

Thematic Investing

The World After Covid: Stock Universe & Primer Picks

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World After Covid Primer: Stock Universe & Primer Picks

Our [The World After Covid Primer](#) examines how the world might change after coronavirus. In this report, we outline sub-themes and the stock universe that could be beneficiaries mid-term, totalling **c.\$20 trillion market cap** of opportunities globally.

Geopolitics & Globalization: local, sustainable and clean

As the "Global to Local" theme accelerates, **robotics & automation** could enable re-shoring (e.g. Siemens, ABB, Eaton, Honeywell, Keyence). **Greater China localization** means tech supply chain diversification (e.g. TSMC, Foxconn IoT, Silergy). We see more focus on **sustainability & cleantech** mid-term (e.g. NextEra, Orsted, Vestas, Ball Corp).

Tech Wars: fast forward to the future

Driven by the tech war, faster digitalisation can be a lasting legacy of COVID-19 putting the focus on **big-tech** (e.g. Apple, Alphabet, Amazon, Alibaba, Microsoft, Facebook), **semis** (e.g. Intel, Nvidia, AMD, ASML), **cloud software** (e.g. Salesforce, Workday, ServiceNow), **data centers** (e.g. Equinix, Digital Realty), **telco towers** (e.g. American Tower, Crown Castle, Cellnex), **5G** (e.g. Qualcomm, Ericsson, Nokia), **AVs** (e.g. Tesla, Yandex, Aptiv) **WFH** (e.g. Zoom, VMware, Cisco), **payments** (e.g. PayPal, Fiserv, Adyen).

Big Government, Bigger Data: safety over privacy

The expansion of governments would mean more focus on **cybersecurity** (e.g. CyberArk, Splunk, Zscaler) and **homeland safety** (e.g. Raytheon Tech, Thales, Booz Allen Hamilton). There could be more regulations, expanding **testing & certification** (e.g. Keysight Tech, SGS, Intertek, Bureau Veritas). Governments may want to track more data and expand the **Internet-of-Things (IoT)** ecosystem (e.g. NXP, STMicro, Infineon).

Healthcare: smart health the new national wealth

Expansion of healthcare will be a key legacy of the pandemic. **HealthTech** could be enablers of such an expansion (e.g. Teladoc, Philips, Intuitive Surgical, DexCom). **Life sciences** names can help in R&D and commercialisation of new health solutions (e.g. Thermo Fisher, Quest, Guardant Health). **Digital healthcare** can create value from vast smart healthcare data (e.g. IQVIA, Cerner, Veeva Systems) and **AI** will also be a key enabler (e.g. Schrodinger, IBM Watson, Google Verily/Calico).

The New Consumer: eat, watch, play, shop at home

Digital entertainment (e.g. Netflix, Spotify, Disney, Tencent Music) habits formed during COVID-19 become sticky. **eSports** can continue adoption from young generations (e.g. Amazon Twitch, AfreecaTV, Huya, Activision) and **eCommerce** (e.g. Meituan Dianping, Ocado, Prologis) accelerates. Finally making **future food** more sustainable and local will also be key (e.g. Kerry, DSM, Symrise, WalMart, PepsiCo).

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Refer to important disclosures on page 33 to 37. Analyst Certification on page 30.

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Covid-19 Investment Implication Series

Covid-19 is one of those rare events in history – like the Great Depression, or fall of the Berlin Wall, that will completely reshape geopolitics, societies, and markets. It may lead to tectonic shifts in the US & China cold war, de-globalisation of supply chains and central bank quantitative failure. The effects could be far-reaching, from social unrest to instability in oil, new economic doctrines, and re-evaluation of sovereign states.

Post-Covid: times they are a-changing in the world order

Data is being created at the fastest rate ever, already up 50% vs. pre-Covid in parts of the west. The effect is intensifying the tech war, governments becoming bigger and more influential - the Fed printed US\$1mn every second at peak panic. Societies will be safer but less private, with more than 30 countries issuing citizen tracking orders.

5 themes after the Great Isolation

Alongside a global survey of BofA analysts covering 3,000 companies and spanning 25 sectors, we outline 5 themes with US\$20tn market cap of enablers for the world post-Covid. Among the secular beneficiaries are healthcare, digital consumer, ESG, staples, industrial real estate, and technology:

- 1. Geopolitics & Globalisation - the dragon vs the eagle, round II:** rising tensions clashing East/West doctrines. 'Global to local' on fast-forward. A third of BofA analysts now expect their companies to push for supply chain reshoring.
- 2. Tech War - the race for supremacy:** data is the new gold, meaning a resurfacing tech-war due to geopolitics. Half of our analysts expect higher IT spending than pre-Covid. We anticipate a wave of investment in new infrastructure, AI and moonshots.
- 3. Big Government - a new social contract:** the state has a new economic & social mandate. A third of analysts expect some erosion of shareholder rights = rise of stakeholders. Government 'data fever'. Privacy will be the currency to buy safety.
- 4. Health - the new wealth and focus for ESG:** public health is the new national wealth. Stakeholders will increasingly focus on health-related ESG metrics; governments will come to appreciate health more as an economic resource.
- 5. The New Consumer - "OK Zoomer":** Gen Z is uniquely prepared for the new era of social distancing, the online world, and sustainability. Other generations will be slow to adapt. Millennials, the "double downgrade" generation, is most exposed to earning cuts due to job losses. EM middle class growth could stall or slow down.

The investment universe: US\$20tn market cap of enablers

We identify sub-segments across our big 5 themes that are well placed to benefit in the Post Covid-19 World, with the total market capitalisation of c.\$20tn (see Table 1).

Table 1: Investment opportunities for the Post COVID-19 World across various sub-segments totalling c.\$20tn in market capitalisation

Geopolitics & Globalisation		Tech War		Big Government		Health the new Wealth		New Consumer	
Sub-segments	\$bn Mcap	Sub-segments	\$bn Mcap	Sub-segments	\$bn Mcap	Sub-segments	\$bn Mcap	Sub-segments	\$bn Mcap
Total	2,114	Total	10,344	Total	603	Total	4,425	Total	2,891
Industrial Automation	554	High Tech	6,613	Homeland	411	BioPharma	2,513	Food	1,288
Global to Local	442	Processing Power	1,120	Internet of Things	132	HealthTech	722	Digital Entertainment	572
Clean Energy	326	Data Analytics	771	TIC	60	Managed Care	486	eCommerce	489
Electric Vehicles	273	Telecom Tech	559			Life Sciences	412	DIY (Do it Yourself)	301
Future Food	187	Payments	330			Healthcare Digitalisation	157	Video Games	159
Energy Efficiency	165	Telecom Infra	267			Biotech	136	Learning	82
Environmental Services	125	Connectivity Software	260						
Sustainable Packaging	44	Cybersecurity	259						
		Data Infra	165						

Source: BofA Global Research



Primer Picks thematic methodology

The BofA “The World After Covid” list of companies with thematic exposure is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances / objectives before making any investment decisions.

Within the 5 major themes that we identified for “The World After Covid”, below we have mapped exposures across the following sub themes for investors wishing to access the 5 major themes. We consider the following sectors as enablers to these sub-themes and the overall “The World After Covid” megatrend.

- Geopolitics & Globalization: Sub-themes – Robotics & Automation, Cleantech, Sustainability, etc
- Tech Wars: Sub-themes – High-tech, Semi-conductors, Software, Cyber-security, Connectivity, among others
- Big Government: Sub-themes – Homeland security & safety, testing & certification, Internet of Things (IoT)
- Health: Sub-themes – Healthtech, Life Sciences, AI Healthcare Digitalisation etc
- The New Consumer: Sub-themes – Digital entertainment, eCommerce, eSports, Food, Education & Training, Future Food etc

From these sectors our starting point is then to use the BofA Global Research universe of covered stocks to see which ones have exposure to the related sub-themes. For each company, we have estimated the level and materiality of companies’ exposure of related products – and its role as long-term growth drivers. For each company, we have characterised their exposure as follows:

- High - sub-theme-related technologies, services, and solutions are core to the business model, strategy and R&D of the company; material sales and/or growth driver; pure play (i.e. >50% of sales).
- Medium - sub-theme-related products, technologies, services, and solutions are an important factor for the business model, strategy and R&D of the company; material to sales and/or growth (i.e. 10-50% of sales).
- Low - sub-theme-related products, technologies, services, and solutions are not material to global revenues and/or growth but are one factor, among others, for the business model, strategy & R&D of the company (i.e. single digit, <10% of sales).

To be included as a Primer Pick, the stock must be ranked as having material i.e. either High or Medium exposure to the relevant theme. The primer pick must also be covered by a BofA Global Research fundamental analyst and have a Buy rating as of the date we publish this report. Although it is difficult to accurately gauge the link between such exposure and share price performance (as many factors outside the scope of this analysis are likely to play a role in short- and long-term price development), we still consider the thematic exposure as an important metric to track given that the megatrend is a global “Transforming World” theme with a long lifespan.

The World After Covid Primer: Universe of Stock Exposures

Table 2: Companies with exposure to themes and sub-themes that could be beneficiaries in “The World After Covid”

Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
TECH WAR (+ DIGITALISATION)									
High Tech									
Microsoft Corp	MSFT	MSFT US	United States	1,350,518	B-1-7	High Tech	Medium	Yes	Leading global software in operating systems (Windows), cloud (Azure), machine learning services, AI (Cortana voice assistant, computer vision, speech recognition), Bing search, Pix (smart camera), Microsoft Teams for virtual work & learning
Apple Inc.	AAPL	AAPL US	United States	1,459,499	B-1-7	High Tech	Medium	Yes	Leading global consumer electronics co (iPhone, iPad etc), AI features, Siri (digital voice assistant), Quicktype (intelligent text), Memories (computer vision for photos), Autos (Apple Car); 1bn+ devices in use, relative strength in data privacy
Amazon.com	AMZN	AMZN US	United States	927,011	B-1-9	High Tech	High	Yes	Leading global eCommerce co (+drones, logistics), cloud (AWS), Machine Learning & AI Services, Amazon Echo & Alexa Voice (AI voice speaker & APIs for developers), Amazon Prime Video/Music entertainment, Amazon Whole Foods
Alphabet C	GOOG	GOOG US	United States	867,570	B-1-9	High Tech	High	Yes	Leading global tech co (search, advertising, apps, products, services etc), 71bn+ user platforms. DeepMind (machine learning tool), Cloud services, Google Voice Search & Computer Vision, Google assistant (conversational AI voice search); Google tensor processing unit or TPU for deep learning
Alibaba	BABA	BABA US	China	541,645	B-1-9	High Tech	High	Yes	Leading eCommerce/marketplace co (Taobao, Tmall), fintech affiliate (Ant Financial, Alipay, Sesame Social Credit), 466mn annual active customers on Alibaba in China; 529mn mobile MAU. Investors in SenseTime and MegVii (facial recognition AI)
Facebook	FB	FB US	United States	565,675	B-1-9	High Tech	High	Yes	#1 global social network, machine learning services, online advertising, DeepFace (facial verification software), Moments (Photo sharing application using AI), News Feed (AI for user specific news); 2bn MAU across all apps and service;
Tencent Holdings	TCTZF	700 HK	China	493,885	B-1-7	High Tech	High	Yes	Leading China tech conglomerate (messaging - WeChat Pay, online games- Fortnite, advertising, online communities), WeChat 963mn MAU; 850mn MAU QQ IM; 622mn MAU mobile QQ. Moving into AI interfaces. Tencent AI for machine learning and voice assistants.
Baidu.com-ADR	BIDU	BIDU US	China	42,068	B-1-9	High Tech	High	Yes	#1 China search engine, China's AI leader. AI applications and eco-systems including 1) driverless cars/autonomous driving (Apollo platform, partnered with Daimler and Nvidia), 2) Internet of Things ("IoT", Duer OS), 3) Cloud (with AI services), & 4) Baidu Brain
Cybersecurity									
Atlassian Corp Plc	TEAM	TEAM US	Australia	35,855	B-1-9	Cybersecurity	Medium	Yes	Atlassian provides team collaboration tools to change the way teams interact and work together in a digital economy. The company has expanded its product suite to incorporate use cases for the broader IT and business users (sales, marketing, HR, finance).
Experian	EXPGF	EXPN LN	United Kingdom	25,952	A-2-7	Cybersecurity	High	No	Collection of credit bureau, scoring, software, marketing and internet services. Experian Data Breach Resolution helps businesses of all sizes manage the risk of fines, customer loss, negative press and litigation due to a breach of data. It is a cyber security play via its consumer services division which provides credit monitoring, fraud protection and identity management.
Fortinet	FTNT	FTNT US	United States	19,355	B-1-9	Cybersecurity	High	Yes	Pioneer in the unified threat management of networks. Fortinet's FortiGate, containing physical / virtual appliances, provides various security and networking functions, including firewall, VPN, anti-malware, intrusion prevention, Web filtering, anti-spam, DLP, and WLAN control.
Check Point	CHKP	CHKP US	Israel	19,850	B-3-9	Cybersecurity	High	No	Provides network security and subscription services for IT security, with a focus of reducing complexity of security management. Pure play on cyber security (security gateways, endpoint security). ZoneAlarm protect millions of consumers from hackers, spyware and identity theft.
Shenzhen Goodix	XOPLF	603160 CH	China	14,555	C-1-7	Cybersecurity	High	Yes	Goodix is a Shenzhen-based IC design company (fabless) supplying fingerprint sensors, touch ICs, MCU, IoT solutions and telephone chips to electronics and smart home OEMs. Goodix started to ship under-display fingerprint solution since late-2018, and is a leader in the field.
Splunk	SPLK	SPLK US	United States	16,417	C-1-9	Cybersecurity	High	Yes	Software for real-time Operational Intelligence. Its enterprise software, which also uses machine data processing, is a platform to reduce security breaches, improve operational intelligence and track advanced threats, incident response and security intelligence.
Palo Alto Networks	PANW	PANW US	United States	16,323	B-2-9	Cybersecurity	High	No	Pure play cyber company in network security. Their Next-Generation Firewalls protect customers' networks with the ability to read the content of the traffic (not only its address). Considered as a visionary and leader in terms of enterprise network firewalls by Gartner.
Equifax	EFX	EFX US	United States	15,904	B-3-7	Cybersecurity	High	No	Credit and risk management solutions provider to businesses and consumers. Equifax has amassed data on approximately 820mn consumers, 91mn businesses, 280mn employee files, 201mn public records and 5.8bn trade accounts. Products and services include consumer reports, risk scoring and analytics, income & employment verification, decisioning services, etc.



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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
DocuSign, Inc.	DOCU	DOCU US	United States	13,617	C-2-9	Cybersecurity	Medium	No	Market leader in electronic signature technology and agreement process automation through its cloud platform. It makes the process digital and efficient, with lower processing cost and time.
Norton LifeLock	NLOK	NLOK US	United States	11,394	B-3-7	Cybersecurity	High	No	Norton LifeLock provides software and services that help consumers worldwide to mitigate risk, and manage and secure their information and identity.
Juniper Networks	JNPR	JNPR US	United States	11,395	B-3-7	Cybersecurity	Medium	No	Provider of high-performance network infrastructure to service providers and enterprises. It is a cyber security play on its network security solutions.
F5 Networks	FFIV	FFIV US	United States	9,479	B-3-9	Cybersecurity	Medium	No	Global leader in Application Delivery Networking which endures that applications are always secure, fast, and available across any network. F5 products includes Server Load Balancer (SLB), Secure Socket Layer (SSL), Virtual Private Network (VPN), WAN optimization, Network Attached Storage (NAS), DDoS, and diameter signal routing.
Zscaler	ZS	ZS US	United States	9,115	C-1-9	Cybersecurity	High	Yes	Zscaler is a leader in the cloud-based Secure Web Gateway (SWG) market that helps protect enterprise internet traffic using cloud services. Zscaler's products are uniquely architected to address the higher-growth cloud or software-as-a-service (SaaS) portion of the market.
Dynatrace	DT	DT US	United States	7,177	C-1-9	Cybersecurity	High	Yes	Dynatrace provides a unified application and infrastructure monitoring platform for enterprises. Dynatrace is used by sales, marketing, C-suite, IT application support, IT infrastructure support, and DevOps, standing out as the enterprise leader in the monitoring and observability market.
O-film	XSZHF	002456 CH	China	6,940	C-3-7	Cybersecurity	High	No	O-film is a leading optical and optoelectronic components maker, which supplies touch screen panels, camera and LCD modules, as well as fingerprint identification systems.
Proofpoint	PFPT	PFPT US	United States	6,211	B-1-9	Cybersecurity	High	Yes	A security software and services leader specializing in email security, continuity, archiving, and social media. Dominant in email security and serves over 50% of the Fortune 1000.
Avast	AVASF	AVST LN	Czech Republic	5,052	B-1-7	Cybersecurity	High	Yes	A provider of antivirus (AV) software and related tools, used by 435m+ consumers. Its solutions are sold through four major brands: Avast, AVG, HMA and CCleaner. Its main divisions are desktop AV and related tools, mobile consumer tools, consumer indirect and SME AV tools.
CrowdStrike	CRWD	CRWD US	United States	4,410	C-1-9	Cybersecurity	High	Yes	A leader in the Endpoint Protection Platform (EPP) using cloud-based platforms and machine learning. One of the few 100% cloud-based architectures in the cybersecurity space.
CyberArk Software	CYBR	CYBR US	Israel	3,092	C-1-9	Cybersecurity	High	Yes	Pure play cybersecurity company that focuses on enterprise security to protect high-value information assets, infrastructure and applications. Solutions include Enterprise Password Vault, Key Manager, Threat analytics and Identity manager solutions.
FireEye	FEYE	FEYE US	United States	1,759	B-2-9	Cybersecurity	High	No	Pure player in Cybersecurity that provides network security solutions addressing Advanced Persistent Threats (APTs). Its solution focuses on behaviour of traffic rather than a signature.
Data Analytics									
Oracle	ORCL	ORCL US	United States	182,586	B-2-7	Data Analytics	High	No	Global leader in database software and services that businesses around the world use. All such applications would have an element of privacy and cybersecurity built in. Also enabler of Big Data AI, Industry 4.0, Internet of Things, Ecommerce etc
Adobe	ADBE	ADBE US	United States	152,254	B-1-9	Data Analytics	Medium	Yes	Electronic document technology and graphic content authoring applications provider for professionals, developers and enterprises. Start products include Photoshop, Acrobat, PDF, etc
Salesforce.com	CRM	CRM US	United States	109,476	B-1-9	Data Analytics	High	Yes	Leading customer relationship management (CRM) software co. Salesforce infuses advanced AI capabilities into each App to help deliver personalized and predictive customer experiences.
IBM	IBM	IBM US	United States	106,973	B-1-7	Data Analytics	Medium	Yes	Enterprise IT solutions - expanding into IoT, industry 4.0 and Quantum Computing. IBM Watson is a nextgen AI offering solutions for diverse industries from healthcare to defence.
ServiceNow, Inc.	NOW	NOW US	United States	52,225	B-1-9	Data Analytics	High	Yes	It develops and sells a hosted, subscription based suite of services designed to automate various IT department functions from help desk to operations management.
Shopify, Inc.	SHOP	SHOP US	Canada	40,456	C-3-9	Data Analytics	Medium	No	Shopify is a cloud based e-commerce solutions provider to small businesses. Offers front end website features and back end support system such as order management and point-of-sales
Autodesk	ADSK	ADSK US	United States	32,816	B-3-9	Data Analytics	High	No	Autodesk offers design software and services solutions from architectural to digital media markets. It has 2D/3D design software like AutoCAD.
Workday	WDAY	WDAY US	United States	29,827	B-1-9	Data Analytics	High	Yes	Provides SaaS-based HR management and financial solutions in planning, learning and analytics. Software incorporates machine learning components.
Cadence	CDNS	CDNS US	United States	21,738	B-1-9	Data Analytics	High	Yes	A provider of electronic design automation (EDA) software and tools used to design, verify, and lay out semiconductor chips and electronics system, also the 3rd largest supplier of semiconductor IP. Its core competency lies in analog/custom chip design.

