, SaaS, Remote infrastructure, Cloud and Security
 - **The "roaring 20's,** are upon us due to unbridled stimulus ("the peak of the economic cycle"?)
 - SMB/Commercial (<100M in revs) and on-premise enterprise spend are now at pre-Covid levels
 - Inflation is inflecting across multiple industries (10- year rates trend is up)
 - **The Q1 GDP report pointing to a 2021 annualizing growth rate of 6.4%+**

Key Economic Macro inputs: "STIMULUS HAS ELIMINATED TRADITIONAL ECONOMIC SIGNALS" We are a wash in liquidly. Bubble?



The top 15 Technology macros have not changed. In this cycle, numerous macros are interrelated. **EXPECTATIONS are high**

The 5-year charts for the NASDAQ and SOX



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The Top 10 2020 Technology Macros: (Accelerating Secular, Core Secular, Secular but seeing peak growth)

- ***Digital Transformation:** the digital future is arriving much sooner. Digital RE-PLATFORMING a multi-year macro
 - ACN, CRM, CTSI, INFY, AMZN, GOOG, MSFT, NOW
- ***Artificial Intelligence (AI)/Machine Learning** (ML)=>all industries impacted
 - AMD, AMZN, AYX, BABA, FB, INTC, GOOG (Bert), MSFT, NVDA, SPLK, XLNX (AMD)
- ***Cloud:** Public, Hybrid, Private deployments (\$21B+ in quarterly spend across cloud Titans)
 - AMZN, ANET, BABA, CRM, IBM (RHT), GOOG, MRVL, MSFT, NOW, NVDA (A100) ORCL, SAP, SPLK, VMW
 - ***Edge Data Center** macro accelerating
 - ***Observability:** DDOG, DTC, ESTC, SPLK
- ***E-commerce** : AI/ML driving same day delivery/Covid supply chain
 - AMZN redefining logistics. The company spent \$800M in Q219 to go to 1-day delivery. AMZN 2020 cost associated with Covid totaled \$11.5B (\$2.1B in Q121).
 - The bundle: AMZN, BABA, FB, GOOG, PYPL, SHOP, SQ
- ***5G=>Handset Mobility** (silicon content up ~4x)/**WiFi 6:** infrastructure, handsets (5G 15% of the TAM or ~200M units (140M into China), enablement of IOT/AI at the edge
 - AAPL, ADI, AVGO, BAND, ERIC, FTNT (new), INTC, KEYS, MRVL, NATI, NVDA (new), QCOM, QVVO, SWKS, TER, XLNX
- ***Software as a Service (SaaS)/Zero Trust Security**
 - SaaS: ADBE, ANSS, BSY, CRM, NOW, SPLK, TEAM, TWLO, VEEV, WDAY
 - Security: the pivot to cloud based “zero trust” architectures: NET, PANW, VMW, ZS
 - NVDA (new) has drawn a new line in the sand on security residing on silicon (NVDA’s DPU=>Bluefield)
- ***Semiconductors:** increased content across 5G, DC, Auto, Industrial and IOT end markets. Supply constraints acute (Covid reopen and move to Digital architectures). ARM emerging to challenge x86
 - ADI (MXIM), INTC (\$10B ASP), NVDA (ARM), NXPI, ON, TXN, XLNX
 - *Focus on Fabless: AMD, MRVL (IPHI), NVDA, QCOM, XLNX) (AMD)=> TSM enabled at 7 and 5nm (AAPL)
 - Huawei inventory close to being depleted post 9/20 DOC restrictions
 - Higher content across 5G (250M handsets in 2020 going to 550M in 2021 (3x the content), Industrial and Auto end markets (EV crowded)
- ***Semi IC design/Equipment:** Moore’s Law compromised. The move to 7nm-3nm nodes game changing (EUV). AMAT, ASML, KLAC, LRCX, TSM, Software=>CDNS, SNPS
 - NEW (\$236B of proposed capex spend): INTC spending \$20B for Foundry business and expansion, TSM will spend \$100B over 3 years, Samsung increasing spend materially. Supply now a natural security issue. NEW: 5nm and below production now a National Security issue
 - Supply tight, capex being increased (EUV, Test and Assembly)
- ***Internet of Things (IOT)/AI** and the proliferation of “edge computing”
 - AKAM, AMZN, CSCO, FSLY, GOOG, INTC, QCOM, SMTC (LoRa)

2020 Key “Secondary” Technology Macros (7)

- ***Remote Infrastructure (COVID 19)**: 95% of employees now remote. (a reopen focus. We have pulled in A LOT of PC growth)
 - AAPL (Mac/iPad), AKAM, AMD (NB), AMZN, BAND, CHGG, CHKP, CSCO, **CTXS**, CRWD, DOCU, FFIV, FIVN, FSLY, FTNT, GDDY, INTC (NB), LLNW, LPSN, MSFT, NET, **NFLX**, PANW, OKTA, PTON, RNG, SHOP, SPLK, TWLO, TWOU, VG, VMW, W, WIX, ZM, ZS
- ***Telehealth**: Covid 19 has changed healthcare in 2 months
 - AAPL, GOOG, TDOC, VEEV
- **Hyperscale Infrastructure Software**: scale out data bases/containers
 - **NTNX, VMW, NVDA** (new=>AI stack monetization new=>billions of revenue potential)
- ***Next Generation Security**: on premise migration to “zero trust” (**ZS, NET, PANW**) Cloud based security (monitor consolidation). PLATFORMS win this cycle
 - CYBR, OKTA, FEYE, FTNT, **NET**, PANW, VMW, **ZS**
- ***Over the Top**: OTT=>migration away from linear TV dramatic. Long term, explosion of new content
 - AKAM, AMZN, BABA, CMCSA (Peacock/Hulu), DIS, **FSLY**, GOOG, NFLX
- ***Social Media/Digital Advertising**: traditional channels and access to the cord cutters
 - AMZN, FB, GOOG, PINS, SNAP, TTD, TWTR
- **Autonomous Driving**: AI, real time mapping, ADAS, enabling silicon
 - GOOG, INTC, NVDA
 - LIDAR the new emerging TAM: AVEA, IIVI, LAZR, LITE, VLDR
- **Gaming**: E-Sports inflecting, scale out cloud streaming platforms vs consoles
 - EA, GOOG, MSFT, NVDA, SNE
- ***Telecom** (5G, 100G migration to 400G optical cycles=>800G on the horizon)
 - VZ increased spend by \$10B over 3 years for C-Band investment above core capex of ~18B
 - ANET, AVGO, CALX, CIEN, CSCO, IIVI, IPHI, JNPR, KEYS (400G in DC), LITE, NPTN
- **Payments/*Blockchain/Bitcoin**

Key Q121 Trends

Hyper Inflation: (higher prices/higher input costs)