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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Synopsys	SNPS	SNPS US	United States	18,482	B-1-9	Data Analytics	High	Yes	The largest provider of electronic design automation (EDA) software and tools. Synopsys is also the 2nd largest supplier of semiconductor intellectual property.
Alteryx, Inc	AYX	AYX US	United States	5,134	C-1-9	Data Analytics	High	Yes	A subscription-based software provider of data tools for analytics applications. Alteryx Designer enables to build analytics applications/workflows using an intuitive, visual user interface. Alteryx Server can run Designer applications at scale and share to multiple departments.
Elastic	ESTC	ESTC US	United States	3,936	C-1-9	Data Analytics	Medium	Yes	The equivalent of “Google” for enterprises that builds a generic search product, ecosystem and developer community and makes Elasticsearch fast, scalable, and relevant.
Medallia	MDLA	MDLA US	United States	3,428	C-1-9	Data Analytics	High	Yes	The leader in experience management, a new category in enterprise software. The company captures structured and unstructured experience data and leverage AI to derive personalized and predictive insights to improve business results via a better customer experience.
Cloudera	CLDR	CLDR US	United States	2,190	C-3-9	Data Analytics	High	No	A leading next generation data management company which co-created and commercialized open-source Apache Hadoop, introduced a new way of storing and processing data.
Blue Prism	BPRMF	PRSM LN	United Kingdom	1,458	C-1-9	Data Analytics	Medium	Yes	Blue Prism was an early innovator in the automation market, inventing the term Robotic Process Automation to automate manual, rules based, back-office administrative tasks.
Data Infra									
Equinix	EQIX	EQIX US	United States	49,146	B-1-7	Data Infra	High	Yes	A leading global data center operator offers service to large enterprises, content providers and telecom carriers. It manages 100 network neutral data centers in 31 markets globally.
Dell Inc.	DELL	DELL US	United States	32,539	C-1-9	Data Infra	High	Yes	Dell offers data infrastructure solutions including Infrastructure Solutions Group (ISG), servers, storage (EMC), networking, computers, virtualization (VMWare), cloud and cybersecurity.
Digital Realty Trust	DLR	DLR US	United States	29,046	B-1-7	Data Infra	High	Yes	It owns, operates, and develops data centers located globally. DLR has >22 million square feet of rentable space spanning 124 properties for telecom, financial, IT and internet firms.
NetApp	NTAP	NTAP US	United States	10,906	B-2-7	Data Infra	High	No	NetApp (NTAP) is a leading provider of storage systems, software and services that simplify the complexity of managing corporate data.
GDS Holdings	GDS	GDS US	China	8,055	C-1-7	Data Infra	High	Yes	GDS is among the largest carrier-neutral data center operators in China. 70% of its customers are cloud providers (Alibaba, Tencent, AWS, etc.) and 15% are from the internet space.
Iron Mountain	IRM	IRM US	United States	6,727	B-3-8	Data Infra	High	No	Iron Mountain is the global leader in secure storage. The company operates in 54 countries, generates more than \$4.2bn revenue and has a durable business model. Recent acquisitions position the company for growth in data centers and emerging markets.
CYRUSONE INC	CONE	CONE US	United States	5,645	B-1-7	Data Infra	High	Yes	CyrusOne (CONE) is a data center REIT that owns and operates 31 data centers in the U.S., London and Singapore. The company has more than 900 distinct customers in its enterprise-class, carrier-neutral, multi-tenant data center properties.
Beijing Sinnet	XAYCF	300383 CH	China	5,561	B-1-7	Data Infra	High	Yes	Beijing Sinnet is the largest carrier-neutral datacenter operator in Beijing/Hubei areas that provides Amazon (AWS) cloud services with nearly three-quarters of sales come from its cloud business, while datacenters (IDC) were at 21% in 2018.
Pure Storage	PSTG	PSTG US	United States	4,079	C-1-9	Data Infra	High	Yes	A leading vendor in the All-Flash Array market. All-Flash Arrays are disrupting Hard Disk Drives given better performance, better durability, higher reliability, lower power consumption, smaller footprint and a new selling model.
CoreSite Realty Corp	COR	COR US	United States	3,989	B-3-8	Data Infra	High	No	Headquartered in Denver, CoreSite (COR) owns, operates, and develops data centers located in various states in the US. The portfolio totals nearly 2.0 million square feet of rentable space, of which approximately 1.5 million square feet are built out for data center use.
Wiwynn	XWIOF	6669 TT	Taiwan	3,568	C-1-7	Data Infra	High	Yes	Wiwynn supplies server, storage and cloud equipment to global internet service providers (ISPs). Revenue comes from server/datacenter business. Key customers are FB and MSFT.
Teradata	TDC	TDC US	United States	2,962	B-2-9	Data Infra	High	No	Teradata is the world's leading provider of business analytics solutions, data and analytics solutions, and hybrid cloud products and services and consulting services.
NextDC Limited	NXDCF	NXT AU	Australia	2,606	B-3-9	Data Infra	High	No	NextDC is an Australian data centre operator with Built capacity of 46MW as at FY18 and Planned capacity of 306MW. Some competitive advantages of NextDC include Tier 3/4 uptime, carrier neutral offering and energy efficiency. 3 new DCs as parts of expansion is underway.
Telecom Infra									
American Tower	AMT	AMT US	United States	107,957	B-1-7	Telecom Infra	High	Yes	The largest global owner and operator of wireless and broadcast communications towers with approximately 170,000 sites globally. AMT core business is leasing space on its wireless towers primarily to wireless carriers, government agencies and broadband data providers.



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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Crown Castle	CCI	CCI US	United States	60,837	A-1-7	Telecom Infra	High	Yes	One of the largest U.S. wireless tower companies with over 40,000 towers and around 60,000 route miles of fiber supporting small cells and fiber solutions. CCI leases space on its wireless towers primarily to wireless carriers, government agencies, and broadband data providers.
SBA Comm. Corp.	SBAC	SBAC US	United States	30,268	B-1-7	Telecom Infra	High	Yes	The third largest U.S. wireless tower company with over 25,000 towers spread across the U.S., Canada, and Latin America with a large site development and construction division. SBA does long-term antenna space leases on its towers to various wireless service providers.
China Tower	CHWRF	788 HK	China	37,470	C-1-7	Telecom Infra	High	Yes	The world's largest telecommunications tower infrastructure service provider. In March 2018, the company operated and managed 1.89mn sites. The company's market share in revenue in the PRC telecommunications tower infrastructure industry was 97.3% in December 2017.
Cellnex	CLNXF	CLNX SM	Spain	20,405	B-1-7	Telecom Infra	High	Yes	Cellnex is the largest independent tower company in Europe. The business has 3 parts: i) telecom site rental, ii) broadcast infrastructure, iii) network services and other.
Bharti Infratel	YYYAF	BHIN IN	India	3,804	B-3-7	Telecom Infra	Medium	No	Bharti Infratel is the largest tower company in India (and globally) by size of its tower portfolio. Bharti Infratel's operating structure includes: 1) 100%-owned towers in 11 out of 22 telecom circles in India, and 2) 42% equity ownership in Indus Towers that spans 15 circles.
Telesites	TSSLF	SITESB1 MM	Mexico	2,179	B-1-7	Telecom Infra	Medium	Yes	Telesites is a classic tower company that leases access to its site infrastructure to AMX, and to other wireless or fixed-line operators in Mexico. Telesites was spun off from Telcel and currently has 15,334 towers in 2017.
Telecom Tech									
Cisco Systems	CSCO	CSCO US	United States	215,611	B-2-7	Telecom Tech	Medium	No	Cisco Systems (CSCO) is a data networking products provider using Internet protocol technology to transport data. Product offerings fall into several categories: Routing, Switching, Advanced Technologies, Services and Other Products.
Qualcomm	QCOM	QCOM US	United States	114,406	C-1-7	Telecom Tech	High	Yes	Qualcomm (QCOM) designs, develops, and supplies semiconductors and collects royalties on connectivity & processing components and software for wireless handheld devices, infrastructure and high-speed wireless networks.
Broadcom	AVGO	AVGO US	United States	106,549	B-1-7	Telecom Tech	High	Yes	AVGO has an extensive semiconductor product portfolio addressing applications within the wired infrastructure, wireless communications, enterprise storage, and industrial end markets.
Ericsson	ERIXF	ERICB SS	Sweden	26,526	B-1-7	Telecom Tech	Medium	Yes	Leading global network equipment and software supplier to wireless carriers with a focus on Radio Access Network/RAN equipment, mobile core network/IMS and OSS/BSS solutions. Ericsson IoT accelerator ecosystem and Connected Vehicle Marketplace for automotive data
Xilinx	XLNX	XLNX US	United States	22,997	B-3-7	Telecom Tech	High	No	Xilinx is a leading fabless supplier of high-density programmable logic devices (PLDs). Xilinx's PLDs are standard integrated circuits that offer significant advantages over custom logic chips and are used extensively in key end markets such as Communications.
Nokia	NOKBF	NOKIA FH	Finland	19,336	B-1-9	Telecom Tech	Medium	Yes	Two main businesses: 1) Nokia Networks, a network infrastructure equipment supplier to global wireless and wireline operators 2) Technologies, its patent/IPR licensing activities.
Skyworks	SWKS	SWKS US	United States	15,796	B-1-7	Telecom Tech	High	Yes	Skyworks is the market leader in power amplifiers, front end modules and other RF components for mobile devices and communications infrastructure. Its RF products are benefitting from a 2x-4x content increase in front-end RF from the migration to data intensive 3G/4G smartphones.
Marvell	MRVL	MRVL US	Bermuda	15,421	B-1-7	Telecom Tech	High	Yes	Marvell is a fabless supplier of mixed signal and analog semiconductor products to a number of storage, computing, and communication applications including hard disk drives, personal computers, servers, Ethernet switches, printers, and connectivity markets.
Qorvo Inc.	QRVO	QRVO US	United States	9,861	B-1-9	Telecom Tech	High	Yes	Qorvo is a leading designer and manufacturer of core technologies and radio frequency (RF) solutions for mobile, wireless infrastructure, cable TV, broadband, and aerospace/defense applications. Qorvo was formed following the merger of RFMD and TriQuint.
CIENA	CIEN	CIEN US	United States	5,080	B-2-9	Telecom Tech	Medium	No	Ciena is a vendor for high capacity optical transport and Ethernet switching equipment to carriers, enterprises, cable operators and governments. It specializes in transitioning legacy communications networks to converged, next generation architectures.
Inphi	IPHI	IPHI US	United States	4,238	C-1-9	Telecom Tech	Medium	Yes	An industry leading optical transport/interconnect IC vendor. The company is going to launch disruptive solutions that could give Inphi strong competitive advantage for the next 2-3 years.
Processing Power									
Intel	INTC	INTC US	United States	254,580	B-1-7	Processing Power	Medium	Yes	Leading global semis co. Acquired MobilEye and is building own fleet of cars for AV testing and data collection, predicts autonomous cars will use 4,000 GB or 4TB of data per day

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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
TSMC	TSMWF	2330 TT	Taiwan	248,447	B-1-7	Processing Power	High	Yes	Largest and global leader in integrated circuits (IC) manufacturing: IC manufacturing, mask-making, IC design services, turn-key solution, and process development.
Nvidia	NVDA	NVDA US	United States	167,577	C-1-7	Processing Power	Medium	Yes	Nvidia designs and sell graphics and video processing chips for desktop and notebook gaming PCs, workstations, game consoles, and accelerated computing servers and supercomputers.
ASML NA	ASMLF	ASML NA	Netherlands	117,329	B-1-7	Processing Power	Medium	Yes	The market leader in lithography tools, key for increasing reducing size, packing transistors on chips and thus improving processing power of chips with around 90% market share.
Texas Instr.	TXN	TXN US	United States	99,755	B-1-7	Processing Power	Medium	Yes	A broad-based supplier of semiconductor components with 65% of sales well diversified.
Advanced Micro	AMD	AMD US	United States	67,944	C-1-9	Processing Power	Medium	Yes	One of the largest suppliers of PC microprocessors and graphics processors worldwide to computing OEMs. Main product lines include desktop, embedded/semi-custom chips, etc.
Applied Materials	AMAT	AMAT US	United States	45,645	B-1-7	Processing Power	High	Yes	Supplier of semiconductor and semiconductor-related fabrication equipment. Applied's results are primarily driven by worldwide demand for chips and flat panel displays.
Lam Research	LRCX	LRCX US	United States	44,075	B-1-7	Processing Power	High	Yes	Global supplier of wafer fabrication equipment (WFE) and services for semiconductor manufacturing with core competencies in deposition, etch, and clean equipment.
Analog Devices	ADI	ADI US	United States	33,395	B-1-7	Processing Power	High	Yes	A leading analog semiconductor company focused on high performance analog signal processing chips including data converters, amplifiers, interface, power management, etc.
KLA-Tencor	KLAC	KLAC US	United States	22,824	B-1-7	Processing Power	High	Yes	Leading supplier of process control and yield management solutions for semiconductor and related nanoelectronics industries.
Teradyne	TER	TER US	United States	10,152	B-2-7	Processing Power	High	No	Supplier of automation equipment for test and industrial applications that designs automatic test systems used to test semiconductors, wireless products, data storage, and electronic systems.
Lasertec	LSRCF	6920 JP	Japan	5,546	C-1-7	Processing Power	Medium	Yes	A manufacturer of semiconductor and FPD production equipment with a 100% market share for semiconductor mask blank inspection systems and an 80% share for semiconductor mask inspection systems.
Connectivity Software									
Intuit	INTU	INTU US	United States	56,131	B-1-7	Connectivity Software	Medium	Yes	Provider of business and financial management solutions for SMEs, financial institutions, consumers and accounting professionals. Products and services mainly include TurboTax, QuickBooks, Quicken, small business financial management and payroll processing, personal finance, and tax preparation and filing and online banking services.
VMware Inc	VMW	VMW US	United States	52,881	B-1-9	Connectivity Software	Medium	Yes	VMware is the provider of virtualization solutions for servers and desktops and technology designed to lower IT costs, provide more flexibility in choosing operating systems, and offer a more automated and resilient systems infrastructure.
Zoom	ZM	ZM US	United States	41,922	C-1-9	Connectivity Software	Medium	Yes	The leader in the video conferencing market. Zoom is a video-first enterprise communication platform that addresses customer pain points with legacy conferencing solutions.
Citrix	CTXS	CTXS US	United States	20,326	B-2-7	Connectivity Software	Medium	No	Citrix provides a broad platform of software, appliances and online services that enable secure, scalable access to enterprise applications regardless of location or connection type. Solutions include desktop and server virtualization, team collaboration and application networking.
RingCentral, Inc	RNG	RNG US	United States	19,929	B-1-9	Connectivity Software	Medium	Yes	Cloud-based solution provider for business communications that replaces legacy and expensive on-premise communications systems. Features include team collaboration, voice, text, fax, audio conferencing, and integration with document and customer relationship systems.
Arista Networks	ANET	ANET US	United States	13,936	B-2-9	Connectivity Software	Medium	No	Arista Networks develops high-performance cloud networking solutions, including switches, an advanced Software Defined Networking (SDN) operating system, and SDN applications. Used in high-frequency trading platforms, large internet companies and cloud service providers.
Twilio Inc	TWLO	TWLO US	United States	12,210	C-1-9	Connectivity Software	Medium	Yes	Twilio allows developers to incorporate communication capabilities, including voice, messaging, video, and authentication, into software applications, via Application Programming Interfaces (APIs). Twilio sells its products primarily by focusing on and servicing software developers.
CDW	CDW	CDW US	United States	11,359	B-1-7	Connectivity Software	Medium	Yes	A provider of multi-brand technology solutions to business, government, education and healthcare organizations. CDW's product portfolio includes over 100,000 products from 1,000 brands and encompasses a broad range of hardware and software offerings.
Amdocs	DOX	DOX US	United States	10,116	A-1-7	Connectivity Software	Medium	Yes	Amdocs (DOX) provides software products/services to major communications companies, enabling service providers to move towards integrated customer management (ICM). Major customers of Amdocs include wireline, wireless, cable, satellite, and financial enterprises.
TeamViewer	TMVWF	TMV GY	Germany	7,977	B-1-9	Connectivity Software	Medium	Yes	A leading SaaS vendor in the connectivity market. Users can smoothly connect to a remote device, enabling remote device management, IT support and multiple other use cases.



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Dropbox	DBX	DBX US	United States	7,860	C-1-9	Connectivity Software	High	Yes	Dropbox provides consumer/public cloud-based file sharing and collaboration platform, and has over 500mn registered users across 180 countries. The company generates revenue by selling cloud file storage and collaboration tools for subscription fees.
Everbridge	EVBG	EVBG US	United States	3,763	B-1-9	Connectivity Software	Medium	Yes	A cloud provider of critical communications and enterprise safety applications, including emergency notification, incident management, IT alerting and secure messaging.
Freee	XFEF	4478 JP	Japan	1,516	C-2-9	Connectivity Software	Low	No	Freee is a leading SaaS company specializing in accounting and HR software for small & mid-size businesses in Japan, with tailwinds from an SaaS market.
Payments									
PayPal Holdings Inc	PYPL	PYPL US	United States	123,224	B-1-9	Payments	Medium	Yes	Global payment platform that enables consumers to transact with merchants without sharing their financial data. PayPal also operates PayPal Credit (formerly Bill Me Later), Braintree, Venmo, and Paydiant. PayPal is in the process of acquiring Xoom.com.
Fidelity Nat'l Info	FIS	FIS US	United States	76,177	B-1-7	Payments	Medium	Yes	FIS provides software, services and outsourcing of technology to a wide range of institutions in the financial services industry. FIS is a Fortune 500 company and is a member of the S&P500 Index. In 2018, FIS generated revenues of \$8.1B, adjusted EBITDA of \$3.1B, adjusted EPS of \$6.95, and \$1.4B in free cash flow. FIS's core competitors include Fiserv, Jack Henry & Associates and Temenos
Fiserv	FISV	FISV US	United States	60,025	A-1-9	Payments	Medium	Yes	Fiserv is a leading global provider of financial services technology solutions. On July 29, 2019, FISV completed its transformational merger with First Data (FDC), the largest merchant acquirer in the US. In 2018, on a pro-forma basis, the NewCo had \$13.9 billion in total adjusted revenue, \$4.0 billion in adjusted operating income and \$2.8 billion of free cash flow.
Global Payments	GPN	GPN US	United States	44,806	B-1-8	Payments	Medium	Yes	GPN has provided payment processing and merchant acquiring services for merchants worldwide since 1967.
Adyen	ADYYF	ADYEN NA	Netherlands	25,961	B-1-9	Payments	Medium	Yes	Adyen is a fast growing payment services provider headquartered in the Netherlands. The company provides both in-store and online payment processing services. It can process payments in over 200 countries and territories with support for over 150 currencies and 200 different payment methods. Adyen has over 700 employees in 5 offices worldwide.
HEALTH THE NEW WEALTH									
Managed Care									
UnitedHealth Grp	UNH	UNH US	United States	293,058	B-1-7	Managed Care	High	Yes	UnitedHealth Group is one of the largest Managed Care Organizations (MCO) serving approximately 45 million members. UNH is the most diversified payer, either by product line, geography or customer type. The company's operating segments includes United Healthcare, OptumRx, OptumInsight, and OptumHealth (cf. Big Data & AI)
Anthem	ANTM	ANTM US	United States	72,959	B-2-7	Managed Care	Medium	No	Anthem is one of the largest managed care organizations in the U.S. with offerings in the commercial (large and small employer), Medicare, Medicaid and individual markets. The company operates Blue Cross & Blue Shield plans in 14 states and covers roughly 36 million medical members in total
Humana Inc	HUM	HUM US	United States	52,296	B-1-7	Managed Care	Medium	Yes	HUM is one of the largest managed care organizations in the United States, offering health insurance to members in the government and commercial segments. The company has a focus on Medicare Advantage, but also participates in other government. The company also has a commercial business offering medical and specialty products.
Centene Corporation	CNC	CNC US	United States	28,147	B-1-9	Managed Care	Low	No	Centene is a Managed Care Organization (MCO) operating in the Medicaid managed care and specialty services markets. The Medicaid business provides health insurance sponsored by the state and federal government for qualified lower income individuals, children and their families through programs such as Medicaid and the Aged Blind and Disabled (ABD) programs.
Molina	MOH	MOH US	United States	11,147	C-1-9	Managed Care	Low	No	MOH is one of the largest Medicaid managed care plans in the U.S., administering programs in over a dozen states.
DaVita Inc	DVA	DVA US	United States	10,035	B-1-9	Managed Care	High	Yes	DaVita HealthCare Partners is the parent company of DaVita and HealthCare Partners. HealthCare Partners manages and operates medical groups and affiliated physician networks in California, Nevada, Florida and New Mexico.
Ramsay Health Care	RMSYF	RHC AU	Australia	8,491	A-1-7	Managed Care	Low	No	RHC is one of the top five private hospitals globally with 221 hospitals in Australia, France and the UK. Operations also 14 include rehabilitation clinics and psychiatric units, and pharmacies in Europe and Australia.
Hapvida	XDUFF	HAPV3 BZ	Brazil	7,140	B-2-7	Managed Care	Medium	No	Hapvida is the third-largest healthcare operator in Brazil, both in the health and dental segments, with over 2.2mn and 1.7mn beneficiaries, respectively. It also has a robust network of more than 1500 hospital beds, clinics and diagnostic centers.
Qualicorp	QUAIF	QUAL3 BZ	Brazil	2,293	C-1-8	Managed Care	Medium	Yes	QUAIF is the largest benefits administrator in Brazil. The affinity segment is the main business of the company with 1.8 million lives, which represents close to 94% of Qualicorp's revenues. The company also attends 600 corporate clients as third-party-administration (TPA), as a broker and provides health management systems.

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HealthTech									
Medtronic	MDT	MDT US	United States	151,053	B-1-7	HealthTech	Medium	Yes	Acquired Mazor Robotics. Medtronic is a medical device company that operates in six business segments: Cardiac Rhythm Disease Management (CRDM), Spinal, Cardiovascular, Neuromodulation, Diabetes, and Surgical Technologies.
3M	MMM	MMM US	United States	93,400	B-2-7	HealthTech	Medium	No	3M is a diversified, global manufacturer. Its businesses are organized under five segments: Consumer, Safety and Graphics, Electronics and Energy, Health Care, and Industrial. Its popular brands include Scotch, Post-It, 3M, and Thinsulate with over 500 US patents.
Becton Dickinson	BDX	BDX US	United States	69,039	B-1-7	HealthTech	Medium	Yes	Becton, Dickinson, & Co (BD) is a diversified global medical technology company that produces medical devices, instrument systems, and reagents for the healthcare, life sciences research, clinical, diagnostic, and pharmaceutical markets. The recent CareFusion acquisition significantly expanded the company's medical technology footprint in infusion and medication management.
Intuitive Surgical	ISRG	ISRG US	United States	58,956	B-1-9	HealthTech	High	Yes	Intuitive Surgical manufactures both capital equipment systems and disposable instruments for robotic surgery. ISRG pioneered this market, and company's the da Vinci system remains the only commercially available system for robotic surgery.
Stryker Corp	SYK	SYK US	United States	57,140	A-1-7	HealthTech	Medium	Yes	Stryker is a medical technology company. Its orthopedic implants business produces implants used in joint replacement, trauma, spine and craniomaxillofacial procedures. Stryker's MedSurg segment produces surgical equipment (other than orthopedic hardware) as well patient handling and emergency medical equipment.
Siemens Healthineers	SEMHF	SHL GR	Germany	37,824	A-2-7	HealthTech	Medium	No	Siemens Healthineers AG operates as a medical technology company. The Company provides medical imaging, laboratory diagnostics, point-of-care testing, digital ecosystem, and reading solutions for health care applications. Siemens Healthineers offers its services worldwide.
Philips	RYLPF	PHIA NA	Netherlands	36,449	A-1-7	HealthTech	Medium	Yes	Philips Electronics of the Netherlands is a leading global Medical Device company with its core focus on in-vivo diagnostics. The company also holds strong positions in lighting, consumer electronics and domestic appliances.
Dexcom	DXCM	DXCM US	United States	28,953	C-1-9	HealthTech	Medium	Yes	DXCM is a medical device company focused on the design and development of continuous glucose monitoring (CGM) systems for people with diabetes. DexCom's products are marketed to physicians, endocrinologists, and diabetes educators.
ResMed	RSMD	RMD AU	United States	23,539	B-1-7	HealthTech	Medium	Yes	ResMed (RMD) is a leading developer and manufacturer of medical devices, masks and cloud-based software applications that diagnose, treat, and manage respiratory disorders. It focuses on connected health to deliver better outcomes for sleep apnea and chronic obstructive pulmonary disease sufferers.
M3	MTHRF	2413 JP	Japan	20,591	B-3-7	HealthTech	Medium	No	Founded in Sep 2000 with the aim of leveraging Internet to revolutionize healthcare. M3 launched the MR-kun service in Oct 2000 followed by Research-kun in Aug 2002. In Jul 2003 it merged its medical sites into the m3.com medical portal. It has expanded its services and moved into the US and UK markets, using M&A to broaden business domains.
Zimmer	ZBH	ZBH US	United States	19,951	B-1-7	HealthTech	Medium	Yes	Partnered with Apple Watch to launch clinical study for 10,000 knee and hip replacement patients, acquired Rosa Surgical Robot company in 2017, Zimmer designs, develops, manufactures and markets orthopedic implants (hips, knees, spine, trauma and dental) as well as related orthopedic surgical products.
Smith & Nephew	SNNUF	SN/ LN	United Kingdom	15,527	A-2-7	HealthTech	Medium	No	Smith & Nephew (UK) develops and markets advanced medical devices, operates in areas such as orthopaedics knee and hip implants and trauma devices, endoscopy instruments for access to joints (arthroscopy), cameras to assist surgery and blades for resecting tissue, and Advanced Wound care, advanced dressings, devices and biologics geared towards the treatment of chronic wounds.
Cardinal Health Inc	CAH	CAH US	United States	14,805	B-1-7	HealthTech	Medium	Yes	Cardinal Health is one of the largest drug and medical product distributors. The company generates approximately two-thirds of its profit from the pharmaceutical business and nearly one-third from its medical business. The pharmaceutical distribution business supports retail/mail/hospital/physician clients as well as drug manufacturers. The medical business manufactures its own portfolio of medical products and distributes brand-name products to hospitals and physicians. The company is based in Dublin, OH.
BioMerieux	BMXMF	BIM FP	France	13,797	B-3-7	HealthTech	Medium	No	BioMerieux designs, develops, manufactures, and markets in vitro diagnostics for medical and industrial applications. The Company is specialized in the diagnosis of infectious diseases and pathologies. BioMerieux is also active in the analysis of food, pharmaceuticals and environmental samples to determine their microbiological quality.
Quest Diagnostics	DGX	DGX US	United States	15,216	B-2-8	HealthTech	Medium	No	DGX is the largest provider of clinical diagnostic testing and related services in the U.S., delivered through a national network of full-service clinical laboratories and over 2,200 patient service centers (PSCs).
LabCorp	LH	LH US	United States	17,086	B-2-9	HealthTech	Medium	No	LH is the second-largest clinical laboratory in the U.S. Through internal investments and acquisitions, the company has expanded its clinical diagnostic and technology offerings to better insulate it from external challenges, facilitating above-market growth rates.



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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Hologic	HOLX	HOLX US	United States	12,639	B-1-9	HealthTech	Medium	Yes	Hologic is a leading manufacturer of medical device products focused on the healthcare needs of women. The company's portfolio includes products for mammography, breast biopsy, early stage breast cancer treatment, diagnostics, menorrhagia treatment, the removal of uterine fibroids, and medical aesthetics products.
DiaSorin	DSRLF	DIA IM	Italy	8,775	B-2-7	HealthTech	Medium	No	DiaSorin is an Italian multinational biotechnology company that produces and markets in vitro diagnostics reagent kits used in immunodiagnostics and molecular diagnostics. The group was founded in 2000 and is headquartered in Saluggia, Italy.
PerkinElmer	PKI	PKI US	United States	8,545	B-1-7	HealthTech	Medium	Yes	PerkinElmer is a diversified provider of scientific instruments, consumables, and services that address basic and applied research, as well as significant global health and safety issues, including maternal and fetal health, food safety, and environmental monitoring. Today, the company operates in two segments: Human Health and Environmental Health.
Henry Schein	HSIC	HSIC US	United States	7,476	B-3-9	HealthTech	Medium	No	Henry Schein is one of the world's largest distributors of dental and medical products. HSIC also provides additional value-added services, technology solutions and a broad range of financial services to its primarily fragmented customer base. The company is headquartered in Melville, New York and has operations in 33 countries.
Integra LifeScie	IART	IART US	United States	3,560	B-3-9	HealthTech	Medium	No	Medical device company specializing in neurosurgery, orthopedics, and regenerative therapies. The company operates in two segments: Specialty Surgical Solutions and Orthopedics & Tissue Technologies.
Tandem, Inc.	TNDM	TNDM US	United States	2,964	C-2-9	HealthTech	Medium	No	High growth pure play medical device company focused exclusively on the development and commercialization of insulin pump technology for the treatment of diabetes.
Elekta	EKTAF	EKTAB SS	Sweden	3,215	B-3-7	HealthTech	Medium	No	Elekta holds the No. 2 position globally in the radiotherapy market, with an estimated market share of over 30%. The company produces equipment and software for the planning and treatment of cancer and brain disorders in the fields of radiation therapy, radiosurgery and brachytherapy.
Progyny	PGNY	PGNY US	United States	1,609	C-2-9	HealthTech	High	No	Progyny is an independent provider of fertility benefits management for self-insured employers. It contracts directly with employers to offer a flexible range of treatment bundles designed to enhance the overall fertility benefit for its customers and ease the burden of family planning, currently providing services for about 80 self-insured employers and approximately 1.36MM total members.
Life Sciences									
Thermo Fisher	TMO	TMO US	United States	134,848	B-1-7	Life Sciences	High	Yes	Most diversified life sciences company. The company offers a comprehensive product portfolio consisting of analytical instrumentation, lab equipment, consumables, software and services used for throughout research, drug manufacturing, diagnostics, food and consumer product safety, and environmental testing.
Danaher	DHR	DHR US	United States	101,559	B-1-7	Life Sciences	High	Yes	One of the largest and most diversified life sciences companies. The company's products include analytical instruments and consumables for life sciences research, diagnostics, dental instruments and consumables, and equipment and services used in water quality testing and product identification.
Illumina	ILMN	ILMN US	United States	44,405	B-3-9	Life Sciences	High	No	NovaSeq nextgen sequencing, life sciences company offering instruments, consumables, and services for genetic analysis. The company's proprietary products and services are used by researchers to gain a greater understanding of genetic variation and biological function.
Agilent	A	A US	United States	22,968	B-2-7	Life Sciences	High	No	Supplier of analytical instrumentation and consumable products, which are used mainly for research and quality assurance applications by customers in the, life sciences, and chemical analysis industries. The company is known for being a leader in the Life Sciences industry with a long history of innovation and geographical expansion.
Mettler-Toledo	MTD	MTD US	United States	20,566	B-2-9	Life Sciences	High	No	Global manufacturer and supplier of precision weighing and analytical instruments for laboratory, industrial, and food retailing applications. With global headquarters in Greifensee, Switzerland, Mettler manages its US operations out of its Columbus, Ohio, headquarters.
Waters	WAT	WAT US	United States	15,293	B-3-9	Life Sciences	High	No	Supplier of analytical instrumentation and consumable products, which are used mainly for research and quality assurance applications by pharmaceutical, life science, biochemical, industrial, academic and government customers, with a No. 1 position in the liquid chromatography market, a No. 3 position in the mass spectrometry market and a No. 1 position in the thermal analysis market.
Quest Diagnostics	DGX	DGX US	United States	15,216	B-2-8	Life Sciences	High	No	Largest provider of clinical diagnostic testing and related services in the US, delivered through a national network of full-service clinical laboratories and over 2,200 patient service centers (PSCs).
LabCorp	LH	LH US	United States	17,086	B-2-9	Life Sciences	High	No	Second-largest clinical laboratory in the U.S. Through internal investments and acquisitions, the company has expanded its clinical diagnostic and technology offerings. LH also expanded into the contract research organization industry through the acquisitions of Covance and Chiltern, accounting for about 10% market share globally.

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Exact Sciences	EXAS	EXAS US	United States	11,434	C-1-9	Life Sciences	High	Yes	Molecular diagnostics company with a focus on cancer screening tests. Exact has commercialized a next-generation non-invasive colorectal cancer (CRC) screening test, Cologuard (CG), which received concomitant FDA approval and Medicare coverage in 2014.
Guardant Health	GH	GH US	United States	7,915	C-1-9	Life Sciences	High	Yes	Genomics-based molecular diagnostics company that develops and commercializes precision medicine tests for the study and treatment of cancer. It is a leader in liquid biopsy-based testing and it has one commercial clinical product, a gene panel called Guardant360 (G360), and an intriguing pipeline. GH also has numerous biopharma R&D and companion diagnostics partnerships.
Avantor, Inc.	AVTR	AVTR US	United States	6,749	C-1-9	Life Sciences	High	Yes	Avantor is a manufacturer of advanced materials and a distributor of chemicals, reagents, laboratory products, and equipment, to customers in the biopharmaceutical, healthcare, education & government, and advanced technology & applied materials industries. It also offers specialty procurement and other value-added laboratory services.
Bruker Corp.	BRKR	BRKR US	United States	6,196	B-1-9	Life Sciences	High	Yes	Global manufacturer of high-performance scientific instruments for life science, industrial and materials research applications. The company has strong positions in the molecular and atomic spectroscopy and mass spectrometry markets with products and services primarily marketed to end users in government and academic research and various industries.
Adaptive Biotech	ADPT	ADPT US	United States	2,848	C-1-9	Life Sciences	High	Yes	Adaptive Biotechnologies (ADPT) is a hybrid immune system research, advanced molecular diagnostics (MDx), and technology platform company that develops immunotherapy-based drugs. ADPT has one FDA cleared MDx product and a growing pipeline of novel tests. It also exclusively partnered with Genentech to develop immuno-oncology drugs.
Biotech									
Moderna	MRNA	MRNA US	United States	13,358	C-2-9	Biotech	High	No	Personalised cancer vaccines, clinical stage biotech company that develops messenger RNA (mRNA) as a modality for therapeutics. We believe mRNA has the potential to be a novel therapeutic class for treatment of various diseases. Moderna has a strong R&D platform, with 21 development candidates and 10 clinical programs.
Alnylam	ALNY	ALNY US	United States	11,783	C-1-9	Biotech	High	Yes	Alnylam Pharmaceuticals (ALNY) is a biotechnology company developing gene silencing therapeutics in rare disorders. The company's lead asset is Onpatro, approved for hereditary ATTR polyneuropathy. ALNY is also studying follow-on asset Vutrisiran in ATTR, and other pipeline assets (Givosiran, Lumasiran) in rare disorders such as AHP and PH1.
Kyowa Kirin	KYKOF	4151 JP	Japan	11,297	B-1-7	Biotech	High	Yes	Subsidiary of Kirin Holdings, operates two business segments: pharmaceuticals and biochemicals. Expanding licensing business of proprietary antibody technology Potelligent. Mainstay drugs include XLH rickets treatment Crysivita, XLH is gene-related bone disease that patients suffer frequent bone fracture and cannot walk like healthy people
BioNTech	BNTX	BNTX US	Germany	10,829	C-2-9	Biotech	High	No	BioNTech (BNTX) is a clinical stage biotech company developing mRNA therapies with a focus on oncology. The company is also using cell therapy, antibodies and small molecules for cancer therapy, and pursuing infectious and rare disease with mRNA therapy.
Neurocrine	NBIX	NBIX US	United States	7,601	B-1-9	Biotech	High	Yes	Focused on developing and commercializing therapies for neurodegenerative and endocrine disorders. The company's lead asset is Ingrezza, approved for the treatment of tardive dyskinesia. NBIX is also partnered with AbbVie on Orilissa in endometriosis and uterine fibroids, and is developing opicapone for Parkinson's disease and NBI-74788 in adult and ped CAH.
Sarepta	SRPT	SRPT US	United States	7,465	C-1-9	Biotech	High	Yes	CRISPR, gene therapy for the treatment of Duchenne muscular dystrophy (DMD) and Limb Girdle muscular dystrophy (LGMD), biopharmaceuticals company developing exon-skipping therapeutics and gene therapy, company's lead asset is Eteplirsen
Acadia Ph	ACAD	ACAD US	United States	5,070	C-1-9	Biotech	High	Yes	Biopharmaceutical company based in San Diego, CA focused on the development of therapeutics to treat Central Nervous System (CNS) disorders. Its lead asset Nuplazid (pimavanserin) has been approved for the treatment of Parkinson's Disease Psychosis (PDP). Nuplazid is also in development for the treatment of dementia-related psychosis.
Schrodinger	SDGR	SDGR US	United States	2,322	C-2-9	Biotech	High	No	Schrodinger provides a physics-based software platform for pharmaceutical and biotech companies to more efficiently design and optimize novel drug candidates. Via Schrodinger's SaaS platform, drug discovery can potentially be faster, cheaper, and more efficient than by traditional methods. Schrodinger is also leveraging its software platform to support internal drug discovery projects.
Regeneron Pharmaceut	REGN	REGN US	United States	66,095	B-2-9	Biotech	Medium	No	Regeneron Pharmaceuticals is a biopharmaceutical company focused on the development of therapeutic human antibodies for the treatment of eye disorders, hypercholesterolemia, cancer, inflammation, and other diseases. Regeneron's product sales are driven principally by its VEGF inhibitor Eylea.