- **HPE:** “Inflationary environment” around memory a topic on the call (DRAM=>MU)
- **MU:** DRAM pricing inflecting
- **TSM:** Pricing being raised on selected nodes due to cost structures at 5nm and 3nm as well as investments in more mature nodes.
- **WDC:** pricing increasing in HDD and NAND
- Other semi shortages (**ANET** case study), the debate of double ordering
- Other companies highlighting **higher input costs:** **KO, PPG, PG, HAL, TEL, WHR**
- Other companies highlighting **labor inflation:** **CMG** (most restaurants and service industries)
 - \$15/hour vs Government subsidies at \$18/hour
- The “**sell on the news bundle**” (expectations high):
 - **GLW, FISV, MKSI, TSLA, MSFT, TXN, TER, NXPI, PTC, AAPL, AMZN, VRNS, ON, NOW, FIVN, SWKS, WDC, CDW, HUBS, RNG**
- Names that “**traded up**” on a strong macro, model leverage and/or product cycle acceleration
 - **AMD, GOOG, SHOP, SNAP, QCOM, FB, FTNT, TEAM**
- FCF matters and is preferred if window gets closed
 - **ADBE, MSFT, GOOG, FB, NOW, ACN, CHKP, CRM, CSCO, GPN, NVDA, PANW, QCOM, SNPS, TXN, W**
- Names with marginal FCF due to hyper growth are under the microscope=>the 2000 cycle)
 - **COUP, BL, DDOG, FSLY, MDB, NET, OKTA, RPD, SNOW, SPLK, SPT, TWLO, WK, NET**
- “Other inputs”
 - **The 10 year at 2.5%+ (the impact of hyper inflation on valuations)**
 - **The ARK affect (ARKK)**
 - **SPAC bubble**
 - **Margin Debt** (~\$823B up 72% y/y)
 - **Company growth materially higher than historical industry growth** (2000 cycle lesson learned)
 - **Chart damage on leadership names have been extensive**

Key Q121 Reports

Services (Digital Transformation leverage)

ACN FQ221 Conference Call 3/18/21

- (+) Seeing an accelerated “re-platforming” to Digital Transformation solutions.
 - Demand came in hotter than anticipated.
 - Pricing: seeing some stability
- Rev \$12.1B (guide \$11.55B-\$11.95B), up 8% y/y in USD and up 5% y/y CC (street \$11.83B)
 - Monitor=>INDIA, Growth Markets (APAC) \$2.43B (20% revs) up 8% USD and up 6% y/y in CC

Software (positive prints but it all about the 10 year and potential multiple adjustments. FCF MATTERS)

ACN FQ221 Conference Call 3/18/21

- Revenue \$1.039B up 15.6% y/y (97% recurring), Street \$1.01B
 - AEC (43% revs) up 18% y/y
- Revenue \$955M-\$970B, Street \$995M
 - Seasonal quarter, low point of the year

COUP Q421 Conference Call 3/17/21

- Revenue \$163.54M (\$145M-\$146M) was up 46.7% y/y Street \$146M.
- EPS \$.17 vs the Street at \$.11
- FY22 Guide:
 - Revs of \$675M-\$678M vs the street of \$665M
 - LLamasoft looks to be dilutive for Q421-Q222
- EPS adjusted from (\$.27)-(\$.23) vs the street of \$.36

CDNS Q121 Conference Call 4/26/21

- (-) NEW: now seeing some headwinds in the IP business due to worse Covid trends in India over as well as chip supply restrictions for the next 3 quarters.
- (-) NEW: Strong 2H20 momentum in China (Big part of Q&A) is now starting to normalize to historical revs of ~12%
- Revenue \$736M up 19% y/y, Street \$718M

CRWD Q421 Earnings Conf. Call (3/16/21)

- Rev \$264.9M was up 74% y/y, Street \$250.6M
- Q122 Guide (Includes Humio Acquisition):
 - Expecting seasonality in net new ARR to be less pronounced relative to prior years
 - Revenue \$287.8-\$292.1M, y/y growth of 62%-64%, Street \$267.8M

Key Q121 Reports

Software continued (positive prints but it all about the **10 year and potential multiple adjustments. FCF MATTERS**)

FTNT Q121 Conf call (4/29/20)

- (+) Continue to see strong adoption of the FTNT security fabric (growing 17%) and platform or (growing at 40% and will approach \$1B in 2021). **5G security** and SDWAN long term macros
- Rev. \$710.3M up 23% y/y, Street \$681M
- Product revs \$240.7M up 25.2% y/y (highest in last 5 years)
- Subscription Services \$470M up 21.8% y/y

MANH Q121 Earnings Conf. Call (4/27/21)

- Rev \$156.9M up 2% y/y, Street \$143.8M
- **RPO totaled \$421M up 108% y/y and 36% q/q**
- FY21 Guide:
 - Rev up to \$625M-\$640M (Previously \$595M-\$625M), Street \$613M. Includes \$22.5M impact from license and maintenance attrition.
 - **RPO \$450M-\$550M (key metric due subscription migration). Confident in ability to achieve high-end**

MDB Q421 Conference Call (3/9/21):

- Sign a partnership with IBM
- **Revenue \$171M up 38% y/y**, Street \$157M
- ARR growth greater than 120%

MSFT FQ321 Conf. Call (4/27/21)

- Rev \$41.7B up 19% y/y as reported and 16% y/y in CC. Street \$40.83B
 - **Productivity and Business Processes** \$13.6B up 15% y/y as reported and up **12% in CC** (Office 365 and LinkedIn drove results)
 - **Dynamics products/cloud services** grew **22% y/y in CC**
 - **Dynamic 365 revs** were up 40% y/y in CC (**CRM?**)
 - Commercial booking growth 39% y/y as reported and **38% y/y in CC**
 - **Intelligent Cloud \$15.1B** up 23% as reported and **20% y/y in CC**
 - **Personal Computing** \$13B up 19% as reported and up **16% y/y in CC (peak?)**
 - Gaming (Xbox) revenue increased 32% y/y in CC

NOW FQ121 Conf. Call 4/28/21

- Total Revs \$1.36B up 30% y/y and 26% y/y in CC, street \$1.34B
- **EPS \$1.52 vs street at \$1.35**
- FY21 (if you don't exceed=>you're down 8%)
 - **Subscription Revenue** guided from \$5.48-\$5.5B up 28% y/y to \$5.455-\$5.47B up 27% to 28% y/y
 - **Subscription billings** guided from \$6.205B-\$6.225B to \$6.19B-\$6.205B up 24% to 25% y/y

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Key Q121 Reports

Software continued (positive prints but it all about the 10 year and potential multiple adjustments. FCF MATTERS)

OKTA Q421 (Conference call 3/3/21)

- Announced agreement to acquire Auth0 – a leading identify platform for application teams. Cloud native company for \$6.5B
 - Rev. \$234.7M up 40% y/y, Street \$221.8M
- FY22
 - Rev raised to \$1.08B-\$1.09B, growth of 29%-30% y/y, Street \$1.07B
 - Believe Current RPO is going to outpace rev growth.
 - Op loss of (\$61M) to (\$55M)
 - Increased head count in S&M (Specifically International) and R&D
 - EPS to (\$.49)-(\$.44), Street (\$.02)