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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Healthcare Digitalisation									
Teladoc	TDOC	TDOC US	United States	13,037	C-2-9	Healthcare Digitalisation	Medium	No	Teladoc provides virtual access to healthcare providers with services covering 450 medical subspecialties from non-urgent, episodic needs to chronic, complicated medical conditions like cancer and congestive heart failure. The company has 26MM+ subscription members across 10,000+ employers and 40+ health plans, and has completed approximately 2.6MM telehealth visits in 2018.
M3	MTHRF	2413 JP	Japan	20,591	B-3-7	Healthcare Digitalisation	Medium	No	Founded in Sep 2000 with the aim of leveraging Internet to revolutionize healthcare. M3 launched the MR-kun service in Oct 2000 followed by Research-kun in Aug 2002. In Jul 2003 it merged its medical sites into the m3.com medical portal. It has expanded its services and moved into the US and UK markets, using M&A to broaden business domains.
Cerner Corporation	CERN	CERN US	United States	21,833	B-1-7	Healthcare Digitalisation	Medium	Yes	Largest standalone healthcare IT company. The company's core EHR product is its Cerner Millennium platform, which serves as the base for its broader solutions offering. Cerner also sells a number of additional services offerings, leveraging its clinical infrastructure and large installed base.
Veeva Systems, Inc.	VEEV	VEEV US	United States	19,520	B-1-9	Healthcare Digitalisation	Medium	Yes	Veeva Systems is a cloud provider of Customer Relationship Management (CRM) software for sales representatives in the life sciences industry. The company also sells a complementary document management system for research/development and marketing documentation at life sciences firms. 45 of the 50 largest life sciences firms are Veeva customers.
WuXi Biologics	WXIBF	2269 HK	China	17,959	C-1-7	Healthcare Digitalisation	Medium	Yes	Subsidiary of WuXi AppTec (gene therapy R&D, molecular testing and genomics), Global open-access and integrated biologics Technology platform, which provides a comprehensive, integrated and highly customizable range of services for Drug Discovery, development and manufacturing of biologics.
IQVIA Holdings	IQV	IQV US	United States	17,167	B-1-9	Healthcare Digitalisation	Medium	Yes	Leading global provider of information, technology solutions, and contract research services. The company is the world's largest CRO (contract research organization) and the largest source of drug utilization data. IQV is focused on using data, advanced analytics, and science to help healthcare stakeholders find better solutions for patients.
Divis Lab	XXQPF	DIVI IN	India	8,213	B-1-7	Healthcare Digitalisation	Medium	Yes	One of the leading pharmaceutical companies in the contract manufacturing and pharmaceutical outsourcing market (CRAMS). Divi's strength lies in the manufacturing of leading generic compounds, nutraceutical Ingredients and custom synthesis of APIs and intermediates. Company is investing in expanding its capacity and is committed towards providing sustainable chemistry to its customers.
ICON	ICLR	ICLR US	United States	7,984	B-1-9	Healthcare Digitalisation	Medium	Yes	Global contract research organization (CRO) providing clinical development services to pharmaceutical, biotechnology and medical device industries. The company offers solutions, from compound selection to Phase I-IV clinical studies with the goal of accelerating the development of drugs and devices that save lives and improve the quality of life.
PPD	PPD	PPD US	United States	6,919	C-1-9	Healthcare Digitalisation	Medium	Yes	PPD is a global contract research organization (CRO) providing clinical development and laboratory services to pharmaceutical, biotechnology, medical device, academic, and government organizations. Through its services and solutions, PPD seeks to help customers accelerate the development of safe and effective medicines and maximize returns on their R&D investments.
Charles River	CRL	CRL US	United States	6,351	B-2-9	Healthcare Digitalisation	Medium	No	Leading contract research organization (CRO) that offers animal research models and preclinical drug development services to drug sponsors and academic and government customers. Charles River is the leading provider of animal research models and preclinical drug development services.
PRA Health Scien	PRAH	PRAH US	United States	5,163	B-1-9	Healthcare Digitalisation	Medium	Yes	Contract research organization (CRO) providing outsourced clinical development (i.e., Phase I-IV) services to the biotechnology and pharmaceutical industries. The company offers traditional, project-based Phase I-IV services and is one of the pioneers in the embedded CRO engagement model, also offering flexible functional service provider (FSP) solutions.
Premier, Inc.	PINC	PINC US	United States	4,840	B-1-9	Healthcare Digitalisation	Medium	Yes	Second largest group purchasing organization (GPO), aggregating more than \$60Bn of medical supply spend for its hospital/provider customers. The company, both organically and through acquisitions, offers additional capabilities to its customer base. These include analytics tools, workflow enhancements, specialty pharmacy, direct sourcing, and other items.
Change Healthcare	CHNG	CHNG US	United States	3,159	B-1-9	Healthcare Digitalisation	Medium	Yes	Change Healthcare is one of the largest health IT companies in the US, with a focus on both technology as well tech-enabled services. The company's claims processing business (within its Network segment) processes more than 14Bn claims annually encompassing more than \$1Tn of total healthcare spend.
HealthEquity	HQY	HQY US	United States	2,826	C-1-9	Healthcare Digitalisation	Medium	Yes	Provides a platform for health savings accounts (HSAs) that allows consumers to save for healthcare expenses in a tax efficient manner, compare treatment options, pay bills, and access benefits information.

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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Allscripts	MDRX	MDRX US	United States	1,083	B-1-9	Healthcare Digitalisation	Medium	Yes	Integrated healthcare IT company, selling both ambulatory and inpatient electronic health record (EHR) solutions along with a variety of affiliated software and services. The company's core Sunrise hospital suite and TouchWorks physician suite serve as the key product base, with a growing range of connectivity, population health, and other tools. The company is based in Chicago.
BioPharma									
Johnson & Johnson	JNJ	JNJ US	United States	410,228	A-1-7	BioPharma	High	Yes	Partnership with Google Verily in Verb Surgical (surgical robotic platform powered by AI), using Apple Watch's ECG in healthtech study, acquired Auris Health robotics surgery company focused on lung cancer in 2019, Johnson & Johnson is a leading global health care company that develops, manufactures and markets products in pharmaceuticals, medical devices and consumer health.
Roche Holdings	RHHBF	ROG SW	Switzerland	295,166	A-1-7	BioPharma	High	Yes	Genentech subsidiary partnership with 23andMe and Human Longevity Inc, big data deals with Foundation and acquired Flatiron which is a oncology-focused electronic health records company, working with medical research machine learning startup Owkin.
Novartis	NVSEF	NOVN SW	Switzerland	201,738	A-1-7	BioPharma	High	Yes	Novartis is a Swiss-based pharmaceuticals group. Its three key divisions are Pharmaceuticals (primary care and speciality medicines), Sandoz (generic pharmaceuticals), and Alcon (eye care). Key products include Diovan (hypertension), Gleevec (CML and GIST), Tasigna (CML) and Gilenya (MS)
Pfizer	PFE	PFE US	United States	216,162	A-2-7	BioPharma	High	No	Partnered with another AI-driven startup XtalPi to develop a drug discovery software platform, evaluation agreement with Atomwise AI-developing startup to identify promising drug candidates for up to three proteins of choice by Pfizer, only pharma company to have publicly promoted a drug discovery partnership using IBM Watson,
Eli Lilly	LLY	LLY US	United States	153,059	B-1-7	BioPharma	High	Yes	Biopharma company with a diversified therapeutic focus. LLY's products are focused on treating disease conditions such as diabetes, cancer, immunology and central nervous system disorders, robotic cloud laboratory provider Transcriptic announced that Lilly would use its AI-powered technology to enable on-demand drug discovery operations.
Novo Nordisk	NONOF	NOVOB DC	Denmark	142,490	B-1-7	BioPharma	High	Yes	Drugs for insulin and diabetes care, research collaboration with eTherapeutics with an AI computer-based drug discovery platform for type 2 diabetes, included artificial intelligence as a focus of its September 2018 reorganization.
Bristol-Myers Squibb	BMJ	BMJ US	United States	131,788	B-1-7	BioPharma	High	Yes	Applying machine-learning based computational approaches to discover therapeutics, applying its proprietary data mining technology ATLANTIS™ to identify potential drug candidates.
Amgen Inc.	AMGN	AMGN US	United States	128,832	B-1-7	BioPharma	High	Yes	KRAS - precision medicine and is considered the "holy grail" of therapeutic targets in cancer. Amgen has used AI from cloud providers like Google and Amazon to analyse trial data. Managed to shave 3 years off the time it takes to get a drug to market from the R&D, which averages 10-15 years.
Sanofi	SNYNF	SAN FP	France	116,588	A-1-7	BioPharma	High	Yes	Partnership with Exscientia which is a company that uses AI to develop new drugs faster with its edge-cutting technology for the design of new drugs with applications in diabetes and related co-morbidities such as cardiovascular disease.
AstraZeneca	AZNCF	AZN LN	United Kingdom	133,703	B-1-7	BioPharma	High	Yes	AI drug discovery collaboration with Berg, Benevolent AI, partnership with Horizon Discovery on gene editing, Human Longevity has a 10 year deal with AstraZeneca to sequence and analyze up to 500,000 DNA samples from AstraZeneca clinical trials, partnership with Alibaba and Tencent to apply technology including AI to patient diagnosis and treatment
GlaxoSmithKline	GLAXF	GSK LN	United Kingdom	95,373	A-2-7	BioPharma	High	No	Partnership with CRISPR pioneers Jennifer Doudna and Jonathan Weissman, \$300 million stake in 23andMe (consumer genomics), Partnered with startups including Exscientia and Insilico Medicine, Galvani / Verily (bioelectronics partnership), formed a drug design collaboration with Cloud Pharmaceuticals, in-house AI unit called "In Silico Drug Discovery Unit"
Gilead Sciences Inc.	GILD	GILD US	United States	99,047	B-2-7	BioPharma	High	No	Partnership with Insitro on 3 year deal to find new nonalcoholic steatohepatitis (NASH) i.e. fatty liver drugs - that is fast becoming a global epidemic fueled by poor diet and lack of exercise.
Vertex Pharmaceutica	VRTX	VRTX US	United States	66,155	B-1-9	BioPharma	High	Yes	Partnership with Genomics to use human genetics and machine learning to improve discovery of targets for precision medicines, Biopharmaceutical company focused on the discovery, development, and marketing of new therapies for the treatment of cystic fibrosis.
Chugai Pharm.	CHGCF	4519 JP	Japan	59,693	B-2-7	BioPharma	High	No	Major ethical drug producer, trying to increase overseas earnings via Roche's sales network. Key strengths in oncology, bone and joints, and kidney fields. Mainstay drugs include antibody therapeutics that have limited exposure to patent expiry. No ADRs.
Hengrui Medicine	XMOKF	600276 CH	China	56,439	B-1-7	BioPharma	High	Yes	Research focused pharmaceutical company in China using big data in its clinical trials, the company develops and produces medicines for a wide range of medical disciplines, including oncology, surgical medicine, cardiology and neurology. Hengrui is tapping into overseas pharmaceutical market through ANDAs.



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Merck KGaA	MKGAF	MRK GR	Germany	54,574	A-2-7	BioPharma	High	No	Hybrid company of Biopharma and Life Sciences/CRISPR businesses (Millipore and Sigma-Aldrich), partnership with Canadian startup Cyclica's, Merck and Accenture are working with AWS to create a cloud-based platform that would embrace collaborators across various sectors of the life sciences industry, has a confidential project with Atomwise
Daiichi Sankyo	DSKYF	4568 JP	Japan	44,861	B-1-7	BioPharma	High	Yes	Integration of Sankyo and Daiichi Pharmaceutical, anti breast cancer drug DS-8201 is promising new drug candidate in pipeline, Precision Medicine company, Positive P1/2 data is confirmed and It will be filed in 2019 and launch in 2020
BioMarin	BMRN	BMRN US	United States	17,120	B-1-9	BioPharma	High	Yes	Focused on development and commercialization of drugs for the treatment of serious rare and ultra-rare diseases.
Grifols - A	GIFLF	GRF SM	Spain	14,065	B-1-7	BioPharma	High	Yes	Partnered with Alkahest young blood transfusion company in parabiosis, leading manufacturer of blood plasma-derived therapies (primary competitors CSL and Shire) in its Bioscience division. It is also a manufacturer and distributor of blood diagnostics equipment and reagents and its Hospital division produces a variety of products used in hospitals
Genmab	GNMSF	GMAB DC	Denmark	10,560	B-1-9	BioPharma	High	Yes	Antibody company that uses its proprietary technology to generate fully human antibodies to disease targets provided by its collaborators, Darzalex anti-CD-38 for multiple myeloma a number of partnerships with large biotech/big cap pharma.
Ono Pharm.	OPHLF	4528 JP	Japan	10,218	B-3-7	BioPharma	High	No	Japan pharma co, collaboration with AI company twoXAR to discover and develop treatments for an unspecified neurological disease, Ono is specialized in prescription drugs and focuses on compounds in its unique R&D activities. anti-cancer drug, Opdivo, accounts for the bulk of company's enterprise value. Future cash usage will be the key management issue
BeiGene Ltd	XBETF	6160 HK	China	12,390	C-1-9	BioPharma	High	Yes	Globally focused biotech company dedicated to the development and commercialization of innovative drugs. BeiGene is the only China biotech to own a BTK inhibitor, a PD-1 antibody and a PARP inhibitor, all in late stage development. The company has built a strong internal R&D team, a sales force selling three commercial drugs from Celgene, and manufacturing facilities.
H. Lundbeck A/S	HLUKF	LUN DC	Denmark	8,744	B-3-7	BioPharma	High	No	Specialised in psychiatric and neurological disorders. Lundbeck is focussed on four diseases, Alzheimer's disease, depression, Parkinson's and schizophrenia. It is 70% owned by the Lundbeck Foundation
Ipsen	IPSEF	IPN FP	France	5,248	B-2-7	BioPharma	High	No	Has adopted a partnership/out-licensing based model to allow it maximise the commercial value of its assets. Tercica, a US biotech firm, the US operations of Vernalis and all the OBI-1 assets from Octagen), AI drug discovery partnership with Owkin
NEW CONSUMER									
Digital Entertainment									
Netflix	NFLX	NFLX US	United States	188,875	B-1-9	Digital Entertainment	Medium	Yes	Netflix is a global leader in the subscription video on demand market and a creator of high quality original content. Netflix service allows users to stream licensed and original content directly to their TVs, PCs, and mobile devices instantly, charging a monthly subscription fee. Netflix is available in over 190 countries and has over 165mn global subscribers.
Walt Disney Co.	DIS	DIS US	United States	158,838	B-1-7	Digital Entertainment	High	Yes	US diversified media companies and is the leader in producing branded family entertainment, growing video streaming presence, Key assets include its theme parks, the ABC TV Network, ESPN and other Cable Networks, Film Studios and Consumer Products. Limited exposure to personal data mining and likely to grow in subscription streaming, reducing privacy risks further.
Sony	SNEJF	6758 JP	Japan	73,676	B-1-7	Digital Entertainment	Low	No	Content beneficiary of music streaming, Sony Music Entertainment is 9% of revenues // World-class electronics brand founded by Masaru Ibuka and Akio Morita in 1946. Well-known entertainment conglomerate ranging from AV equipment to games, movies, music and finance. Following CMOS imagers, games and music are expected to drive Sony's earnings.
Vivendi	VIVEF	VIV FP	France	25,981	A-1-7	Digital Entertainment	High	Yes	Universal Music Group (UMG) is music content market leader on recorded music (c30% market share) and #2 in music publishing. Positive exposure to music streaming which has less privacy risk exposure.
Spotify	SPOT	SPOT US	Luxembourg	24,250	B-1-9	Digital Entertainment	Medium	Yes	SPOT owns the largest streaming music subscription service in the world, controlling a 42% market share via 157mn total monthly active users (MAUs), 90mn ad-supported MAUs and 71mn premium subscribers across 65 countries and territories. SPOT generates 90% of its revenues from premium service subscriptions and 10% of its revenue from advertising.
Twitter	TWTR	TWTR US	United States	19,201	C-1-9	Digital Entertainment	Medium	Yes	Leading social platform for interaction (tweets), Gnip division is a social data aggregator serving around 95% of the Fortune 500 companies in 40 countries, and they collect over 25bn social datapoints each day. 300mn+ MAU on Twitter platform.

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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Tencent Music	TME	TME US	China	17,456	C-1-9	Digital Entertainment	High	Yes	Tencent Music is a leading online music platform in China. After a merger with China Music Corp, it now operates multiple music apps including QQ Music, Kogou and Kowo, and WeSing. Its business models include membership subscriptions, purchases of digital albums, virtual gifting to live performers and karaoke singers, sublicensing and advertising.
Snap Inc	SNAP	SNAP US	United States	16,295	C-1-9	Digital Entertainment	High	Yes	Snap, Inc. is a social media company consisting of leading social media platform Snapchat and hardware device Spectacles. Through Snapchat, the company facilitates communication through visual media. Users are able to share content and are exposed to publisher content. Advertisers use the platform to promote products, which has a strong reach with the coveted millennial demographic.
QIYI	IQ	IQ US	China	13,362	C-2-9	Digital Entertainment	High	No	QIYI is a leading online video streaming platform in China offering a variety of entertainment content. It generates revenues mainly from membership services and online advertising services, and to a much lesser extent, content distribution, live broadcasting services and online games. As a subsidiary of Baidu, it has close cooperation with Baidu in technology, user traffic and infrastructure.
Bilibili	BILI	BILI US	China	9,896	C-1-9	Digital Entertainment	High	Yes	Originated as an ACG content community in 2009, Bilibili has evolved into a full-spectrum online entertainment platform with targeted users from generation Z (those born between 1990 and 2009). Bilibili attracts users with engaging PUGC which combines creative user generated content and high quality professionally generated content.
Roku, Inc.	ROKU	ROKU US	United States	9,150	C-1-9	Digital Entertainment	Medium	Yes	Roku is a key player in the growing over-the-top (OTT), or video streaming services market. Through the sale of streaming players and offering the Roku TV operating system on select smart TVs, Roku offers users a way to access various applications. Roku's strategy focuses on acquiring active accounts and then monetizing them primarily through advertising revenues.
Momo	MOMO	MOMO US	China	4,903	C-1-8	Digital Entertainment	High	Yes	Momo is a leading social networking co in China, has distinct advantages in the convergence of live broadcasting and social, and is still in early phase of monetization. It is the third largest social networking co in terms of monthly active users and has the highest share in time spent among its live broadcasting peers while revenue per user is still modest, implying further room to grow.
YY	YY	YY US	China	4,707	C-1-9	Digital Entertainment	Medium	Yes	YY is one of the more experienced live-broadcasting platforms with user-generated content (UGC). It has the highest share on revenue/time spent and rides the growing popularity of live broadcasting and new content. It has been introducing new features and interactive games into its live broadcasting content.
Peloton	PTON	PTON US	United States	1,429	C-1-9	Digital Entertainment	Medium	Yes	Peloton is the largest Global interactive fitness platform with a community of over 1.4 million Members. The company offers workout Bike and Tread which include a touchscreen that streams live and on-demand classes for indoor cycling, running, walking, bootcamp, yoga, strength training, and meditation. The company serves customers in the U.S., Canada, UK, and Germany.
eSports									
Activision	ATVI	ATVI US	United States	46,295	B-1-7	Video Games	Medium	Yes	Activision-Blizzard is a leading US-based publisher and distributor of interactive software games for all major platforms. The company is headquartered in Santa Monica, CA, but has studios and offices globally. Key franchises for the company include Activision's Call of Duty, and Skylanders, Blizzard's Overwatch, World of Warcraft, Diablo, and Starcraft and King's Candy Crush.
Electronic Arts	EA	EA US	United States	34,508	B-2-9	Video Games	Medium	No	EA is one of the largest independent publishers of interactive games for all platforms, including game consoles, PC's and mobile devices. The company is realizing a greater percentage of revenues from digital platforms, which may enhance margins and lead to more sustainable revenue growth. Key franchises for the company include Madden, FIFA, Need for Speed, etc.
Sea Limited	SE	SE US	Singapore	23,264	C-1-9	Video Games	Medium	Yes	Sea Limited is a mobile and PC gaming platform and developer (Garena) and an e-commerce marketplace operator (Shopee) in ASEAN and Taiwan. Sea also runs digital payments platform supporting the two businesses (AirPay). The company is a leader in the region based on market share in online gaming, has a strong market share by GMV and orders in e-commerce.
Take-Two	TTWO	TTWO US	United States	14,479	B-1-9	Video Games	Medium	Yes	Take-Two is a publisher and distributor of interactive software for gaming platforms from Sony, Microsoft, and the PC. The company is headquartered in New York, with development studios located around the world. Key franchises include Grand Theft Auto, Red Dead, Civilization, Borderlands, and Bioshock, as well as several licensed sports products such as NBA 2K and WWE.
NCSOFT	NCSOF	036570 KS	Korea, Republic Of	11,261	B-1-7	Video Games	High	Yes	NCSOFT, founded in 1997, is a leading global online game company specializing in the MMORPG segment. NCSOFT specializes in developing and publishing hardcore MMORPG titles such as Lineage 1, Lineage 2, and AION.