ORCL FQ321 Conf. Call (3/10/21)

- (+) Oracle Cloud Infrastructure (OCI) grew 123%. Cloud consumption up 200% (off a small base)
- (+) Autonomous Cloud Data base (now on Version 2). Starting to inflect with 55% growth

PTC Q221 4/28/21 Conference Call

- **Revenue \$461.8M up 22% y/y in CC. Street \$416M**
- ARR was \$1.39B up 15% y/y in CC, Street \$1.38B
- FY21 guide:
 - Macro stable, expecting 2H21 to improve
 - **ARR up to \$1.445B - \$1.77B** (Previously \$1.47B - \$1.5B)
- Rev guided up to \$1.71B-\$1.74B, growth of 17%-19% (Previously \$1.69B-\$1.73B, 16%-19%), Street of \$1.71B
- **EPS guided up \$3.18-\$3.39 (Previously \$3.05-\$3.25), Street at \$3.17**

SPLK FQ421 CC 3/3/21:

- **Revenue \$775M down 6% y/y street \$677M. Reminder:**
- SPLK has moved to a recurring rev model vs license.
- **ARR was \$2.365B vs \$2.067B q/q and \$1.68B y/y or up 41% y/y**
- Cloud as a percentage of software bookings was 51% up from 46% q/q and up from 42% y/y

VEEV FQ421CC 3/2/21

- **Revenue \$396.8M up 27% y/y, Street \$380.2M**
- (+) Pleased with traction in Vault family (\$6B TAM). Faster up-take in add-ons
 - More than 850 Vault customers overall

Key Q121 Reports

Software continued (positive prints but it all about the 10 year and potential multiple adjustments. FCF MATTERS)

AKAM Q121 Earnings Conf. Call (5/4/21)

- (+) CDN portfolio showed very strong traffic growth.
- Led by OTT video services and downloads of e-gaming software.
- (+) Continued rapid growth of security business (up 29% y/y)
- Rev \$843.7M up 10% y/y as reported and 8% in CC, Street \$829.4M
 - Security Tech Group \$310M, up 29% y/y, and up 27% in CC
- EPS \$1.38 up 15% y/y, Street \$1.30
- CFO \$250M (30% of rev)
- Q221 Guide: Revenue \$839M-\$853M up 3%-5% y/y in CC. Street at \$839.5M

RNG Q121 CC 5/4/21 (Chart damage extensive)

- RNG solution of Voice, Video, Messaging and Video (RCV)=>\$50B TAM
 - **MSFT**: RNG feels good about UCaaS as well a CCaaS integration. Talked about a 7K direct routing win.
 - **ZM**: RNG claimed more scale and distribution leverage (RNG a competitor to ZM)
- **Total ARR at \$1.407B up 37% y/y** (strong across the board due to Avaya leverage).
- **RNG Central Office (UCaaS and CCaaS) ARR was \$1.322B up 40% y/y**
- **(+) Direct/Partner ARR: \$817M was up 33% y/y**
- **(+) Channel \$505M up 53% y/y**
- **(+) Mid-Market \$792M up 51% y/y**
- **(+) Enterprise (\$100K ARR) ARR of \$515M, grew 62% y/y** (seeing larger deal sizes due to Covid and partner leverage)
- Pipeline is the highest they have seen (April robust)
- **Rev. \$352.4M up 32% y/y** (guide \$337-\$340M or 26% to 27% growth). Street \$339.4M.
 - **Quarter more backend weighted due to enterprise.**
 - **Software Subscription rev (92%) was \$324M (guided \$311.5M-\$313.5M) up 34% y/y**
- **EPS .27 (guided \$.24-\$.25) vs the street at \$.25**

Key Q121 Reports

Software continued (positive prints but it all about the 10 year and potential multiple adjustments. FCF MATTERS)

WK Q121 (Conference call 5/4/21)

- (+) One-year delay of ESEF mandate has had no material impact on outlook for EMEA. Tracking as expected (very optimistic over long term)
- The Biden administration move to more regulation (XPRL) a tailwind.
- **(++) Expanding into ESG reporting. A natural extension to financial data (another EU mandate that will impact 50K companies in the EU).**

Material TAM expansion

- Revenue \$104.2M up 21.5% y/y, Street \$100.4M
- EPS \$.12, Street \$.07
- Cash from Ops \$11.5M vs \$4.8M y/y

HUBS Q121 Conf. Call 5/5/21

- (+) Growth accelerated due startups and existing companies transition to a digital CRM and marketing architectures (Covid accelerated)
- Now has two engines Marketing Hub and Sales (CRM) hub.
- Revenue \$281.4M up 41% y/y as reported and 37% y/y in CC, Street \$264M
- EPS \$.34, Street at .29
- Calculated Billing were \$304M up 43% as reported and up 47% y/y in CC

TWLO Q121 Earnings Conf. Call (5/5/21) Chart damage extensive

- Chief Product Officer Chee Chew leaving TWLO
 - Splitting R&D into 3 new segments (Communication, Data and Core)
- Rev \$590M (guide \$526M-\$536M) was up 62% y/y vs. street \$534M.
 - Segment contributed \$45M in revs, Ex of Segment organic growth was 49% y/y
- EPS \$.05 vs. street (\$.10)
- Cash \$5.7B
- Revenue dollar-based retention was 133%
- CFO \$4.5M
- Q221 Guide (only providing quarterly guide)
 - Revenue \$591M-\$601M, up 47%-50% y/y vs. street \$571M
 - Non-GAAP loss from ops (\$27M) - (\$22M)
- Non-GAAP EPS (\$0.16) – (\$0.13), below street (\$0.05) at the midpoint

Key Q121 Reports

Software continued (positive prints but it all about the 10 year and potential multiple adjustments. FCF MATTERS)

NET Q121 Conf Call 5/6/21 (Chart damage=>50 and 100 day violated)

- Upside in the quarter due to new customer and new products
- Rev \$138M up 51% y/y , street \$131M
 - NA 52% rev and increased 61% y/y
 - International 48% revs
 - Europe very strong at 26% rev, up 54% y/y
 - APAC 16% revs up 30% y/y
 - Affected industries only made up 7% of revs in Q4. Trends improving
- Net Dollar base retention was 123% vs 117% y/y
- FQ221 Guide
 - Rev guided to \$145.5M-\$146.5M up 46% to 47%. Street \$139M
- 2021 Guide
 - Rev guided to \$612M-\$616M 42% to 43% y/y. Street \$593M