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Ubisoft	UBSF	UBI FP	France	9,397	B-1-9	Video Games	Medium	Yes	UBI is a leading publisher of software for gaming platforms from Sony, Microsoft, Nintendo, Mobile, and the PC. UBI owns several of the most-popular franchises in the gaming industry incl. Assassin's Creed, Far Cry, and the Tom Clancy series, and its studio have a strong reputation for consistently delivering high-quality games.
ZYNGA	ZNGA	ZNGA US	United States	7,302	B-3-9	Video Games	Medium	No	Zynga is a leading developer of mobile and Social games. The company has developed a broad portfolio of games that includes several games on Facebook and several top-grossing Mobile apps. Key franchises include FarmVille, Zynga Poker, Hit it Rich Slots, and Words with Friends.
Netmarble	XLGHF	251270 KS	Korea, Republic Of	6,583	B-3-7	Video Games	High	No	Netmarble is a leading mobile game company with an estimated 35-40% market share in Korea and 5.5% share in the global market. Netmarble has strong mobile game execution capabilities, ranging from casual to MMORPG genres. Global expansion is on track with success of its US-based subsidiaries Kabam and Jamcity. Key titles include Lineage 2 Revolution, Everybody's Marble, etc.
Huya	HUYA	HUYA US	China	3,131	C-1-9	Video Games	Medium	Yes	Huya is the leading game broadcasting platform in China. It has 117mn MAUs and 50mn mobile MAUs as of 4Q18. Leveraging the community of gamers, audiences, broadcasters, and talent agencies, Huya offers comprehensive content with a primary focus on games. It also worked with over 140 eSports event organizers and broadcasted over 760 eSports tournaments in 2018.
Douyu	DOYU	DOYU US	China	2,165	C-1-7	Video Games	Medium	Yes	Douyu is one of China's go-to game streaming platforms with a large users and game-focused content. It has 159m MAUs, 49m mobile MAUs, 56 minutes daily time and 70%+ next-month retention as of 1Q19. Game and eSports content contributed to 80%+ streaming hours, 70%+ hosts, and 50% live streaming revenue in 2018.
AfreecaTV	WNTHF	067160 KS	Korea, Republic Of	555	C-1-7	Video Games	High	Yes	AfreecaTV is Korea's largest free live broadcasting platform. Nearly 60% of the platform's traffic comes from broadcasting gaming content, whereas entertainment, sports and other broadcasts form 40% of its traffic. The company monetizes its traffic via sale of virtual items (80% revenue share) and online advertisements (15%)
Food (Online, Retail, Staples)									
Walmart	WMT	WMT US	United States	385,448	B-1-7	Food	Medium	Yes	Walmart is the world's largest retailer, operating retail stores under the formats of Walmart Stores, Supercenters, Neighborhood Markets and Sam's Club locations in the United States as well as a growing e-commerce business (including Jet.com). Internationally Wal-Mart also operates locations in several countries globally.
Nestle	NSRGF	NESN SW	Switzerland	320,053	A-1-7	Food	Medium	Yes	Nestle is the world's leading food manufacturer with activities in coffee, bottled water, milk products and dietetics, prepared dishes and pet food, chocolate & confectionery and consumer health. The company holds a 23% stake in L'Oreal and has JV agreements with several companies.
Coca Cola	KO	KO US	United States	195,406	A-1-7	Food	Medium	Yes	Coca-Cola (KO) is the world's largest manufacturer of soft-drink concentrate and syrups. It enjoys a 50% share of the world's carbonated soft drink (CSD) market (and 44% share of the US market) and continues to grow its portfolio of non-CSD brands as consumers' diets shift. Over 70% of its profits are derived outside of the US. Key brands include Coca-Cola trademark, Sprite, Fanta, etc.
PepsiCo	PEP	PEP US	United States	189,185	A-1-7	Food	Medium	Yes	PepsiCo, a global snack and beverage company. Brands include Pepsi Cola, Mountain Dew, Gatorade, Tropicana, Frito-Lay, Quaker, among others.
The Kroger Co.	KR	KR US	United States	32,801	B-1-7	Food	Medium	Yes	Kroger is the second largest U.S. food supermarket retailer in the U.S. and generates \$120 billion in annual sales. Kroger operates roughly 2,800 supermarkets throughout 35 states and under two dozen banners. Kroger also sells fuel at its 1,450 supermarket fuel centers and operates 2,268 pharmacies and 274 jewelry stores.
Ahold Delhaize	ADRNY	ADRNY US	Netherlands	30,366	B-1-7	Food	Medium	Yes	Ahold Delhaize's main market is the US (63% of sales), where it operates through five banners on the East coast: Stop & Shop, Giant-Landover, Giant-Carlisle, Hannaford and Food Lion. The Group holds a top 3 position in each of its regional markets. AD is mainly a supermarket player with an exposure to online (Peapod in the US and bol.com in Benelux).
Tesco	TSCDF	TSCO LN	United Kingdom	27,171	B-3-8	Food	Medium	No	Tesco is the No.1 food and non-food retailer in the UK and one of the largest retailers globally. It operates in 11 countries through several formats ranging from Express (convenience) to Metro to Extra (hypermarket). Other Retail Services such as tesco.com, Tesco Mobile and Tesco Bank should continue to be growth drivers.
Kellogg	K	K US	United States	21,774	A-1-7	Food	Low	No	Morningstar Farms - Kellogg is the global leader in breakfast cereal, as well as a leader in categories such as cookies, crackers, cereal bars and toaster pastries. Kellogg is a focused organization with 82% of sales coming from three businesses. Over 60% of total sales are in the US, but the company has a growing presence in Europe, Latin America and Asia/Pacific.
Campbell Soup	CPB	CPB US	United States	15,346	B-3-7	Food	Medium	No	Campbell Soup is a leading U.S. processor and marketer of snack, soup, other simple meals, baked goods and healthy beverages. Its portfolio of well-known brands includes Campbell Soup, Pepperidge Farm, V8, Prego, and Snyder's Lance.

Table 2: Companies with exposure to themes and sub-themes that could be beneficiaries in “The World After Covid”

Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Domino's Pizza	DPZ	DPZ US	United States	14,460	B-1-7	Food	Medium	Yes	Domino's Pizza is the No.1 pizza delivery company in the world with roughly 16,000 stores in 50 states and more than 70 countries. DPZ's system is >97% franchised and 63% of stores are located internationally. The company has been benefitting from a steadily growing online/digital ordering mix that currently represents over 60% of domestic orders and has a long runway for growth.
Coles	CLEGF	COL AU	Australia	13,992	B-1-7	Food	Medium	Yes	Coles is a major Australian supermarket operating c.800 stores selling fresh foods, groceries, liquor and fuel. It has around 30-35% market share and its major competitor Woolworths possesses around 40-45% market share. Coles was demerged from the Wesfarmers group in Nov-18.
Carrefour	CRERF	CA FP	France	12,095	A-1-7	Food	Medium	Yes	Carrefour is the world's second-largest food retailer by sales, with a leading position in France, along with top-three market positions in countries such as Spain and Brazil. Carrefour operates in 10 countries with c.3,100 stores. It also has a presence in other countries through various franchise agreements. Stores under Carrefour banners total more than 10,000 across the world.
Jeronimo	JRONF	JMT PL	Portugal	10,996	B-1-7	Food	Medium	Yes	Jeronimo Martins generates 68% of its sales in Poland, where it has a leading position with a 24% market share for modern retail, through its discount format Biedronka. It also operates in its home market of Portugal and has operations in Manufacturing and in Services. The group is currently in the initial stages of expansion into Colombia and of its drugstore Hebe in Poland.
Sainsbury	JSNSF	SBRY LN	United Kingdom	5,840	B-2-8	Food	Medium	No	Sainsbury is the third biggest food retailer in the UK by share. The group has been relatively more resilient to sales pressures over the last two years. The group has been good at flexing stores for locality while its Southern bias has better sheltered it from discount growth so far.
Morrison Wm	MRWSF	MRW LN	United Kingdom	5,387	A-3-7	Food	Medium	No	Morrisons is the UK's fourth-largest food retailer. The group has been transformed over recent years, although there are many more enhancements ahead. Morrisons has, however, not been immune to the structural changes in the UK food retail market.
BJ's Wholesale	BJ	BJ US	United States	3,198	B-1-9	Food	Medium	Yes	BJ's Wholesale Club, Inc. operates 218 warehouse clubs in 17 states, primarily in the Eastern US. BJ's offers its members brand-name and private label food, general merchandise, gasoline and other specialties. BJ's is based in Westborough, Massachusetts and was founded in 1984.
eCommerce									
Prosus	XXPNF	PRX NA	Netherlands	130,591	B-1-9	eCommerce	Medium	Yes	Naspers is a media conglomerate with exposure to best in-class social-networking, games, e-commerce (e-tail, on-line classified, on-line travel) across GEMs // Investments in Delivery Hero (food), Makemytrip (travel)
Meituan Dianping	MPNGF	3690 HK	China	65,321	C-1-9	eCommerce	High	Yes	China's leading multi-category service eCommerce platform, Meituan offers diversified services to customers covering daily needs for food, travel and broad lifestyle services. Meituan also provides merchants with various value-added solutions such as software, supply chain management, marketing and payment.
Naspers	NAPRF	NPN SJ	South Africa	61,585	B-1-7	eCommerce	Medium	Yes	Naspers is a media conglomerate with exposure to best in-class social-networking, games, e-commerce (e-tail, on-line classified, on-line travel) across GEMs // Investments in Delivery Hero (food), Makemytrip (travel)
JD.com	JD	JD US	China	52,663	C-1-9	eCommerce	High	Yes	JD.com is a leading eCommerce platform with both a direct sales model and a marketplace that supports third-party merchants. The company has been investing in logistics infrastructure consisting of warehouses and a delivery network that enables fast delivery.
Prologis, Inc.	PLD	PLD US	United States	62,806	B-1-7	eCommerce	Medium	Yes	Prologis owns, develops, and manages the largest global portfolio of industrial real estate, concentrated in markets for global trade, regional distribution markets and large population centers. The portfolio concentration is about 80% in the Americas, 17% in Europe and the remainder in Asia. Prologis also operates the largest industrial property fund platform for large institutional investors.
eBay Inc	EBAY	EBAY US	United States	38,259	B-2-9	eCommerce	High	No	eBay operates a leading online eCommerce marketplace that enables consumers to purchase goods globally. eBay has more than 170mn active users and generated roughly \$88bn in gross merchandise volume in 2017. eBay also operates Stubhub, Half.com, brands4friends and a number of classifieds businesses globally.
Mercadolibre	MELI	MELI US	Argentina	22,607	C-1-9	eCommerce	Medium	Yes	MercadoLibre is Latin America's largest online marketplace operator, with a presence in 13 countries. The company also operates online classifieds with listings for real estate, vehicles and services, and an online payments solution, MercadoPago.
Chewy	CHWY	CHWY US	United States	13,779	C-1-9	eCommerce	High	Yes	Chewy is an eCommerce company specializing in pet supplies. Chewy currently operates only in the United States and only online. It boasts over 12 million customers who spend over \$350 each annually on average. The company operates 8 fulfillment centers and differentiates its offering on its 1600+ pet specialist customer reps.



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Ocado	OCDGF	OCD LN	United Kingdom	12,066	B-1-9	eCommerce	High	Yes	Ocado is a pure-play online supermarket with >16% share of the UK online grocery market. It is a centralised pick model, fulfilling its orders via four automated warehouses, with plans underway for more. Ocado offers a unique end-to-end platform solution for online retailing, and signed its first deal with Morrisons in 2013. Ocado has been able to roll out the platform as a service to retailers globally (already 7 partners), thereby commercialising the value of its IP.
Zalando	ZLDSF	ZAL GR	Germany	10,314	B-1-9	eCommerce	High	Yes	Zalando is the largest pure-play online apparel & footwear retailer in Europe with c.10% market share and operates in 17 European countries. It offers a one-stop fashion destination with more than 300,000 fashion articles, including shoes, apparel and accessories, from over 2,000 brands.
Wayfair	W	W US	United States	6,375	C-1-9	eCommerce	Medium	Yes	Wayfair is a multi-brand eCommerce company that offers one of the widest selections of furniture, home goods, home decor and housewares online. Wayfair operates five eCommerce brands: Wayfair.com, Perigold, Joss & Main, AllModern, and Birch Lane. Wayfair exited 2017 with nearly 11 million active customers and shipped more than 19 million orders.
boohoo Group PLC	BHHOF	BOO LN	United Kingdom	4,525	B-1-9	eCommerce	High	Yes	boohoo sells 100% own-brand clothing, shoes and accessories. It is a pure online player and comprises three brands: boohoo, PrettyLittleThing, and Nasty Gal. boohoo targets the 18-24yo demographic with very short lead times (sometimes as low as two weeks), and low price points.
GrubHub	GRUB	GRUB US	United States	3,717	C-3-9	eCommerce	High	No	Grubhub is the leading online and mobile provider of food delivery and pick-up services (take-out). Its software powers take-out orders for 125,000 local independent restaurants across the US and is a solid play on the increasing consumer use of web-based platforms to conduct transactions. Grubhub has over 16mn Active Diners and processes more than 400k orders each day.
ASOS	ASOMF	ASC LN	United Kingdom	2,476	C-3-9	eCommerce	High	No	ASOS is the UK's largest pure online fashion retailer. ASOS offers c.85,000 highly fashionable branded and own brand products (ASOS Design) to fashion-conscious "20-somethings". ASOS sells its products in c.200 countries outside the UK and had global ambitions, as highlighted by its new US warehouse in Atlanta opened in 2018. ASOS own brand products represent c.40% of its sales.
Revolve	RVLV	RVLV US	United States	160	C-2-9	eCommerce	High	No	REVOLVE Group, Inc. is an eCommerce fashion retailer focused on Millennial and Generation Z consumers. The Company sells women's designer apparel, footwear, accessories and beauty styles through two differentiated segments, REVOLVE and FORWARD. The company generates high relative average order values (AOVs) vs peers with close to 80% of its total net sales in the US.
Learning									
Recruit HD	RCRRF	6098 JP	Japan	42,083	B-2-8	Learning	Low	No	Recruit's Main businesses are HR technology (Indeed), the media & solutions segment's marketing and HR sections, and staffing. HR technology accounts for 12% of EBITDA, media & solutions 60% (marketing 37%, HR 29%), and staffing 28% (FY3/18 IFRS basis, after all-company/ eliminations). It has ramped up its growth strategy via overseas M&A since 2010.
New Oriental	EDU	EDU US	China	17,248	B-1-9	Learning	High	Yes	New Oriental is the largest private education service provider in China, with exposure to overseas test preparation, domestic test preparation, K-12 tutoring, language training, online education, etc. New Oriental has around 6.3 million enrollments in fiscal year 2018. As of May 2018, the company had a network of 1,081 learning centers and schools.
GSX	GSX	GSX US	China	8,127	C-2-9	Learning	High	No	GSX is a Chinese company that operates two leading internet platforms offering live online courses to K-12 students (ages 4-18) in a large-class format of typically 800-1000 students per class. It uses a dual-teacher system. Over 80% of GSX's enrollments consist of K-12 students while foreign language and professional courses account for the rest.
Info Edge	FOEF	INFOE IN	India	3,950	C-3-8	Learning	Low	No	Online classifieds company present in verticals like recruitment, real-estate, matrimony and education. shiksha.com transforms existing users of other mediums into internet users for the education sector. The website provides tools that enable its users to make a well informed decision by interacting with a community of users, domain experts and college/school alumni.
Seek Limited	SKLTF	SEK AU	Australia	3,572	A-2-7	Learning	Medium	No	#1 online employment marketplace. International student placement & language testing, Swinburne Online.
Blackbaud, Inc.	BLKB	BLKB US	United States	2,411	B-3-7	Learning	Medium	No	Fundraising/CRM, financials, online and payments, specialized vertical applications (K-12 and art and culture segments)
Yuhua Education	XCYEF	6169 HK	China	2,355	C-1-7	Learning	High	Yes	YuHua is the largest provider of private education in China, with full coverage from the K-12 to university level. YuHua is also the third largest private university in China and the largest private fundamental education provider in Central China, according to F&S.
Pluralsight Inc	PS	PS US	United States	2,255	C-2-9	Learning	Medium	No	Pluralsight is a cloud provider of online learning coursework for IT professionals. It's IT learning platform provides skill assessments, a course library and analytics/reporting for presenting relevant coursework and gauging employee proficiency with technologies.

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DIY (Do it Yourself)									
The Home Depot	HD	HD US	United States	222,525	B-2-7	DIY (Do it Yourself)	Medium	No	Home Depot is the leading North American home improvement retailer, with over 2,200 stores, including about 184 stores in Canada and 110 in Mexico. HD sells to both the do-it-yourself and professional contractor markets.
Lowe's	LOW	LOW US	United States	74,793	B-1-7	DIY (Do it Yourself)	Medium	Yes	Lowe's Companies is a leading home improvement retailer with more than 2,000 stores in the US and Canada. The company is focusing investments on technology and ecommerce capabilities, in addition to improving its retail store productivity.
Kingfisher	KGFHF	KGF LN	United Kingdom	3,763	B-3-8	DIY (Do it Yourself)	Medium	No	Kingfisher is a leading home improvement company in Europe. B&Q is the UK #1 while Castorama & Brico Depot together hold a #2 position in France. Screwfix is a local trade specialist that has been driving growth recently. Also present in other European markets like Poland and Romania.
GEOPOLITICS & GLOBALISATION (+ SUSTAINABILITY)									
Industrial Automation									
Keyence	KYCCF	6861 JP	Japan	72,760	B-1-7	Industrial Automation	High	Yes	Keyence is one of Japan's largest manufacturers of sensors and vision systems, which are widely used in manufacturing to improve productivity. Its domestic business generates around 50% of its revenue. Its largest overseas market is Asia, followed by the Americas and Europe. Keyence operates an outsourcing manufacturing and direct distribution business model.
Siemens	SMAWF	SIE GR	Germany	68,072	A-1-7	Industrial Automation	Medium	Yes	Siemens is a global leader in electrical engineering. It focuses on energy (mainly gas turbines, power transmission and wind turbines), industry (automation and drives), health care and infrastructure and cities (transport, building technologies, power distribution). The company employs around 370,000 people.
Schneider	SBGSF	SU FP	France	52,157	A-2-7	Industrial Automation	Medium	No	A global leader in electrical distribution (medium/low voltages) and automation & control, Schneider offers products and services for residential, buildings, industry, energy and infrastructure markets.
Atlas Copco	ATLKF	ATCOA SS	Sweden	45,355	B-3-7	Industrial Automation	Medium	No	Atlas Copco develops and manufactures electric and pneumatic tools, compressed air equipment construction and assembly systems, it offers related service and equipment rental. The company has a global reach spanning more than 180 countries. In 2017, Atlas Copco had revenues of close to SE120bn and around 45,000 employees.
ABB Ltd.	ABLZF	ABBN SW	Switzerland	38,670	A-1-7	Industrial Automation	High	Yes	ABB is a global leader in power transmission and distribution (high and medium voltage) and automation technologies. The company operates five divisions - Power Products, Power Systems, Discrete Automation & Motion, Low Voltage Products and Process Automation. ABB operates in around 100 countries and employs more than 135,000 people.
Eaton Corp PLC	ETN	ETN US	United States	33,896	B-1-7	Industrial Automation	Medium	Yes	Eaton Corp. (ETN) is a leading diversified industrial manufacturer of fluid power systems, electrical control products, automotive systems, and medium- and heavy-duty truck transmissions.
Emerson	EMR	EMR US	United States	33,217	B-1-7	Industrial Automation	Medium	Yes	Emerson is a Missouri-based, diversified, global technology company. It designs and supplies product technology and delivers engineering services to industrial and commercial needs. Its products are offered under five platforms: Process Management, Network Power, Climate Technologies, Industrial Automation, and Commercial & Residential Solutions.
Mitsubishi Elec	MIELF	6503 JP	Japan	31,907	B-1-7	Industrial Automation	High	Yes	Mitsubishi Electric has demonstrated its leadership in industrial electronics and social infrastructure areas such as electric power plants, machinery and tools for buildings and manufacturing facilities, and environmentally friendly and high tech applications.
Fanuc	FANUF	6954 JP	Japan	28,434	B-2-8	Industrial Automation	High	No	Fanuc is the largest manufacturer of CNC equipment for machine tools globally and holds a 70% market share in Japan. The company is also a leading global manufacturer of multijoint robots. It also manufactures injection molding machines and electric discharge machines. R&D staff account for about one third of employees.
SMC	SMECF	6273 JP	Japan	26,747	B-1-7	Industrial Automation	Medium	Yes	SMC is the leading pneumatic equipment maker, holding just over 30% global market share. Rich product lineups, R&D ability and the shorter lead time are sources of its strong competitiveness. The company has been stepping up overseas sales expansion to increase its market share. Its subsidiary in China is a great advantage in terms of production.
Parker Hannifin	PH	PH US	United States	18,379	B-1-7	Industrial Automation	Medium	Yes	Parker Hannifin is an industrial supplier of hydraulics, motion and fluid control systems and components to diversified end markets. It operates under three segments: Industrial - North America, Industrial - International, and Aerospace.
Hexagon AB	HXGBF	HEXAB SS	Sweden	17,502	B-1-7	Industrial Automation	Medium	Yes	Hexagon is a supplier of systems for measurement of objects in one, two or three dimensions. The Metrology sub-division provides testing equipment for product testing and manufacture in automotive, aerospace, truck and manufacturing segments. The Geosystems segment provides satellite-driven testing and measurement systems used in surveying, heavy construction, and machine control.



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Teradyne	TER	TER US	United States	10,152	B-2-7	Industrial Automation	Medium	No	Teradyne is a supplier of automation equipment for test and industrial applications. The company designs automatic test systems (ATE) used to test semiconductors, wireless products, data storage, and electronic systems. Industrial automation products include collaborative robots used by global manufacturing and light industrial customers to improve manufacturing efficiency and reduce costs.
Delta Elect	DLTEF	2308 TT	Taiwan	9,543	B-3-7	Industrial Automation	Medium	No	Delta Electronics is engaged in three business segments 1) Power electronics: power supplies for conventional PC and consumer electronics, fans and thermal systems, 2) Energy management: industrial automation, telecom power systems, UPS and datacenter and EV charging 3) Smart green life: networking systems, display, LED lighting and healthcare devices.
Daifuku	DAIUF	6383 JP	Japan	8,469	B-2-7	Industrial Automation	Medium	No	Daifuku is one of the world's leading manufacturer in the material handling field. It provides solutions spanning diverse functions such as storage, transport, sorting, and information systems.
Yaskawa Electric	YASKF	6506 JP	Japan	8,094	B-3-7	Industrial Automation	High	No	Top global maker of industrial robots, servomotors and inverters, now has the highest shipments to-date in the world. It has high share of arc welding robots, liquid crystal glass sheet transfer robots. Motion control division is expanding overseas production and sales. Also involved in electrical control systems for steel / water treatment systems.
IPG Photonics	IPGP	IPGP US	United States	6,600	C-1-9	Industrial Automation	Medium	Yes	IPG Photonics is a vertically integrated manufacturer of fiber lasers with more than 65% share of the fiber laser market. It has both a technology and cost advantage with its internal diode and fiber manufacturing that should enable IPG to grow its share of the laser market. IPG divides its business into four segments: materials processing, advanced technology, medical and communications.
Inovance	XYMYR	300124 CH	China	7,636	B-2-7	Industrial Automation	High	No	Shenzhen Inovance Technology focuses on R&D, manufacture and sales of industrial automation control products, aiming to serve high-end equipment manufacturers. It was established in April 2003 and was listed on the SZSE in September 2010. The company is located in Shenzhen, China.
Advantech	ADTEF	2395 TT	Taiwan	5,559	B-3-7	Industrial Automation	Medium	No	Set up in 1983 and listed in 1999, Advantech manufactures and markets embedded personal computers, network computing products, industrial automation products and panel PCs. Advantech is one of the pioneers of the smart planet idea and kicked off development since 2008. Advantech is the global biggest IPC vendor.
KION	KNGF	KGX GR	Germany	5,569	B-1-8	Industrial Automation	Medium	Yes	KION Group provides material handling solutions including industrial trucks (forklift) and logistics automation systems. The company's brands include Linde, STILL, Baoli, Fenwick, etc. Besides new equipment, Kion also offers aftermarket services, rental and financial services. The company mainly sells products in Europe while also has presence in Americas and Asia.
Han's Laser	XHQTF	002008 CH	China	4,363	B-1-7	Industrial Automation	High	Yes	Han's Laser is the largest laser-based equipment maker in China, and its products are used for cutting, welding, marking and drilling a wide range of industrial materials such as glass and sapphire. It mainly sells equipment to EMS and auto part makers etc.
Spectris	SEPJF	SXS LN	United Kingdom	3,518	B-3-8	Industrial Automation	Medium	No	Spectris develops and markets precision instrumentation and controls with a focus on providing niche applications which have a direct impact on process performance for end user customers. Spectris employs around 7600 people worldwide.
IMI	IMIAF	IMI LN	United Kingdom	2,766	B-2-8	Industrial Automation	Medium	No	IMI is a leading international business supplying high value-added products to major global customers in growing niche markets. The company is split into 3 divisions: IMI Critical Engineering, IMI Precision Engineering and IMI Hydronic Engineering. Company employs over 12,000 people in over 50 countries around the world.
Nabtesco	NCTKF	6268 JP	Japan	2,605	B-1-7	Industrial Automation	High	Yes	Nabtesco holds a 60% global market share for precision reducers for industrial robots. It also holds a 50% domestic market share for railway rolling stock brakes. The company also holds high market share for actuators for aircraft and hydraulic equipment for construction machinery. It plans to do M&A to expand its overseas business.
ABB India	ABVFF	ABB IN	India	2,540	B-2-7	Industrial Automation	High	No	ABB India is the 75% subsidiary of ABB, the Swiss-Swedish electrical engineering company. In India, its operations mainly consist of T&D and industrial automation and control. Its businesses are divided into five segments: Power products, Power Systems, Discrete Automation and Motion, Low Voltage Products and Process Automation.
THK	THKLF	6481 JP	Japan	2,463	B-1-7	Industrial Automation	High	Yes	THK is a pioneer in linear motion systems (LMS), holding the largest global market share. It is trying to expand the use of LMS into consumer electronics. It also manufactures link balls (auto wheel components). There is growth potential in overseas markets. In China, the company has set up production subsidiaries to expand sales.
Jungheinrich	JGHAF	JUN3 GR	Germany	1,655	B-3-7	Industrial Automation	Medium	No	Jungheinrich AG manufactures battery, diesel, and gas-powered merchandise stackers and forklifts. The products are used in warehouses, production facilities, and for point-of-sales retail storage. It also produces warehouse automation and racking systems and offers financing/rental.

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Electric Vehicles									
Tesla	TSLA	TSLA US	United States	146,493	C-3-9	Electric Vehicles	High	No	US leader in electric vehicle (EV), could benefit from more stringent regulation on shift away from ICE to EV
Norilsk Nickel	NILSY	MNOD LI	Russian Federation	42,875	B-1-7	Electric Vehicles	High	Yes	Leading nickel miner, could benefit as part of supply / value chain supporting transition towards EVs with regulation
Panasonic	PCRFF	6752 JP	Japan	18,277	B-2-7	Electric Vehicles	High	No	Leading lithium battery supplier, could benefit as part of supply / value chain supporting transition towards EVs with regulation
Samsung SDI	SSDIF	006400 KS	Korea, Republic Of	16,520	B-3-7	Electric Vehicles	High	No	Leading lithium battery supplier, could benefit as part of supply / value chain supporting transition towards EVs with regulation
LGC	LGCLF	051910 KS	Korea, Republic Of	20,001	B-1-7	Electric Vehicles	High	Yes	Leading lithium battery supplier, could benefit as part of supply / value chain supporting transition towards EVs with regulation
Umicore	UMICF	UMI BB	Belgium	8,469	B-2-7	Electric Vehicles	Medium	No	Joint leader globally in emissions controls for the automotive industry, expertise in metal-based materials for batteries, construction, electronics and mining. Significant refining and metal recycling capabilities (e.g. for EV batteries) and has cathode/anode technology.
Albemarle	ALB	ALB US	United States	5,634	B-3-7	Electric Vehicles	High	No	Leading lithium miner, could benefit as part of supply / value chain supporting transition towards EVs with regulation
Sociedad Quimica	SQM	SQM US	Chile	5,617	B-3-8	Electric Vehicles	High	No	Leading lithium miner, could benefit as part of supply / value chain supporting transition towards EVs with regulation
BYD	BYDDF	1211 HK	China	5,348	C-2-7	Electric Vehicles	Medium	No	China leader in electric vehicle (EV), could benefit from more stringent regulation on shift away from ICE to EV
NIO	NIO	NIO US	China	3,427	C-2-9	Electric Vehicles	High	No	NIO started in November 2014, NIO designs, manufactures, and sells premium EVs in China, potentially benefiting on shift from ICE to EV which is partly driven by emission/EV regulation. Its vehicles feature vehicles connectivity, autonomous driving and artificial intelligence.
Clean Energy									
NextEra Energy	NEE	NEE US	United States	120,973	A-1-7	Clean Energy	High	Yes	Large primarily US based renewables operator would benefit from stricter Climate Change regulation
Iberdrola	BDSF	IBE SM	Spain	62,878	A-2-8	Clean Energy	High	No	Large EU based renewables operator (with assets in EU, US, LatAm) and would benefit from stricter Climate Change regulation
Orsted	DOGEF	ORSTED DC	Denmark	43,436	A-1-7	Clean Energy	High	Yes	Large primarily EU based renewables operator would benefit from stricter Climate Change regulation
Neste	NTOF	NESTE FH	Finland	24,720	C-2-7	Clean Energy	High	No	Global franchise in the renewables & refining business, focus on high quality traffic (bio)fuels that reduces environmental impact, could benefit from greater adoption of biofuels driven partly by regulation
Vestas	VWSYF	VWS DC	Denmark	16,800	B-1-8	Clean Energy	High	Yes	Leader in global wind turbine manufacturing, would benefit from stricter Climate Change regulation
Fortum	FOJCF	FORTUM FH	Finland	13,426	A-3-7	Clean Energy	High	No	Nordic power and heat utility, with a significant portfolio of low-carbon nuclear and hydro generation and a growing presence in environmental services and city solutions, able to benefit from stricter Climate Change regulation.
Avangrid	AGR	AGR US	United States	13,153	A-3-7	Clean Energy	High	No	US listed operating subsidiary of Iberdrola. Avangrid renewables owns primarily wind assets, with some solar and conventional assets. Well placed to benefit from stricter Climate Change regulation.
Siemens Gamesa	GCTAF	SGRE SM	Spain	10,158	B-2-8	Clean Energy	High	No	Leader in global wind turbine manufacturing, would benefit from stricter Climate Change regulation
Goldwind	XJNGF	2208 HK	China	5,261	C-1-8	Clean Energy	High	Yes	Leader in China wind turbine manufacturing, would benefit from stricter Climate Change regulation
Xinyi Solar	XYPJF	968 HK	China	4,894	C-1-7	Clean Energy	High	Yes	#1 solar glass manufacturer in China. The company has 26% of the solar glass market share in China, which accounts for about 90% of global capacity.
First Solar	FSLR	FSLR US	United States	4,403	B-2-9	Clean Energy	High	No	Largest vertically integrated solar manufacturer in the United States, would benefit from stricter Climate Change regulation, especially in its home state California.
China Longyuan	CLPXF	916 HK	China	3,888	B-1-7	Clean Energy	High	Yes	#1 wind power generator in China with a total wind power installed capacity of >18GW. Its wind farms are mainly located in the three Chinese Northeast provinces and southeast coastal areas.
Sustainable Packaging									
Ball Corp	BLL	BLL US	United States	22,090	B-1-7	Sustainable Packaging	Medium	Yes	Beverage packaging company with focus on aluminium, would benefit as alternative material from stricter Plastic regulation
Mondi Plc	MONDF	MNDI LN	South Africa	8,323	B-2-7	Sustainable Packaging	Medium	No	Packaging company with focus on paper, would benefit as alternative material from stricter Plastic regulation



Table 2: Companies with exposure to themes and sub-themes that could be beneficiaries in “The World After Covid”

Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Crown Holdings	CCK	CCK US	United States	7,962	B-1-9	Sustainable Packaging	Medium	Yes	Crown Holdings is a leading global supplier of metal packaging products (primarily beverage and food cans) to consumer products companies. CCK is geographically organized as follows: Americas (41% of total sales), Europe (40%), and Asia/Pacific and Non-Reportable segment (19%).
DS Smith	DITHF	SMDS LN	United Kingdom	5,051	B-2-7	Sustainable Packaging	Medium	No	Packaging company with focus on right sizing, would benefit as alternative material from stricter Plastic regulation
Environmental Services									
Ecolab Inc	ECL	ECL US	United States	57,133	A-1-7	Environmental Services	Low	No	Global leader in water, cleaning, and energy products and services, provides chemicals and onsite service for customers in the food, health care, energy, hospitality and industrial markets.
American Water	AWK	AWK US	United States	23,849	A-3-7	Environmental Services	High	No	#1 listed NAM water utilities co provides regulated water service in 16 states as well as water services to military bases, homeowner services contract operations and shale E&P.
Essential Utilities	WTRG	WTRG US	United States	9,683	A-2-7	Environmental Services	High	No	Aqua America is a regulated water utility providing water or wastewater services to 3M customers the US.
Conch Venture	CCVTF	586 HK	China	8,115	B-1-8	Environmental Services	Medium	Yes	Leading integrated provider of energy preservation & environmental protection solutions, residual heat power generation solutions and offers innovative hazard/ solid/ household waste incineration.
United Utilities	UUGWF	UU/ LN	United Kingdom	7,545	A-3-7	Environmental Services	High	No	UK's largest listed water company, providing regulated water and wastewater services in north-west England to c7 million customers.
Severn Trent	SVTRF	SVT LN	United Kingdom	6,715	A-3-7	Environmental Services	High	No	UK wastewater co offering sewage treatment, disposal and recycling services. The group is also growing its renewable power capability, e.g. Anaerobic Digestion.
Stericycle	SRCL	SRCL US	United States	5,598	B-3-9	Environmental Services	High	No	Stericycle is a leading provider of specialty waste and compliance solutions in medical waste, secure document destruction, hazardous waste, returns & recall, and patient communications.
BJ Water	BJWTF	371 HK	China	3,512	B-1-7	Environmental Services	High	Yes	China leading wastewater treatment, water supply, and reclaimed water player with current market share of >5%. National player with projects extending to 20 provinces across China and overseas projects in Malaysia and Portugal.
China Everbright	CHFFF	257 HK	China	2,314	B-1-7	Environmental Services	High	Yes	China state-owned company and focuses on environmental protection business in China such as waste to energy, wastewater treatment and other alternative energy (biomass, methane to energy and solar power) and infrastructure project development.
Future Food									
Danone	GPDNF	BN FP	France	46,796	A-1-7	Future Food	High	Yes	Leading global food company focused on nutrition. The group is the global leader in fresh dairy and plant based products, the global number two in infant nutrition and bottled water and a strong regional player in medical nutrition (Europe). Danone's brand portfolio includes internationally well-known names such as Danone, Dannon (US), Evian, Volvic as well as strong regional brands.
Givaudan	GVDBF	GIVN SW	Switzerland	29,203	A-1-7	Future Food	High	Yes	Manufactures Fragrance products and intermediates for consumer goods and fine fragrances and also Flavours for beverages, savoury, dairy and confectionary.
DSM	KDSKF	DSM NA	Netherlands	20,065	A-1-7	Future Food	High	Yes	DSM is present in Nutrition (70%) & Materials (30%). In Nutrition, producer of vitamins, carotenoids, lipids, enzymes, and other ingredients to the animal feed, food, and personal care industries. In Materials, DSM is a global player in specialty plastics, and resin solutions for diverse industries.
Kerry Group	XAOLF	KYG ID	Ireland	19,555	A-1-7	Future Food	High	Yes	World's largest ingredients and flavours company, providing a broad range of integrated solutions for the food, beverage and pharma industries.
McCormick	MKC	MKC US	United States	18,965	B-3-7	Future Food	High	No	Leader in the global spices, seasonings and flavors industry. The company operates in two business segments: Consumer (61% of total sales) and Flavor Solutions (39%). MKC is one of the most geographically diverse companies within our coverage universe, with 40% of sales outside of the United States across 150 different countries.
Symrise	SYIEF	SY1 GR	Germany	12,882	A-1-7	Future Food	High	Yes	4th largest manufacturer of flavour and fragrance compounds globally (after Givaudan, FF and Firmenich) as well as a manufacturer of active ingredients used in the personal care market.
Chr Hansen	CRTSF	CHR DC	Denmark	11,183	B-2-7	Future Food	High	No	Global leader in the production of cultures, enzymes, probiotics and natural colors. The company operates mainly in the dairy segment but it also has exposure to animal health and plant health.
Novozymes	NVZMF	NZYMB DC	Denmark	10,978	A-3-7	Future Food	High	No	NioAg enzyme, market leader in the production of enzymes for industrial uses such as the production of detergents, biofuels, beer, wine, human and animal food, etc. In addition, Novozymes produces microorganisms to be used in agriculture as replacement (or complement to) fertilisers and agrochemicals. The company demerged from the pharma co. Novo Nordisk in 2000.

Table 2: Companies with exposure to themes and sub-themes that could be beneficiaries in “The World After Covid”

Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
Beyond Meat Inc.	BYND	BYND US	United States	4,829	C-3-9	Future Food	High	No	Beyond Meat is a plant based protein company with \$87.9m in net revenues and \$28.0m operating loss in FY18. Beyond Meat offers plant-based products such as its Beyond Burger or Beyond Sausage to retailers like Whole Foods and restaurant & foodservice outlets like TGI Friday's and Sysco. Additionally, the company is growing internationally with customers like Tesco and A&W.
IMCD	IMDZ	IMCD NA	Netherlands	4,254	B-1-7	Future Food	High	Yes	IMCD is a Dutch-based distributor of 'specialty' chemicals. The figures are dynamic but it has approximately 1,900 suppliers of 37,000 products, which are sold to 43,000 customers. It was listed in 2014 having previously been owned by a management buyout backed by private equity.
Glanbia	GLAPF	GLB ID	Ireland	2,885	B-2-7	Future Food	High	No	World leader in sports nutrition, offering a wide range of protein-based products. Glanbia also operates in Ingredients solutions and Cheese. On top of the wholly owned business Glanbia participates in three Joint Ventures mainly focused on Dairy.
Bellring Brands	BRBR	BRBR US	United States	2,275	B-2-9	Future Food	High	No	Packaged food and beverage company offering consumers convenient and nutritious products. The portfolio consists of ready-to-drink protein shakes with its Premier Protein brand, protein powder with Dymatize and protein bars with PowerBar. Bellring sells products both in US and internationally primarily in club channels, with exposure to FDM, specialty and e-commerce.
WW	WW	WW US	United States	1,368	C-3-9	Future Food	High	No	Leader in the weight management industry. It offers product and services, including meetings and digital weight loss programs, recipes, magazine publications and food products. Vast majority of its revenue come from its subscription weight loss services, notably from its Meetings business.
Energy Efficiency									
Honeywell	HON	HON US	United States	102,614	A-1-7	Energy Efficiency	Medium	Yes	Diversified, global technology and manufacturing company, smart building automation player
Daikin	DKLF	6367 JP	Japan	36,256	B-1-7	Energy Efficiency	Medium	Yes	Global leader in air-conditioning equipment, with the second-highest market share in fluorochemical products. Daikin also has a high level of energy-saving technology.
Saint-Gobain	CODGF	SGO FP	France	14,166	A-1-9	Energy Efficiency	High	Yes	Diversified light-side materials manufacturer and distributor, global market leader in building insulation, smart glass
Kingspan Group PLC	KGSPF	KSP ID	Ireland	9,476	B-2-7	Energy Efficiency	High	No	Kingspan is a global leader in high performance insulation, building fabric and solar integrated building envelopes that deliver efficient, low cost, low carbon building solutions.
Signify	SFFYF	LIGHT NA	Netherlands	2,060	B-1-9	Energy Efficiency	High	Yes	Global leader in lighting products, systems and services, forefront of the industry in terms of connected LED lighting and leveraging IoT to transform homes, buildings and urban spaces.
Global to Local									
Nike	NKE	NKE US	United States	150,751	B-1-7	Global to Local	Medium	Yes	Nike is the premier global athletic footwear and apparel company with roughly 40% global athletic footwear market share. It also sells brand Jordan, Converse, and Nike golf shoes and athletic apparel. It produces through independent contracts and sourcing abroad.
adidas Group	ADDDF	ADS GR	Germany	47,537	B-2-7	Global to Local	Medium	No	The adidas Group is the second-largest global athletic footwear and apparel vendor. Brand adidas comprises 90% of revenues, followed by Reebok.
FII	XDAZF	601138 CH	China	37,027	B-2-8	Global to Local	Medium	No	FII is a global leading EMS/ODM manufacturer based in China. It provides network, telecom and cloud service equipment to global tier-1 vendors, and also has 30-35% sales exposure to iPhone mechanical parts. FII is dedicated to build a new ecosystem of 'advanced manufacturing + industrial internet' with its IIoT platform and actively seeks IIoT business opportunities.
Murata Mfg	MRAAF	6981 JP	Japan	33,512	C-1-7	Global to Local	Medium	Yes	Based on superlative ceramic process technology, Murata has top share in global ceramic capacitors & filters markets. Murata is now diversifying into ceramic-based wireless module business. Backed by good cost management, Murata always keeps high margin. Murata is also aggressive on dividend increases and share buy-backs.
Luxshare	XNJOF	002475 CH	China	31,788	C-1-7	Global to Local	Medium	Yes	Luxshare is one of the top 10 connector suppliers and also a key lightning cable provider for Apple with 55%+ share. Around 80% of its sales is from consumer segment, followed by 6% from computing and 5%/8% from automotive /communication segment. In addition to Apple, its key customers include Huawei, MSFT, HP, Dell, Lenovo.
MediaTek	MDTKF	2454 TT	Taiwan	20,190	B-1-7	Global to Local	Medium	Yes	MediaTek is a fabless IC design company supplying to wireless communications and digital consumer markets. Its LTE product cycle kicked off from 3Q14 and it expanded its LTE market share to 40% by 4Q15. We expect MTK to expand its share at the mid to high end smartphone SoC market on top of its stable Matured business and growing power/connectivity/IoT business.
AMETEK	AME	AME US	United States	17,953	B-2-7	Global to Local	Medium	No	AMETEK Inc. (AME) is a leading diversified industrial company divided into the Electromechanical Group (EMG) and the Electronic Instruments Group (EIG). EMG produces a wide range of motor products whereas EIG is primarily focused on measurement instrumentation. The company's strategy revolves around completing bolt-on acquisitions to drive growth.