High valuation software has been hit due to the 10-year interest rate inflection

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Updated	5/6/21				
High Valuation SaaS	Interim Peak EV/Revs (2/22/21)	EV/Revs (5/6/21)	Companies that have increased opex	Change from 2/22/21 to 4/6/21	Short Interest
SNOW	54.5	42.1		-22.8%	3.5%
BILL	52.1	38.4		-26.3%	9.6%
SHOP	44.9	26.7	X	-40.5%	1.6%
CRWD	41.7	28.1	X	-32.6%	4.9%
ZS	39.8	27.8	X	-30.2%	6.0%
COUP	39.7	23.9		-39.8%	10.0%
NET	36.6	35.3	X	-3.6%	5.7%
ZM	33.9	20.6		-39.2%	3.8%
OKTA	32.8	29.2	X	-11.0%	4.6%
DDOG	32.8	24	X	-26.8%	7.1x%
NCNO	30	18.8	X	-37.3%	5.6%
TEAM	28.2	22.4		-20.6%	4.7%
TWLO	28	18.5	X	-33.9%	3.7%
RNG	26.4	15.7		-40.5%	6.7%
VEEV	25.8	20		-22.5%	1.3%
DOCU	25.8	17.2		-33.3%	2.6%
FIVN	24.2	18.7	X	-22.7%	4.3%
SPT	23.3	15.5		-33.5%	2.1%
FSLY	23.2	14.9	X	-35.8%	21.1%
PAYC	21.3	14.5		-31.9%	2.1%
PLAN	20.6	12.7		-38.3%	11.0%
WORK	20.6				
AVLR	20	14.9		-25.5%	2.4%
ESTC	19.7	12.4		-37.1%	14.3%
ASAN	18	14.7	X	-18.3%	2.8%
SMAR	19.1	11.4	X	-40.3%	2.8%
HUBS	18.9	16.3	X	-13.8%	3.6%
NOW	17.6	13.9		-21.0%	1.4%
BL	16.5	13.5	X	-18.2%	9.2%

High Valuation SaaS	Interim Peak EV/Revs (2/22/21)	EV/Revs (4/14/21)	Companies that have increased opex	Change from 2/22/21 to 4/6/21	Short Interest
EVBG	16.1	11.7	X	-27.3%	10.9%
APPF	15.8	12.5		-20.9%	7.0%
PCTY	15.5	13		-16.1%	1.8%
PD	14.9	9.9	X	-33.6%	12.7%
Q TWO	14.8	9.8		-33.8%	9.2%
WIX	14.7	11.2		-23.8%	3.3%
ADBE	14.4	13.6		-5.6%	1.1%
WK	13.6	9.1	X	-33.1%	9.1%
ZEN	12.7	10.8		-15.0%	6.0%
WDAY	12.7	11.8		-7.1%	4.2%
SPLK	10.6	7.4		-30.2%	3.9%
PYPL	11.6	10.1		-12.9%	1.3%
MDLA	11.6	6.5	X	-44.0%	13.3%
SQ	8.9	6.9		-22.5%	8.6%
DOMO	8.6	7		-18.6%	7.7%
QLYS	8.6	7.7	X	-10.5%	16.3%
CRM	8.5	6.8		-20.0%	2.2%
TENB	8	6.1		-23.8%	3.7%
RP	7.3				
PS	6.7				
PFPT	6.3	7.5		19.0%	4.2%
NEW R	5.1	4.9		-2.7%	12.6%
High short Interest		16.3	Average	-25.6%	
Low short interest					

Key Q121 Reports

AI/ML (new models emerging, the genie out of the bottle)

SNOW Q421 (Conference call 3/3/21)

- Rev. \$190M up 117% y/y, Street \$147.6M
 - Product revs of \$178M was up 116% y/y (95% revs)
 - Not a SaaS model. 93% of revs consumption based with contract durations expanding
- Total customers grew to 4,139 up 73% y/y
- 77 customers (up from 65 q/q) with revs >\$1M revs, up 88% y/y
- Now have 5 customers with a \$5M TTM revs

UCaaS/Collaboration Software (long runway)

FIVN Q121 4/29/21

- (+) Seeing strong traction with **MSFT** and **ZM** relationships
- (+) Partnership with **AT&T** on track and ramping. Should continue to expand.
- Inference Solutions acquisition gaining traction (Second quarter). Increased adoption rate
- Pipeline at an all-time high
- Revenue \$137.9M up 45% y/y, Street \$122.6M

ZM Q421 CC 3/1/21

- Rev. \$882M up 369% y/y above guided range of \$806M-\$811M. Street \$810M.
- **ZM phone** customers with >10 employees grew from 2,900 in FY20 to 10,700 in FY21
- **FCF: \$378M vs \$26.6M y/y**

Key Q121 Reports

E-Commerce (Covid has driven secular changes in retail. The perfect tailwind of *stimulus and COVID compares*)

AMZN Q121Conf. Call 4/29/21

- Net sales \$108.5B (guide \$100B - \$106B) up 44% y/y as reported and 41% y/y in CC. Street \$104.6B.

North American Metric

- NA segment sales \$64..4B (59% revs) up 39% y/y in CC
- Op margin 5.4% vs 2.8% y/y

International Metrics

- International \$30.65B (28% revs) up 60% y/y as reported and 50% in CC
- Op margin 4.1% vs (2.1%) y/y

Amazon Web Service (AWS) metrics (SCALE)

- Amazon Web Services \$13.5B (13% revs) up 32% y/y as reported and 32% CC
- TTM run rate \$48.64B. Annualized run rate \$54B.
- Backlog \$52.9B up 55% (cost superior, better security)

EBAY Q121Conf. Call 4/29/21

- US grew 36% y/y (*Stimulus*) vs International growth of 17% y/y

SHOP Q121 4/28/21 conf call

- Rev. \$988.6M up 110% y/y, Street \$859.4M
 - Subscription Solutions rev. \$320.7M up 71% y/y
 - Driven primarily by growth in MRR, driven by increase in number of merchants.
 - MRR of Shopify Plus 26% of subscriptions
 - Merchant Solutions rev. \$668M up 137% y/y
- EPS \$2.01, Street \$0.74

MELI Q121Conf. Call 5/5/21

- Net sales \$1.38B up 111% y/y in CC. Street \$1.14B.

Key Q121 Reports

E-Commerce (Covid has driven secular changes in retail. The perfect tailwind of *stimulus and COVID compares*)

W Q121 Conference Call (5/6/21)

- Hard to model stimulus and reopen trade and the effect on the model.
- Stimulus impact seen as “mild” in January-March.
- First round of stimulus was 100% online, 2nd round bricks and mortar benefitted.
- Savings rates also much higher
- Up against a brutal comparison in Q2 (Q220 spike in demand associated with Covid)
- **Revenue \$3.48B, up 49.2/% y/y, Street \$3.35B**
 - US \$2.8B, up 42.8% y/y
 - International \$700M, up 85% as reported and up 73% y/y in CC
- **EPS \$1.00, Street \$.21**
- Q2 the toughest quarter to forecast (consensus negative 7-8% revs growth y/y). Q2 a “guess”

Key Q121 Reports

Internet (Digital advertising up)

FB Q121 Conf. Call 4/28/21

- Rev \$26.17B, Street \$23.73B, up 48% y/y => Benefited from currency tailwind
 - Advertising \$25.44B up 46% y/y, Street \$23.3B