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Largan Precision	LGANF	3008 TT	Taiwan	16,992	B-3-7	Global to Local	Medium	No	Largan, established in 1987, is based in Tai Chung, Taiwan. The company is Taiwan's leading optical lens manufacturer for digital imaging products. These include digital cameras, mobile phone cameras, projectors, and MFPs.
Sunny Optical	SNPTF	2382 HK	China	14,541	C-2-7	Global to Local	Medium	No	Sunny Optical is a China handset camera components supplier, which supplies both lenses and modules. Its diversified customer mix includes almost all Chinese handset brand names. Sunny Optical has five production sites in China and its R&D centers are located in China, Singapore, South Korea, etc. The top five customers include Huawei, Lenovo, OPPO, Gionee, and Vivo.
ASE	XSRIF	3711 TT	Taiwan	10,797	B-1-7	Global to Local	Medium	Yes	Established in 1984 with and headquartered in Taiwan, ASE Technology Holding is the no.1 outsourced assembly and testing (OSAT) player globally, in terms of market share by revenue. ASE has finalized the merger with SPIL in 2018, and had acquired USI in 2010, which became its EMS business segment providing synergies in system-level packaging. 2 shares = 1 ADR.
SMIC	SIUIF	981 HK	China	9,238	C-2-9	Global to Local	Medium	No	Established in 2000, SMIC is the fourth-largest foundry in the world. The company has 8-inch and 12-inch wafer fabrication facilities in volume production in Shanghai, Shenzhen, Beijing, and Tianjin. More recently, it acquired LFoundry, an 8-inch foundry in Italy. SMIC has begun mass production for 28nm application processors and baseband chips in mid-2016. 50 shrs = 1 ADR.
Inspur	XIPLF	000977 CH	China	8,895	C-1-7	Global to Local	Medium	Yes	Inspur is the largest Chinese server vendor and it has a strong foothold in the Internet Service Provider (ISP) sector. Its main customers include tier-1 China ISPs like Tencent, Tier-2 players like JD, as well as large enterprise and government. Around 90% of Inspur's revenue comes from the server sector, and the rest derives from storage and other IT hardware.
Allegion	ALLE	ALLE US	United States	8,841	B-2-7	Global to Local	Medium	No	Allegion (ALLE) is a security products and solutions provider for end-users in commercial, institutional, and residential facilities. ALLE became a standalone entity in December 2013 following the spin-off from Ingersoll-Rand (IR). The company serves the education, healthcare, government, hospitality, commercial office and single and multi-family residential markets.
Lenovo Group	LVNCF	992 HK	China	6,231	C-2-8	Global to Local	Medium	No	Lenovo is the world's largest PC maker with around 18% market share. It is the leading PC brand in China market with 30+% market share.
JCET Group Co Ltd	XJIEF	600584 CH	China	4,657	C-1-9	Global to Local	Medium	Yes	Jiangsu Changjiang Electronics Tech (JCET) is China's largest provider of independent semiconductor manufacturing services in assembly and test. JCET is now one of the four largest OSAT suppliers worldwide. JCET is expanding its high-end packaging and SIP capacities. JCET's major production sites are in China, Korea and Singapore.
Novatek	NVKMF	3034 TT	Taiwan	4,392	B-1-7	Global to Local	Medium	Yes	Novatek is a worldwide leading display driver IC design company. Its product offering encompasses flat panel display driver ICs (DDI), timing controller ICs (T-CON), video processing SoC, TV SoC, DSC, STB controller IC, TDDI and OLED drivers. The company has over 30% market share in large-size driver IC market and 10+% market share in small-to-medium display driver IC market.
Under Armour CI C	UA	UA US	United States	3,995	C-3-9	Global to Local	Medium	No	Under Armour develops, markets, and distributes branded performance product for men, women, and youth. UA designs and sells a broad offering of authentic apparel, footwear, and accessories in the US, Europe, and Asia.
Proya Cosmetics	XPXCF	603605 CH	China	3,882	B-1-7	Global to Local	Medium	Yes	Proya is a leading Chinese cosmetics company targeting a younger people (under 30s) and based in Hangzhou, China. The company only sells its products in Mainland China and derives the majority of its revenue from self-developed skin care products. It is expanding into the agency sale of foreign color cosmetics.
Win Semiconductors	XWIF	3105 TT	Taiwan	3,675	C-1-7	Global to Local	Medium	Yes	Established in 1999, Win Semiconductors has a substantial lead in GaAs foundry space, with over 70% market share globally. The firm mainly serves IC design houses and IDMs, in the need of wafer manufacturing. Win Semi's customers include Broadcom (Avago), Lumentum, Murata, Qorvo, MACOM, Inphi, Maxlinear, to name a few.
Bosideng	BSDGF	3998 HK	Hong Kong	3,388	B-1-7	Global to Local	Medium	Yes	Bosideng is China's largest seller of down jackets with over 75% of its sales coming from this segment. It also sells ladieswear (10% of revenue) under the Jessie, Buou Buou, Tanjin and Koreano brands. In addition, it provides OEM/ODM (non-branded apparel sales to other brands) services. Nearly two-thirds of its sales comes from its flagship brand 'Bosideng'.
Silergy	SLRGF	6415 TT	China	2,122	C-1-7	Global to Local	Medium	Yes	Silergy Corp is a fabless design house mainly engaged in power management IC (PMIC). The company conducts business mainly in China with 50%+ revenue exposures, and has footprints in the US, Taiwan, South Korea, Japan and India. By end-application, its business can be split into four categories, including consumer, industrial, computing and communication.
Aspeed	XLKMF	5274 TT	Taiwan	1,138	B-1-7	Global to Local	Medium	Yes	Aspeed is a fabless company, focusing on the design of baseboard management controller (BMC), which could be used in remote servers. Aspeed has 70+% market share in BMC, while it also offers other products including PC/AV extension IC and digital image processors.

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Company	BofA Ticker	BBG Ticker	Location	Mcap US\$m	Q-R-Q	Sub-sector	Exposure	Primer Picks	Stock Profiles
BIG GOVERNMENT									
Testing Inspection Certification (TIC)									
Keysight Tech	KEYS	KEYS US	United States	17,508	B-2-7	TIC	Medium	No	Keysight is a global leader in test and measurement equipment, software, and services. Key end markets include mobile infrastructure and networks (roughly 51% of revenue) and aerospace and defense (23%). The company generated \$3.9bn in revenue in FY18 (ended October).
SGS SA	SGSOF	SGSN SW	Switzerland	17,470	A-3-7	TIC	High	No	SGS is global leader in testing, inspection, certification and verification services. This ranges from basic inspection to highly complex non-destructive testing and may be driven by internal or external (e.g. regulatory) factors. Operating across 9 business units, SGS touches a multitude of industries at numerous points in the value chain.
Intertek Group	KTSF	ITRK LN	United Kingdom	9,273	A-2-7	TIC	High	No	Intertek is a global leader in the provision of testing, inspection and certification of consumer goods and upstream resources. Customers include retailers, distributors, manufacturers, traders, industrial bodies, oil and chemical companies and governments.
Bureau Veritas	BVRDF	BVI FP	France	9,180	A-1-7	TIC	High	Yes	Bureau Veritas is the world's second largest testing and inspection agency. It has strong market positions in the provision of independent testing, inspection and certification services, in particular marine in, building & infrastructure, and industry (O&G and power).
Wendel SA	WNDLF	MF FP	France	4,146	A-1-7	TIC	Medium	Yes	Wendel is France's largest publicly listed investment company, with a gross asset value (GAV) of €11.8bn.
ALS Limited	CPBLF	ALQ AU	Australia	1,702	B-1-7	TIC	High	Yes	ALS is a global provider of testing, inspection and certification (TIC) services for a range of end markets including environmental, food, pharmaceutical, mining, oil & gas, coal and industrial sectors. The company employs around 13,000 staff across 65 countries. ALS currently operates four main testing service divisions: Life Sciences, Minerals, Energy and Industrial.
Homeland									
Lockheed Martin	LMT	LMT US	United States	105,534	B-1-7	Homeland	Low	No	Lockheed Martin principally researches, designs, develops, manufactures, integrates, operates and sustains advanced technology systems, products and services. The Company operates in four principal business segments: Aeronautics, Missiles and Fire Control, Rotary and Mission Systems, and Space Systems. LMT is the prime contractor for the F-35 Joint Strike Fighter.
Raytheon Tech	RTX	RTX US	United States	87,580	B-1-8	Homeland	Medium	Yes	Raytheon (RTN) is an industry leader in defense, government electronics, space, information technology, and technical services. The company operates in five principal business segments: Integrated Defense Systems, Intelligence, Information and Services, Missile Systems, Space and Airborne Systems, and Forcepoint.
Northrop Grumman	NOC	NOC US	United States	55,880	B-1-7	Homeland	Low	No	Northrop Grumman Corp (NOC) is a global defense company headquartered in Falls Church, VA. It provides products, systems, and solutions in information and services, aerospace and electronics. The company is aligned into four primary businesses, namely, Aerospace Systems, Innovation Systems, Mission Systems, and Technology Services.
General Dynamics	GD	GD US	United States	39,568	B-1-7	Homeland	Low	No	General Dynamics Corporation (GD) is engaged in business aviation, land and expeditionary combat vehicles and systems, armaments, munitions, shipbuilding and marine systems, and information systems and technologies. Major products include Virginia-class nuclear-powered submarine and Ohio class replacement, Arleigh Burke-class Aegis, etc.
Safran SA	SAFRF	SAF FP	France	39,514	A-1-9	Homeland	Low	No	Safran was the result of the merger between Sagem, a communication and defence & security company, and Snecma, an aircraft engine and other equipment (wheels and brakes, landing gear, nacelles) manufacturer. Safran is now mostly an Aerospace business for <90% of its sales and >10% of sales from defense.
BAE SYSTEMS	BAESF	BA/ LN	United Kingdom	21,196	A-1-8	Homeland	Medium	Yes	BAE is the world's third largest defence contractor by 2014 sales. US represents c.36% of group sales (33% in Defence and Security, 3% in commercial). 51% of its sales are in the Air domain (Typhoon, F35, Tornado), 7% in Cyber, 17% in Land (Bradley) and 25% in Naval (Astute, UK Aircraft Carrier, Ship repair).
Thales	THLEF	HO FP	France	15,933	A-1-8	Homeland	Medium	Yes	Thales is a world leader in mission-critical information systems for defence and security, aerospace and transportation.
Leidos	LDOS	LDOS US	United States	10,734	B-1-7	Homeland	Medium	Yes	Leidos is an information technology (IT), engineering and science solutions provider. Leidos focuses on designing and building software-based systems, integrating hardware and software solutions, running and maintaining IT infrastructure and logistics/procurement services. LDOS services defense, intelligence, civil and health end-markets.
Booz Allen Hamilton	BAH	BAH US	United States	9,066	B-1-7	Homeland	Medium	Yes	Booz Allen is a tier-one provider of consulting and technology services to the US government, a \$100bn+ market. BAH began serving public sector clients in 1940, and spun-off its commercial unit in 2008. The company is based in McLean, VA.



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Smiths Group	SMGKF	SMIN LN	United Kingdom	5,336	A-1-8	Homeland	Low	No	JK listed conglomerate with 5 divisions: 1) Smiths Medical (29% of sales) medication delivery, vital care and safety devices, 2) John Crane (27%) mechanical seals and equipment, 3) Smiths Detection (21%) detection equipment, 4) Interconnect (13%) components to protect/connect electronics, and 5) Flex-Tek (10%) flexible and rigid housing.
CACI	CACI	CACI US	United States	4,534	B-1-9	Homeland	Medium	Yes	CACI is an information domain expertise, solutions and services provider. CACI supports national security missions and government IT modernization for intelligence, defense, and federal civilian customers. CACI has recently increased its exposure to the products market with the acquisition of LGS Innovations and Mastodon Design.
Leonardo	FINMF	LDO IM	Italy	4,486	B-1-9	Homeland	Low	No	Defence: Selex/DRS is defence electronics, Defence Systems includes Oto Melara, 25% of MBDA. Aeronautics: military aircraft (Eurofighter, C27J), commercial activities (50% ATR, aerostructures for B787/B777/A380/A321). Helicopters: AgustaWestland. Space: Telespazio and TAS JVs with Alcatel Thales. Other: Ansaldo Breda rolling stock, 40% of Ansaldo STS and AnsaldoEnergia.
Parsons	PSN	PSN US	United States	4,262	B-2-9	Homeland	Medium	No	Parsons Corporation (ticker: PSN) provides design, engineering, software, and prototype hardware solutions for defense, intelligence, and critical infrastructure projects. The company is organized in two reporting segments: Federal Solutions and Critical Infrastructure. The company employs approx. 16,000 people globally. 60% of 2018 revenue was derived from the US government.
QinetiQ	ONTQF	QQ/ LN	United Kingdom	2,434	B-2-9	Homeland	Low	No	QinetiQ is a mid-tier defence and security company exposed to niche defence markets. QinetiQ has two divisions, EMEA Services which is c.90% exposed to the UK MoD and UK Defence, and Global Products, which has a range of defence products, as well as the commercialisation of defence IP ventures such as Optasense.
Ultra Electronics	UEHPF	ULE LN	United Kingdom	1,721	B-3-8	Homeland	Medium	No	Ultra is a UK-based defence company with significant exposure to cyber security (c.22%) and transport & energy (c.23%). Ultra operates with a lean management structure overseeing 29 operationally autonomous businesses into c.180 different niche end-markets. There are three divisions: Aircraft & Vehicle Systems, Information & Power Systems and Tactical & Sonar Systems.
ManTech	MANT	MANT US	United States	1,709	B-1-7	Homeland	Medium	Yes	ManTech International Corporation provides national and homeland security mission-focused technology solutions and services to the US Government (including DoD, intelligence community and federal civilian agencies). MANT portfolio of solutions includes full-spectrum cyber (offensive and defensive), data collection and analytics, enterprise IT, etc.
Internet of Things									
NXP Semiconductors	NXPI	NXPI US	United States	27,898	B-1-7	Internet of Things	Medium	Yes	Leading vendor of high-performance mixed-signal semiconductors, Freescale acquisition - mobile, consumer & computing now 21% of sales
TE Connectivity Ltd.	TEL	TEL US	United States	25,861	B-1-7	Internet of Things	Medium	Yes	#1 global maker of passive electronic components, autos ~40% of sales, secular exposure to content growth inside the safe, green & connected car
STMicroelectronics	STMEF	STM FP	France	21,359	B-1-7	Internet of Things	High	Yes	Time of Flight (ToF) sensors, Leading semi manufacturer with exposures to handsets, consumer electronics, Analog, MEMS & Sensors (“AMS”) are 14% of sales
Microchip	MCHP	MCHP US	United States	19,048	B-1-7	Internet of Things	Medium	Yes	Specialized semiconductor supplier, whose products include 8/16/32bit MIPS based microcontroller (MCU), analog, flash memory, and memory licensing. MCHP's products are primarily used in industrial, auto and consumer applications.
Infineon	IFNNF	IFX GR	Germany	18,140	B-1-8	Internet of Things	High	Yes	Project Soli with Google ATAP on gesture recognition, ToF sensors, Integrated semiconductor co where Power Management & Multimarket segment is 31% of revenues
Rohm	ROHCF	6963 JP	Japan	6,423	B-2-8	Internet of Things	Medium	No	Develops & sell carbon fixed resistors, TV, mobile phones and camera are 10% of revenues
ON Semiconductor	ON	ON US	United States	5,553	C-3-9	Internet of Things	Medium	No	Vendor of analog power management, analog signal conditioning, standard logic ICs and discrete chips into the automotive, communications, computing, consumer, industrial, and medical applications. The company is in the midst of a transformation from a seller of commodity discrete chips into higher value added analog ICs both through organic growth and acquisitions.
Sensata	ST	ST US	United States	5,816	B-1-9	Internet of Things	Medium	Yes	Manufactures auto, commercial and industrial sensors, including pressure sensors, pressure switches, position and force sensors, partnership with Quanergy on LiDAR
Dialog Semi	DLGNF	DLG GR	Germany	1,927	B-3-9	Internet of Things	Medium	No	Semiconductor company specialised in mixed signal chips that are primarily used in mobile devices