NFLX Q121 Conference Call 4/20/21

- Paid memberships were up 13.6% y/y to 207.6M (forecasted 210M)
- Global sub adds totaled 3.98M vs 8.51M q/q, guidance of 6M (miss) and 15.77M y/y

GOOG Q121 CC 4/27/21

- Consolidated Revenue \$55.3B up 34% y/y as reported and up 32% in CC vs the street of \$51.4B
 - GOOG Search \$31.9B was up 34% y/y
 - Online advertising very strong (brand and direct response vs linear TV which is in decline)
 - YouTube \$6B up 49% y/y
 - Usage up materially
 - Brand advertising improved q/q
 - GOOG Network \$6.8B was up 30% y/y
 - GOOG Cloud of \$4B grew 46% y/y

Key Q121 Reports**Semiconductors** (*Peak of the cycle, game of chicken on who moves off the trade first*)**AMD Q121 4/27/21 Conf. Call**

- Revenue \$3.45B up 6% q/q and up 93% y/y Street \$3.2B
 - **Compute and Graphics (60.8% revs) \$2.1B up 7% q/q and up 46% y/y**
 - **Enterprise, Embedded, Semi-Custom (39.2% of revs) \$1.35B was up 5% q/q and up 286% y/y.**
 - Record server sales (strength across HPC, Hyperscale and Enterprise servers)
 - EPYC (Rome) share gains evident.
 - **Very positive on follow on Milan server offering (100 new platforms=>share gains evident across hyperscale and HPC)**

INTC Q121 4/22/21

- Client Computing Group (54.7% revs) \$10.6B was up 8% y/y,
 - Record rev on increased platform volume, **PC volumes up 38% y/y=>PEAK**
 - **Notebook revs up 19% y/y**, with ASP were down 23% y/y (more consumer/entry mix) PEAK
 - Desktop revs down 7% y/y, ASP down 5% y/y
- **Datacenter Group (30.5%) rev. \$5.6B declined 20% y/y,**
 - **"Will be very aggressive on market share . Will fight for every socket." (price)**
 - 4th quarter of data center digestion (share loss). Claiming Q121 the bottom. , NVDA not seeing digestion.
 - **Unit volumes down 13% y/y**
 - **ASP's down 14% y/y**
- **Cloud Service Providers down 29% y/y**
- Comm/Service Providers up 5% y/y
- **Enterprise/Govt declined 20% y/y**
- **Op Margin 23% vs 50% y/y**

Key Q121 Reports

Semiconductors continued (Peak of the cycle, game of chicken on who moves off the trade first)

MU Conf. Call FQ221 (3/31/21)

- **DRAM \$4.43B (71% of revenue)** up 10% q/q and up 44% y/y
- (+) Strong demand across all end-market segments
- **Expect CY21 bit growth of 20%. Prior guidance of high teens**
- **Industry DRAM supply to be below demand. Severe undersupply causing DRAM prices to increase rapidly**

NVDA's GTC keynote/Analyst day 3/12/21

- **NVDA now enabling AI across every industry.** Gaming still robust
- **Data Center (38% revs)**
 - For FY21, Revenue grew 124% y/y in FY21 to \$6.7B
- **Gaming (50% of revs) I**
 - n FY21 Gaming was \$7.8B up 41% y/y.
- NVDA's single architecture a major competitive advantage. Software that is now about to be monetized.
- **Application frameworks**
 - **DRIVE**=>Auto (will inflect in 2026 and beyond)
 - **Jarvis**=>Natural Language
 - **CLARA**=>Drug Discovery
 - **Aerial**=>5G
 - **Morpheus**=>Security/Zero trust
 - **GeForce NOW**=>cloud gaming
 - **cuQUANTUM**=>quantum computing
 - **MAXINE**=>video conferencing
 - **METROPOLIS**=>smart city
 - **ISSAC**=>robotics
 - **MERLIN**=>deep learning

NXPI Q121, 4/27/21 CC:

- Reminder: NXPI targeting the Auto (ADAS/EV), industrial IOT, Mobile (features) and Comm. Infrastructure end markets
- **(+) Auto commentary: targeting ADAS/electrification (~44% revs), 3-year CAGR previously guided to 7-10%**
 - **Revs of \$1.23B was up 3% q/q and up 24% y/y, \$13M great than mid-point.**
 - NXPI can't meet supply due to robust order and drained inventory levels at Auto OEM
- **(+) Industrial /IOT commentary (21% revs), 3-year CAGR previously guided to 8-11%**
 - **Revs of \$571M was up 12% q/q but up 52% y/y. \$13M great than mid-point.**
- **(+) Mobile (14% revs), 3-year CAGR previously guided to 4-6%**
 - **Revs of \$346M was down 15% q/q but up 40% y/y, in line with guide**
- **(-) Communications commentary (20% revs), 3-year CAGR previously guided to 0-2%**
 - **Revs of \$421M was up 7% q/q and down 4% y/y**



Key Q121 Reports**Semiconductors continued** (*Peak of the cycle, game of chicken on who moves off the trade first*)**QCOM FQ221 Conf. Call 4/28/21**

- QCT: Revenue \$6.281B up 53% y/y vs guide of \$6B-\$6.5B
 - **Handset \$4.06B up 53% y/y (China strong)**
 - **RF Front End \$903M up 39% y/y**
 - **Auto \$240M up 40% y/y due to OEM recovery**
 - **IoT \$1.073B up 71% y/y**
- **QTL: Revenue \$1.614B up 51% y/y vs guided \$1.25B-\$1.45B**
 - China strong, more units
 - **Benefits from the \$80M royalty true up in the quarter**
 - **EBT Margin 74% vs 63% y/y (guided 66%-70%)**

TXN Q121, 4/27/21 Conf. Call

- **Rev \$4.29B up 5% q/q and up 29% y/y, Street \$3.98B**
 - Strong demand in auto, personal electronic, and industrial
 - 90% of rev coming from shipments outside of U.S.
 - ~20% of rev are based by customers in China
 - Auto and Industrial made up ~57% revs
- **Industrial: 37% revs**
 - In Q121 Industrial was up 20% q/q and up 30% y/y
- **Auto 20% revs**
 - **Continues to rebound (bottom in cycle was in Q220)**
 - In Q121 Auto was flat q/q and up 25% y/y
- **Personal Electronics 27% revs**
- **Q221 Guide:**
 - **Rev \$4.13B-\$4.47B, Street \$4.14B flat q/q**
 - A fair amount of question on why Q221 guided flat q/q vs historical seasonal trends.