Source: BofA Global Research

Companies mentioned

Table 3: Companies mentioned in this report

	BofA	BBG				BofA	BBG				BofA	BBG		
Company	Ticker	Ticker	Q-R-Q	Price (USD)	Company	Ticker	Ticker	Q-R-Q	Price (USD)	Company	Ticker	Ticker	Q-R-Q	Price (USD)
3M	MMM	MMM US	B-2-7	156.26	Equinix	EQIX	EQIX US	B-1-7	679.32	Nvidia	NVDA	NVDA US	C-1-7	298.46
ABB India	ABVFF	ABB IN	B-2-7	11.90	Ericsson	ERIXF	ERICB SS	B-1-7	8.62	NXP Semiconductors	NXPI	NXPI US	B-1-7	106.77
ABB Ltd.	ABLZF	ABBN SW	A-1-7	18.82	Essential Utilities	WTRG	WTRG US	A-2-7	43.29	Ocado	OCDFG	OCDO LN	B-1-9	1995.44
Acadia Ph	ACAD	ACAD US	C-1-9	50.76	Everbridge	EVBG	EVBG US	B-1-9	112.53	Oracle	ORCL	ORCL US	B-2-7	53.88
Activision	ATVI	ATVI US	B-1-7	64.79	Exact Sciences	EXAS	EXAS US	C-1-9	80.99	Orsted	DOGEF	ORSTED DC	A-1-7	100.18
Adaptive Biotech	ADPT	ADPT US	C-1-9	32.52	Experian	EXPGF	EXPN LN	A-2-7	2954.91	Palo Alto Networks	PANW	PANW US	B-2-9	197.70
adidas Group	ADDDF	ADS GR	B-2-9	229.55	Facebook	FB	FB US	B-1-9	194.19	Panasonic	PCRF	6752 JP	B-2-7	7.76
Advanced Micro	AMD	AMD US	C-1-9	53.66	Fidelity Nat'l Info	FIS	FIS US	B-1-7	134.29	Parker Hannifin	PH	PH US	B-1-7	156.86
Adyen	ADYF	ADYEN NA	B-1-9	978.12	FireEye	FEYE	FEYE US	B-2-9	11.04	PayPal Holdings Inc	PYPL	PYPL US	B-1-9	123.58
AfreecaTV	WNTHF	067160 KS	C-1-7	49.49	Fiserv	FISV	FISV US	A-1-9	104.73	PepsiCo	PEP	PEP US	A-1-7	133.36
Ahold Delhaize	ADRNY	ADRNY US	B-1-7	24.91	Fortinet	FTNT	FTNT US	B-1-9	108.52	Pfizer	PFE	PFE US	A-2-7	38.12
Alibaba	BABA	BABA US	B-1-9	206.70	GDS Holdings	GDS	GDS US	C-1-7	58.32	Philips	RYLPF	PHIA NA	A-1-7	43.10
Allscripts	MDRX	MDRX US	B-1-9	6.70	General Dynamics	GD	GD US	B-1-7	136.65	Pluralsight Inc	PS	PS US	C-2-9	16.99
Alphabet C	GOOG	GOOG US	B-1-9	1341.48	Genmab	GNMSF	GMAB DC	B-1-9	238.30	PPD	PPD	PPD US	C-1-9	23.95
ALS Limited	CPBLF	ALQ AU	B-1-7	4.45	Gilead Sciences Inc.	GILD	GILD US	B-2-7	83.14	PRA Health Scien	PRAH	PRAH US	B-1-9	98.70
Alteryx, Inc	AYX	AYX US	C-1-9	113.35	GlaxoSmithKline	GLAXF	GSK LN	A-2-7	2065.70	Premier, Inc.	PINC	PINC US	B-1-9	33.37
Amazon.com	AMZN	AMZN US	B-1-9	2372.71	Global Payments	GPN	GPN US	B-1-8	169.82	Prologis, Inc.	PLD	PLD US	B-1-7	90.16
Amdocs	DOX	DOX US	A-1-7	64.90	Goldwind	XJNGF	2208 HK	C-1-8	0.98	Proofpoint	PFPT	PFPT US	B-1-9	122.91
American Tower	AMT	AMT US	B-1-7	236.81	Grifols - A	GILF	GRF SM	B-1-7	33.71	Prosus	XXPNF	PRX NA	B-1-9	75.08
American Water	AWK	AWK US	A-3-7	125.72	Guardant Health	GH	GH US	C-1-9	79.93	Proya Cosmetics	XPXCF	603605 CH	B-1-7	18.17
AMETEK	AME	AME US	B-2-7	84.50	Han's Laser	XHQTF	002008 CH	B-1-7	4.28	PSN	PSN	PSN US	B-2-9	39.29
Amgen Inc.	AMGN	AMGN US	B-1-7	235.69	Hapvida	XDUFF	HAPV3 BZ	B-2-7	10.05	Pton	PTON	PTON US	C-1-9	31.89
Anthem	ANTM	ANTM US	B-2-7	280.61	Hengrui Medicine	XMOKF	600276 CH	B-1-7	13.15	Pure Storage	PSTG	PSTG US	C-1-9	14.99
Apple Inc.	AAPL	AAPL US	B-1-7	287.73	Hexagon AB	HXGBF	HEXAB SS	B-1-7	49.35	QinetiQ	QNTQF	QQ/ LN	B-2-9	378.07
Applied Materials	AMAT	AMAT US	B-1-7	54.34	Hologic	HOLX	HOLX US	B-1-9	48.95	Qorvo Inc.	QRVO	QRVO US	B-1-9	99.39
ASE	XSRIF	3711 TT	B-1-7	2.24	Honeywell	HON	HON US	A-1-7	146.16	Qualcomm	QCOM	QCOM US	C-1-7	78.97
ASML NA	ASMLF	ASML NA	B-1-7	293.75	Humana Inc	HUM	HUM US	B-1-7	377.38	Qualicorp	QUAIF	QUAL3 BZ	C-1-8	4.93
Aspeed	XLKMF	5274 TT	B-1-7	39.80	Huya	HUYA	HUYA US	C-1-9	15.99	Quest Diagnostics	DGX	DGX US	B-2-8	113.55
AstraZeneca	AZNCF	AZN LN	B-1-7	10349.65	Iberdrola	IBDSF	IBE SM	A-2-8	9.92	Ramsay Health Care	RMSYF	RHC AU	A-1-7	40.92
Atlassian Corp Plc	TEAM	TEAM US	B-1-9	152.73	IBM	IBM	IBM US	B-1-7	128.69	Raytheon Tech	RTX	RTX US	B-1-8	67.90
Avangrid	AGR	AGR US	A-2-7	44.58	IMCD	IMDZF	IMCD NA	B-1-7	87.61	Regeneron Pharmaceut	REGN	REGN US	B-2-9	516.15
Avantor, Inc.	AVTR	AVTR US	C-1-9	14.70	IMI	IMIAF	IMI LN	B-2-8	1029.12	ResMed	RSMDF	RMD AU	B-1-7	15.29
Avast	AVASF	AVST LN	B-1-7	569.84	Infineon	IFNNF	IFX GR	B-1-8	18.85	Revolve	RVLV	RVLV US	C-2-9	11.04
BAE SYSTEMS	BAESF	BA/ LN	A-1-8	632.27	Inovance	XMYRF	300124 CH	B-2-7	4.63	RingCentral, Inc	RNG	RNG US	B-1-9	225.28
Baidu.com-ADR	BIDU	BIDU US	B-1-9	99.67	Inphi	IPHI	IPHI US	C-1-9	101.00	Roche Holdings	RHHBF	ROG SW	A-1-7	344.56
Ball Corp	BLL	BLL US	B-1-7	66.81	Inspur	XIPLF	000977 CH	C-1-7	5.87	Roku, Inc.	ROKU	ROKU US	C-1-9	119.52
Becton Dickinson	BDX	BDX US	B-1-7	257.85	Integra LifeScie	IART	IART US	B-3-9	51.17	Safran SA	SAFRF	SAF FP	A-1-9	91.41
BeiGene Ltd	XBETF	6160 HK	C-1-9	12.50	Intel	INTC	INTC US	B-1-7	61.80	Sainsbury	JSNSF	SBRY LN	B-2-8	246.37
Beijing Sinnet	XAYCF	300383 CH	B-1-7	3.85	Intertek Group	IKTSF	ITRK LN	A-2-7	5907.34	Saint-Gobain	CODGF	SGO FP	A-1-9	26.28
Bellring Brands	BRBR	BRBR US	B-2-9	18.00	Intuitive Surgical	ISRG	ISRG US	B-1-9	519.72	Salesforce.com	CRM	CRM US	B-1-9	160.43
Bilibili	BILI	BILI US	C-1-9	27.76	IPG Photonics	IPGP	IPGP US	C-1-9	133.00	Sanofi	SNYNF	SAN FP	A-1-7	96.80
BioMarin	BMRN	BMRN US	B-1-9	94.71	IQIYI	IQ	IQ US	C-2-9	17.22	Sarepta	SRPT	SRPT US	C-1-9	117.09
BioNTech	BNTX	BNTX US	C-2-9	49.25	IQVIA Holdings	IQV	IQV US	B-1-9	143.10	Schrodinger	SDGR	SDGR US	C-2-9	49.69
BJ Water	BJWTF	371 HK	B-1-7	0.39	JOCT Group Co Ltd	XJIEF	600584 CH	C-1-9	3.56	Sea Limited	SE	SE US	C-1-9	55.52
BJ's Wholesale	BJ	BJ US	B-1-9	26.02	JD.com	JD	JD US	C-1-9	44.34	Sensata	ST	ST US	B-1-9	38.29
Blackbaud, Inc.	BLKB	BLKB US	B-3-7	56.41	Jeronimo	JRONF	JMT PL	B-1-7	16.73	ServiceNow, Inc.	NOW	NOW US	B-1-9	321.99
Blue Prism	BPRMF	PRSM LN	C-1-9	1614.26	Johnson & Johnson	JNJ	JNJ US	A-1-7	150.24	Shenzhen Goodix	XOPLF	603160 CH	C-1-7	33.39
boohoo Group PLC	BHHOF	BOO LN	B-1-9	401.70	Kellogg	K	K US	A-1-7	64.90	Siemens	SMAWF	SIE GR	A-1-7	95.38
Booz Allen Hamilton	BAH	BAH US	B-1-7	74.88	Kerry Group	XAOLF	KYG ID	A-1-7	113.64	Siemens Gamesa	GCTAF	SGRE SM	B-2-8	14.73
Bosideng	BSDGF	3998 HK	B-1-7	0.27	Keyence	KYCCF	6861 JP	B-1-7	363.71	Signify	SFFYF	LIGHT NA	B-1-9	20.20
Bristol-Myers Squibb	BMJ	BMJ US	B-1-7	61.63	Keysight Tech	KEYS	KEYS US	B-2-7	98.91	Skyworks	SWKS	SWKS US	B-1-7	106.22
Broadcom	AVGO	AVGO US	B-1-7	276.02	Kingspan Group PLC	KGSPF	KSP ID	B-2-7	50.47	SMC	SMECF	6273 JP	B-1-7	459.68
Bruker Corp.	BRKR	BRKR US	B-1-9	39.81	KION	KNNGF	KGX GR	B-1-8	50.79	SMIC	SIUIF	981 HK	C-2-9	1.91
Bureau Veritas	BVRDF	BVI FP	A-1-7	20.56	KLA-Tencor	KLAC	KLAC US	B-1-7	175.89	Smiths Group	SMGKF	SMIN LN	A-1-8	1542.75
CACI	CACI	CACI US	B-1-9	255.20	Kyowa Kirin	KYKOF	4151 JP	B-1-7	23.62	Sony	SNEJF	6758 JP	B-1-7	65.03
Cadence	CDNS	CDNS US	B-1-9	82.00	LabCorp	LH	LH US	B-2-9	173.48	Splunk	SPLK	SPLK US	C-1-9	140.84
Cardinal Health Inc	CAH	CAH US	B-1-7	51.36	Lam Research	LRCX	LRCX US	B-1-7	279.99	Spotify	SPOT	SPOT US	B-1-9	155.78
Carrefour	CRERF	CA FP	A-1-7	14.65	Lasertec	LSRCF	6920 JP	C-1-7	67.64	Stericycle	SRCL	SRCL US	B-3-9	51.25
CDW	CDW	CDW US	B-1-7	111.29	LDOS	LDOS	LDOS US	B-1-7	102.96	STMicroelectronics	STMEF	STM FP	B-1-7	25.73
Cellnex	CLNXF	CLNX SM	B-1-7	51.88	Lenovo Group	LNVGF	992 HK	C-2-8	0.54	Stryker Corp	SYK	SYK US	A-1-7	192.68
Centene Corporation	CNC	CNC US	B-1-9	66.17	Leonardo	FINMF	LDO IM	B-1-9	6.83	Sunny Optical	SNPTF	2382 HK	C-2-7	14.21
Cerner Corporation	CERN	CERN US	B-1-7	71.01	LGC	LGCLF	051910 KS	B-1-7	309.00	Symrise	SYIEF	SY1 GR	A-1-7	100.07
Change Healthcare	CHNG	CHNG US	B-1-9	12.00	Lockheed Martin	LMT	LMT US	B-1-7	387.91	Take-Two	TTWO	TTWO US	B-1-9	121.18



Table 3: Companies mentioned in this report

Company	BofA Ticker	BBG Ticker	Q-R-Q	Price (USD)	Company	BofA Ticker	BBG Ticker	Q-R-Q	Price (USD)	Company	BofA Ticker	BBG Ticker	Q-R-Q	Price (USD)
Charles River	CRL	CRL US	B-2-9	145.96	Lowe's	LOW	LOW US	B-1-7	106.16	TE Connectivity Ltd.	TEL	TEL US	B-1-7	78.38
China Everbright	CHFF	257 HK	B-1-7	0.58	Luxshare	XNJQF	002475 CH	C-1-7	6.69	TeamViewer	TMVWF	TMV GY	B-1-9	42.98
China Longyuan	CLPX	916 HK	B-1-7	0.50	ManTech	MANT	MANT US	B-1-7	86.34	Teladoc	TDOD	TDOD US	C-2-9	175.10
China Tower	CHWR	788 HK	C-1-7	0.22	Marvell	MRVL	MRVL US	B-1-7	27.75	Telesites	TSSLF	SITESB1 MM	B-1-7	0.69
Chr Hansen	CRTS	CHR DC	B-2-7	85.40	Medallia	MDLA	MDLA US	C-1-9	22.10	Tencent Holdings	TCTZF	700 HK	B-1-7	53.80
Cisco Systems	CSCO	CSCO US	B-2-7	43.34	MediaTek	MTKT	2454 TT	B-1-7	13.88	Tencent Music	TME	TME US	C-1-9	11.25
Citrix	CTXS	CTXS US	B-2-7	139.98	Medtronic	MDT	MDT US	B-1-7	99.14	Teradata	TDC	TDC US	B-2-9	25.39
Coca Cola	KO	KO US	A-1-7	47.12	Meituan Dianping	MPNG	3690 HK	C-1-9	13.39	Teradyne	TER	TER US	B-2-7	67.32
Coles	CLEF	COL AU	B-1-7	10.14	Mercadolibre	MELI	MELI US	C-1-9	602.42	Texas Instr.	TXN	TXN US	B-1-7	119.40
Conch Venture	CCVT	586 HK	B-1-8	4.80	Merck KGaA	MKGAF	MRK GR	A-2-7	116.84	Thales	THLEF	HO FP	A-1-8	75.04
CrowdStrike	CRWD	CRWD US	C-1-9	69.28	Microchip	MCHP	MCHP US	B-1-7	92.27	The Kroger Co.	KR	KR US	B-1-7	31.52
Crown Castle	CCI	CCI US	A-1-7	155.44	Microsoft Corp	MSFT	MSFT US	B-1-7	177.43	Thermo Fisher	TMO	TMO US	B-1-7	335.62
Crown Holdings	CCK	CCK US	B-1-9	65.13	Mitsubishi Elec	MIELF	6503 JP	B-1-7	12.58	TSMC	TSMWF	2330 TT	B-1-7	10.18
CyberArk Software	CYBR	CYBR US	C-1-9	98.96	Moderna	MRNA	MRNA US	C-2-9	46.37	Twilio Inc	TWLO	TWLO US	C-1-9	111.30
CYRUSONE INC	CONE	CONE US	B-1-7	71.64	Molina	MOH	MOH US	C-1-9	164.76	Twitter	TWTR	TWTR US	C-1-9	29.96
Daiichi Sankyo	DSKY	4568 JP	B-1-7	69.25	Momo	MOMO	MOMO US	C-1-8	23.95	Ubisoft	UBSFF	UBI FP	B-1-9	73.72
Daikin	DKIL	6367 JP	B-1-7	131.39	Mondi Plc	MONDF	MNDI LN	B-2-7	1753.55	Under Armour Cl C	UA	UA US	C-3-9	9.79
Danone	GPDF	BN FP	A-1-7	68.66	Morrison Wm	MRWSF	MRW LN	A-3-7	227.59	United Utilities	UUGWF	UU/ LN	A-3-7	1122.02
DaVita Inc	DVA	DVA US	B-1-9	81.59	Murata Mfg	MRAAF	6981 JP	C-1-7	56.47	UnitedHealth Grp	UNH	UNH US	B-1-7	287.65
Dell Inc.	DELL	DELL US	C-1-9	43.39	Nabtesco	NCTKF	6268 JP	B-1-7	29.18	Vertex Pharmaceutica	VRTX	VRTX US	B-1-9	251.05
Dexcom	DXCM	DXCM US	C-1-9	345.47	Naspers	NAPRF	NPN SJ	B-1-7	158.55	Vestas	VWSYF	VWS DC	B-1-8	85.31
Dialog Semi	DLGN	DLG GR	B-3-9	31.25	NCSOFT	NCSCF	036570 KS	B-1-7	527.72	Vivendi	VIVEF	VIV FP	A-1-7	21.39
Digital Realty Trust	DLR	DLR US	B-1-7	148.61	Nestle	NSRGF	NESN SW	A-1-7	104.67	VMware Inc	VMW	VMW US	B-1-9	134.97
Divis Lab	XXQPF	DIVI IN	B-1-7	30.83	NetApp	NTAP	NTAP US	B-2-7	44.88	Walmart	WMT	WMT US	B-1-7	123.60
Domino's Pizza	DPZ	DPZ US	B-1-7	362.01	Netflix	NFLX	NFLX US	B-1-9	411.89	Walt Disney Co.	DIS	DIS US	B-1-7	112.25
Douyu	DOYU	DOYU US	C-1-7	7.48	Neurocrine	NBIX	NBIX US	B-1-9	100.91	Wendel SA	WNDLF	MF FP	A-1-7	84.66
Dropbox	DBX	DBX US	C-1-9	20.98	New Oriental	EDU	EDU US	B-1-9	127.17	Win Semiconductors	XWIF	3105 TT	C-1-7	9.00
DS Smith	DITH	SMDS LN	B-2-7	387.89	NextEra Energy	NEE	NEE US	A-1-7	235.13	Wiiwynn	XWIOF	6669 TT	C-1-7	25.75
Dynatrace	DT	DT US	C-1-9	30.19	Nike	NKE	NKE US	B-1-7	88.07	Workday	WDAY	WDAY US	B-1-9	154.77
Eaton Corp PLC	ETN	ETN US	B-1-7	85.78	Nokia	NOKBF	NOKIA FH	B-1-9	3.61	Xinyi Solar	XYPJF	968 HK	C-1-7	0.63
eBay Inc	EBAY	EBAY US	B-2-9	39.03	Norilsk Nickel	NILSY	MNOD LI	B-1-7	27.78	YY	YY	YY US	C-1-9	57.47
Ecolab Inc	ECL	ECL US	A-1-7	197.58	Northrop Grumman	NOC	NOC US	B-1-7	331.83	Zalando	ZLDSF	ZAL GR	B-1-9	48.47
Elastic	ESTC	ESTC US	C-1-9	63.61	Novartis	NVSEF	NOVN SW	A-1-7	84.49	Zimmer	ZBH	ZBH US	B-1-7	120.86
Electronic Arts	EA	EA US	B-2-9	112.78	Novatek	NVKMF	3034 TT	B-1-7	6.24	Zoom	ZM	ZM US	C-1-9	146.48
Eli Lilly	LLY	LLY US	B-1-7	155.16	Novo Nordisk	NONOF	NOVOB DC	B-1-7	63.20	Zscaler	ZS	ZS US	C-1-9	66.63
Emerson	EMR	EMR US	B-1-7	59.07										

Source: BofA Global Research

Analyst Certification

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BofA Securities is currently acting as financial advisor to BAE Systems plc in connection with its proposed acquisition of Raytheon Co's Airborne Tactical Radios business, which was announced on January 20, 2020.

BofA Securities is currently acting as financial advisor to BAE Systems plc in connection with its proposed acquisition of Rockwell Aerospace's Military Global Positioning System business, which was announced on January 20, 2020.

Bank of America, N.A. and First Data Corp (owned by Fiserv Inc) own approximately 46.5% and 48.5%, respectively, of Banc of America Merchant Services, LLC, which provides payment solutions to its merchant clients worldwide.



BofA Securities is currently acting as financial advisor to BAE Systems plc in connection with its proposed acquisition of Rockwell Aerospace's Military Global Positioning System business, which was announced on January 20, 2020.

BofA Securities is currently acting as financial advisor to Ecolab Inc in connection with its proposed separation of its Upstream Energy business of Nalco Champion and simultaneously combine it with Apergy Corp, which was announced on December 19, 2019. The proposed transaction is subject to approval by shareholders of Apergy Corp. This research report is not intended to (1) provide voting advice, (2) serve as an endorsement of the proposed transaction, or (3) result in the procurement, withholding or revocation of a proxy.

BofA Securities is currently acting as Financial Advisor to Facebook Inc in connection with its proposed acquisition of 9.99% stake in Jio Platforms Limited, a wholly-owned subsidiary of Reliance Industries Limited, which was announced on April 21, 2020.

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Disclosures

Important Disclosures

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

* Ratings dispersions may vary from time to time where BoFA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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