Key Q121 Reports

Semiconductors continued (*Peak of the cycle, game of chicken on who moves off the trade first*)

ON Q121 Conf. call 5/3/21

- (+) The global macro improved, inventories are lean, and the auto market had a steep recovery. Looking for above seasonal demand trends in the near term. Currently constrained due to demand velocity. (+) Passing on price increases and raising price on high value products.
- ON is now entering into longer term contracts with customers (like MCHP)
- Foundry manufacturing short (specially in CMOS image sensing)
- **Supply/demand balance projected to be more in balance by the end of the year.**
 - (+) Q2 will be above seasonal, up 9% q/q
 - **Q3 will be below seasonal due to a very tough q/q comp Q220 (up 9% q/q)**
 - **Normal seasonality in Q4**
- **Rev \$1.482B up 16% y/y vs. street \$1.46B**
 - **Auto \$515M (35% of revs) was a record and up 5% q/q and up 16.4% y/y**
 - **Industrial/Military/Aero \$370.7M (25% of revs) was up 16.7% y/y (up 22% ex of geopolitical impacts)**
- **GM 35.2% vs 34.4% q/q and 31.5% y/y**

LSCC Q121 CC 5/4/21

- **Revs \$116M-\$124M, Street \$111.4M**
 - **Communication/Compute (43% revs)**
 - **Revs up 28% y/y and 7% q/q**
 - **Industrial and Auto (43% revs)**
 - **Rev grew 20% y/y and 9% q/q**
 - **Consumer (10% revs)**
 - **Rev up 14% q/q, but down 6% y/y**
- **EPS \$.22, Street \$.19**

Key Q121 Reports

Semiconductors continued (Peak of the cycle, game of chicken on who moves off the trade first)

MPWR Q121 CC 5/5/21

- Rev. \$254.5M **up 9.2% q/q and 53.5% y/y**, street 242M
 - **Computing /Storage (26.5% revs) \$67.5M up 29.9% y/y**
 - Notebooks and storage strong
 - **Data center growth will pick up in Q2 (Significant growth in 48 volt (GPU and AI))**
 - **Automotive (17.6% revs) \$44.9M up 92.5% y/y** (out growing SAR materially)
 - Auto infotainment/connectivity, security, smart meters
 - Auto voltage transitioning from CPU to GPU. 48 volts=>MPWR solution – high end cars still happen (AI)
 - **Industrial (15.6% revs) \$39.8M up 57.7% y/y**
 - Power, security, smart meters
 - **Communication (14.2% revs) \$36.1M up 29.4% y/y**
 - Competed high current programmable power modules for communication.
 - Broad 5G exposures
 - **Consumer /Storage (26% revs) \$66.2M up 77.1% y/y**
 - **EPS \$1.46, Street \$1.34**

QRVO Q421 CC 5/5/21– metrics per company call:

- **5G base station deployments moderated due to China.**
- **Revenue \$1.073B down 2% q/q and 36% y/y, Street \$1.04B**
 - **(+) Mobile Products \$808M up 45% y/y**
 - **(+) IDP achieved \$265M up 14% y/y (strong WiFi 6)**
- **GM 52.6% vs. 54.4% q/q and 49.6% y/y**
 - **Better pricing (market firm now but will moderate in FY22) and better manufacturing leverage/utilization).**
- **EPS \$2.74 vs. Street \$2.43**

Key Q121 Reports

Semiconductors continued (Peak of the cycle, game of chicken on who moves off the trade first)

IIVI Q321 CC 5/6/21

- (+) Talked up AAPL press release of committing \$410M of advanced manufacturing fund for long term supply (3D sensing, AR/VR). Represent a future commitment of purchasing (similar of the AAPL relationship with FNSR in 2017)
- (+) Talked up leverage across Indium Phosphide and Silicon Carbide (5% revs) up materially=>Auto EV and 5G
- (+) Global growth inflected for optical due to mega trends.
 - (+) 5G a major driver (Global and long-term builds)
 - (+) Data Center (hyperscale/AI) strong (DCI and inter-datacenter)
 - (+) 3D VCEL strong . Claimed share gains vs LITE
 - 3D doubled y/y
- Proforma Rev \$783.2M up 25% y/y vs the Street \$772M
- Adjusted EPS \$.91 vs Street \$.87.
- Guide Q421
- Rev \$752M - \$802M, street \$795M
- EPS \$.63 to \$.83vs street \$.92

MCHP Q421 5/6/21

- (+) Management has not seen constraints this acute over their 40+-year careers.
- (+) Supply/Demand imbalance worsened in FQ421 (March). Shortages in EVERY SINGLE segment , not just Auto (Auto OEM's just got it wrong).
- Growth not impact not by orders, growth now influenced by how much MCHP can manufacture.
- Rev. \$1.47B was up 8.5% q/q and up 10.6% y/y. Street \$1.46B
- EPS \$1.85 (guide was for \$1.67-\$1.79) vs. street \$1.74.
- Distribution DOI declined from 120 days to 112 days.
- Targeted DOI of ~115-120 days
- inventory declined from 26 days to 22 days q/q (a historic low)
- Dist inventory still well below normal distribution levels in the channel (31-45 days the normal range)

Key Q121 Reports**Semi Cap/Foundry (A secular move to 5nm and below)****ASML Q121 CC 4/21/21**

- (+) Macro Drivers AI/ML, HPC, Big Data and 5G. Customers short of semi-inventory
- **(+) Saw a significant increase in demand q/q. Revenues now expected to be up 30% y/y in 2021.**
- **Now looking for logic growth to increase from 10% to 30% (think INTC, AMD)**
- **Now looking for memory growth to increase from 20% to 50% (think DRAM and MU)**
- **2021 (sold out)**
- **Looking for revs to growth of ~30% y/y (2H21 will be strong)**
- **GM raised from 48%-50% to 51%-52% (higher DPUV mix)**

LRCX Q321 CC 4/21/21

- (+) For 2021, WFE is expected to be greater than \$75B with the 2H21>1H21 (logic and memory). The previous estimate for 2021 was in the \$68B-\$70B range due to chamber expansions and services and spars. Seeing very strong pricing. 2nd year of very strong growth (street focused on the 2 year cycle peak. To early to predict 2022.
 - China will be greater than 17% of WFE in 2021.
- **Non-Volatile Memory (NAND) 48% vs 51% revs q/q=>strong**
- **DRAM 14% vs 17% revs q/q**
- **Foundry 31% revs 26% revs q/q**
- The highest results in LRCX history due to 7nm, 5nm and future 3nm node transitions
- **China spend (32% revs)=>major area of investor focus (~10B of WFE)**

TSM Q121 Conference Call: 4/15/21

- (+) For 2021, TSM is now looking for the Semi industry ex of memory to 12%, up from ~8% previously.
- (+) For 2021, Foundry growth increased from 10% to 16% y/y. TSM is expected to grow 20% up from 15% y/y previously due to 5G build outs and HPC.
- **Shortages will persist throughout 2021 and possible into 2022 (in Q&A TSM stated it will ~ 18 months (implied August of 2022) for supply to start to normalize)**
 - **Excess capacity will not be available until 2023 due to equipment lead times.**
- **Revs \$12.92B USD (guide was \$12.4B-\$12.7B) up 1.9% q/q and up 25.4% y/y.**
- (+/-) Smartphone (45% revs) was down 11% q/q (milder seasonality)
- (+) HPC (35% revs) and was up 14% q/q

TER FQ121 Conference Call (4/28/21)

- **Semi Test: \$528M up 9% y/y (68% revs)**
 - **2021 SOC market size raised from \$3.55B to \$4B to \$4.4B with CAGR increasing from 8% to 16% growth.**

Key Q121 Reports**Tech Bellwethers (WFH, LFH, PFH, Covid pulls in)****AAPL Q221 Conf. Call 4/28/21**

- Revenue \$89.6B (record) up 54% y/y vs. street \$76.8B
 - iPhones (53% of revs):
 - Revenue \$47.9B up 66% y/y
 - Macs (10% rev.): **LFH , WFH, PFH**
 - Revenue \$9.1B was up **70% y/y**.
 - iPad (8.7% rev.): **LFH , WFH, PFH**
 - Revenue \$7.8B up **79% y/y** (like Mac, covid pull in)
 - Services: 18.9% on revs
 - Revenue \$16.9B up 27% y/y
 - Subs now at 660M up 145M y/y
 - Wearable, Home, Accessories (8.7% of rev):
 - Rev. \$7.8B up 25% y/y
- EPS \$1.40 vs street of \$.98

Telecom (monitor a positive 2H21)**CIEN FQ121 (July) CC 3/4/21**

- Macros=>Cloud, Data Center, IOT, Deep Fiber (Cable/MSO) and 5G driving demand
- (-) For the 3rd straight quarter, Covid now having an impact on CIEN, specifically in new business and extending the time frame for integration (taking longer to execute on projects).
- CIEN estimates the slowdown will continue into the 1HF21 and then improve in the 2HFY21.
 - Implied Tier 1 carriers: capacity adds (VZ, T, DT) moderating=>2H21 better
 - Implied Cable MSO 1H20 spend across Comcast and Charter moderating (think cord cutting)
- Rev \$757.1M (guide \$735M-\$765M) down 9.1% y/y vs. street \$750M

Key Q121 Reports

Tech Bellwethers (WFH, LFH, PFH, Cobid pulls in)

CDW Q121 Conf. Call (5/5/21)

- Revenue \$4.87B up 10.2% y/y as reported and up 10.9% y/y in CC, Street \$4.58B
 - **Corporate \$1.8B (37% revs) down 5.5% y/y**
 - **Small Business \$433M (9% revs) up 10.5% y/y**
 - **Public \$1.922B (39% revs) up 26% y/y**
 - **Govt. (11% revs) at \$516M (11% revs) declined 9.2% y/y** (US Census project=>does not repeat in 2021)
 - **Education of \$943M (19% revs) up 98.1% y/y** (Learn from Home=>second quarter on 100% growth, unusually strong=>repeatable?)
 - **Healthcare revs (10% revs) of \$462M down 3.8% y/y**
 - **Other (11.6% revs) \$677M up 20.7% y/y**
 - UK (EU) up double-digit y/y
 - Canada up 8% due to SMB and Energy
- **Gross margin 16.4% vs 17.2% y/y**
- Pricing pressure: less vendor rebates and higher NB prices due to component shortages
- **Product mix worse=>more notebook/chrome books, less software which was termed as “lumpy”**

Key Q121 Reports**Tech Bellwethers (WFH, LFH, PFH, Covid pulls in)****Telecom (monitor a positive 2H21)****CIEN FQ121 (July) CC 3/4/21**

- Macros=>Cloud, Data Center, IOT, Deep Fiber (Cable/MSO) and 5G driving demand
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- Rev \$757.1M (guide \$735M-\$765M) down 9.1% y/y vs. street \$750M

ANET Q121 5/4/21

- (-) Seeing material supply disruptions, “never been this bad” (the street is VERY focused on double ordering)
 - Most popular products lead times will be still extended due to the lack of some key components. Some components out 52 weeks so facing extended lead time.
- (+) Talked up 2021, due to an improved outlook from Cloud Titans.
 - ANET has ~5-7 Titans with MSFT and FB the top 2
 - Now seeing deployment of 400G in 2H21
- #1 Cloud Titan =>35%-39% revs down from 37% in Q3 and 40% of revs in Q2 (down y/y)
- #2 and #3: Enterprise and Financial Verticals=>35%-39% revs
- #4 and #5: Vertical: Service Provider and Tier 2 provider => 25%-30% revs
- Revenue \$667.6M (guided to \$630M - \$650M) up 2.9% q/q and up 27.6% y/y. Street \$642M
- EPS \$2.50 vs Street \$2.38

The **Miss** list The street was overweight Semis, Software and Internet

[illegible]

The Exceed list The street was overweight Semis, Software and Internet

4/6/21	Companies that exceeded Q121 or guided up Q221								NEW	
<u>Networking and Storage</u>	<u>Semiconductors</u>		<u>Software</u>		<u>Internet</u>		<u>Hardware, Diversified, Services</u>		<u>Impacted by COVID</u>	<u>Affected Industry Exposures</u>
ANET	AMD	X	AKAM		AMZN	X	AAPL		ACN	20%
CALX	ASML		ALRM		CARG		ACN		AKAM	20%
CVLT	DIOD		AVLR		CVNA		CDW		AYX	31%
NOK	HIMX		BAND		EXPE		CRSR		BL	25%
TDC	KLAC		BILL		FB		CMCSA		CYBR	15%
	LCSS		BLKB		GOOG		CTSH		EGHT	15%
	LRCX		CDNS	X	LYFT		DISH		EVBG	18%
	MCHP		CHKP		MTCH		FIS		FIVN	15%
	MPWR	X	DBX		ROKU		IBM		FSLY	4%
	MTSI		DDOG		SSTK		IPGP		IBM	30%
	MU		FIVN		SQ		GLW		ORCL	20%
	MXIM		FTNT		YELP		GPN		MANH	17%
	MXL		HUBS		ZG		TSLA		MDLA	30%
	NXPI		LPSN				ZBRA		NET	10%
	ON		MANH						NEWR	20%
	QCOM	X	MSFT						PD	7%
	QRVO		NET	X					PFPT	20%
	SIMO		NCNO						PRO	45%
	STM		NOW	X					RPD	15%
	SWKS		PAYC						SWI	15%
	TSM		PCTY						TWLO	10%
	TXN		PYPL						VG	20%
	VSH		RNG	X					WDAY	15%
	WDC		RPD						WORK	15%
	XLNX		SAP						>20% C19 industries	
			SWI							
			TEAM							
			TWOU							
			TWLO	X						
			TYL							
			VRNS							
			WK							
			XM							



Focus names for the 1H21

4/14/21	Companies that exceeded Q420 or guided up Q121										
<u>Networking/Storage</u>	<u>Semiconductors</u>	<u>Software</u>	<u>Internet</u>	<u>Hardware, Diversified, Services</u>	<u>NEW</u>	<u>Impacted by COVID</u>	<u>Affected Industry Exposures</u>				
ACIA	AMAT	AKAM	AMZN	AAPL	ACN	20%					
ANET	AMBA	APPN	CHGG	ACN	AKAM	20%					
BAND	AMD	AZPN	GDDY	AVT	AYX	31%					
CSCO	APH	CRWD	GOOG	CDW	BL	25%					
CALX	CDNS	CSOD	NFLX	CRSR	CYBR	15%					
CLEN	CRUS	DDOG	PINS	FISV	EGHT	15%					
COHR	DIOD	EVER	PS	GLW	EVBG	18%					
DBX	HIMX	FIVN	ROKU	GPN	FIVN	15%					
EXTR	INTC	FTNT	SHOP	GRMN	FSLY	4%					
FFIV	KN	HUBS	SPT	HPE	IBM	30%					
FN	LFUS	INTU	TTD	INFY	ORCL	20%					
LITE	LRCX	MANH	TWTR	KEYS	MANH	17%					
VIAV	LSCC	MODN	WIX	LOGI	MDLA	30%					
	MCHP	MSFT	ZG	PI	NET	10%					
	MPWR	NET		PLXS	NEWR	20%					
	MU	NEWR		SONO	PD	7%					
	NVDA	NOW		TATA	PFPT	20%					
	NXPI	NTNX		VOXX	PRO	45%					
	ON	ORCL		WIT	RPD	15%					
	QCOM	PANW			SWI	15%					
	QRVO	PAYC			TWLO	10%					
	SWKS	PLTR			VG	20%					
	XLNX	PTC			WDAY	15%					
	STM	RNG			WORK	15%					
	SNPS	SAIL			>20% C19 industries						
	TER	SAP									
	TXN	SMAR									
	WDC	SPLK									
		TWLO									
		TWOU									
		VEEV									
		VRNS									
		WK									
		ZEN									
		ZM									
		ZS									

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Geo exposure: The focus is on non-US Covid lockdowns



	Total Intl. Revs	EMEA % Revs	APac % Revs	China Revs	Huawei breaked out of China Revs
AAPL	55%	24%	15%	16%	
ACN	52%	32%	20%		
ADI				22%	3%
ADSK	57%	39%	18%		
AMAT	63%	5%	58%	29%	
AMZN	26%	26%			
ANET	20%	20%			
ANSS	53%	25%	28%	4%	
ASML	78%		59%	19%	
AYX	26%	26%			
CDNS	56%	18%	26%	12%	
CDW	13%	13%			
CHKP	54%	42%	12%		
CIEN	27%	16%	11%		
CRM	30%	21%	9%		
CRWD	27%	14%	13%		
CSCO	41%	26%	15%		
CTSH	24%	18%	6%		
CYBR	39%	28%	11%		
FB	52%	24%	28%		
FFIV	43%	24%	19%		
FTNT	58%	37%	21%		
GOOG	47%	30%	18%		
HPE	60%	37%	10%	13%	
HPQ	66%	37%	29%		
HUBS	42%	42%			
IBM	47%	31%	16%	6%	

IIVI				27%	7%
INTC				22%	
INFY	38%	24%	14%		
IPHI				40%	0%
JNPR	44%	28%	16%		
KEYS	58%	16%	22%	20%	3%
KN				22%	
LITE				25%	0%
LRCX	85%		51%	34%	
LSCC					3%
MPWR					5%
MU				30%	
NPTN				49%	
NOW	34%	25%	9%		
NTNX	44%	24%	20%		
NVDA				~22%	
ON	86%	18%	58%	10%	
ORCL	45%	28%	17%		
PANW	31%	19%	12%		
PTC	57%	37%	20%		
QCOM				48%	7%
QRVO				30%	
RNG	38%	24%	14%		
SAP	58%	43%	15%		
SNPS	52%	10%	42%	20%	
SMTC				19%	3%
SPLK	34%	34%			
SWKS				20%	2%
TEAM	50%	39%	11%		
TER	69%	43%	13%	13%	
TSM	42%	6%	15%	21%	
TXN				55%	
VMW	50%				
XLNX	74%	13%	51%	10%	0%

Industrial, Auto and 5G Handsets inflecting off a Q220 bottom (off 20% y/y)

Auto supply chain in disarray

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<u>Semi</u>	<u>Auto %</u> <u>Revs</u>	<u>Semi</u>	<u>Industrial %</u> <u>Revs</u>	<u>Semi</u>	<u>Comm</u> <u>% Revs</u>	<u>Semi</u>	<u>Consumer</u> <u>% Revs</u>	<u>Handset %</u> <u>Revs</u>	<u>AAPL</u> <u>exposures</u>
ADI	11%	ADI	53%	ADI	25%	AAPL		50%	
				ANET	40%				
						AVGO			15%
		LSCC	39%	LSCC	38%				
MCHP	15%	MCHP	28%	MCHP	14%	MCHP	13%		
MPWR	15%	MPWR	17%	MPWR	11%	MPWR	26%		
		MTSI	42%						
MU	15%					MU		29%	
		MTSI	42%	MTSI	35%				
MXIM	26%	MXIM	30%	MXIM	24%	MXIM	20%		
NXPI	47%	NXPI	18%	NXPI	21%	NXPI		13%	
NVDA	5%								
ON	27%	ON	29%	ON	21%	ON		10%	
						QRVO			36%
						QCOM			7%
						SWKS		70%	39%
TER		TER	13%	TER	69%				
						TSM		47%	> 10%
TXN	21%	TXN	36%	TXN	11%	TXN	13%	10%	6%
XLNX	12%	XLNX	30%	XLNX	32%				

Reopen vs Covid plays



<u>Reopen and Infrastructure trades</u>		<u>Covid trades</u>	
	ACN		AAPL
	ABNB		AMD
	ADSK		AMZN
	AMAT		BABA
	ANET		CHGG
	ANSS		CTXS
	BSY		CRWD
	CIEN		DASH
	CSCO		DOCU
	FIS		FFIV
	FISV		FIVN
	GPN		GDDY
	PFPT		INTC
	PTC		MSFT
	RNG		NET
	SMTC		NFLX
	TSM		PANW
			OKTA
			PTON
			SHOP
			TWLO
			W
			WIX
			ZM
			ZS

Cloud Titans now spending post the 2H20 digestion phase

Q121 Capex

AMZN: \$6.8B

FB: \$4.4B

MSFT: \$5.1B

GOOG: \$5.9B

Total: \$22B (strong)



Cloud	% revs	Growth	Q121 Capex
			Capex (B)
ANET	40%		
AMZN	13%	29%	\$6.8
BABA	11%		
CIEN	24%		
FB			\$4.4
GOOG	10%	43%	\$5.9
IBM	14%		
INTC	33%		
JNPR	23%		
MCHP	18%		
MPWR	31%		
MSFT	35%	47%	\$5.1
MTSI	20%		
NVDA	40%	162%	
ON	13%		
SAP	30%		
TSM	33%		
XLNX	12%		
		Total	\$22.2
		FY20	FY21
FB		\$16B	\$20B



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