



Advanced Transportation Market

Update

May 2020

Electric Vehicles



Mobility-as-a-Service



Autonomous Infrastructure



Data & Analytics



Trucking & Logistics



Non-Road Transportation



Selected Business Updates

Nomura Greentech's Take:

- Mobility service providers have initiated cost reduction programs in the wake of continued demand weakness

- **Amazon** is reported to be in advanced discussions to buy **Zoox**, an AV technology company, at a valuation below the \$3.2bn achieved in its 2018 round ([Wall Street Journal](#))
- **Aurora**, an AV technology company, announced plans to double its workforce to 500 people, as it remained in a "solid position" in regards to capital ([Venture Beat](#))
- **Cruise**, the AV company backed by GM, announced plans to lay off nearly 8% of its 1,800-member workforce in an attempt to cut costs ([TechCrunch](#))
- **Hertz**, the world's second largest car rental company, filed for bankruptcy as a result of COVID-19, which has severely impacted travel and adjacent industries ([Bloomberg](#))
- **Lyft** announced Q1 earnings which beat analyst projections, despite the severe impact from COVID-19 and resultant lay off of 17% of its workforce ([CNBC](#))
- Alphabet's **Sidewalk Labs**, a provider of urban technology infrastructure, canceled its ongoing Toronto smart city project due to "economic uncertainty" ([VentureBeat](#))
- **Tesla** announced it will delay delivery of its new Tesla Semi, a Class 8 electric vehicle, to later in 2021 as a result of battery production constraints ([Utility Dive](#))
- **Uber** announced Q1 earnings that showed losses of \$2.9bn and business disruption due to COVID-19, but strong performance from Uber Eats ([CNFT](#))
- Uber announced additional layoffs of 3,000 employees and shut down 45 offices, which followed just weeks after laying off 3,700 employees ([TechCrunch](#))
- **Uber Eats** reportedly approached Grubhub, a rival food delivery provider with market cap of \$4.5bn, about a takeover to create the largest food delivery platform in the U.S. ([FT](#))
- **Volkswagen** announced that its ID.3 all-electric hatchback will be available to order from June 17th, despite reported delays due to software issues ([TechCrunch](#))
- Volkswagen is in final talks to acquire **JAC Motors**, a Chinese EV maker, for \$500mm and invest in **Guoxuan High-tech**, another Chinese EV maker ([Reuters](#))

Selected Regulatory Developments

Nomura Greentech's Take:

- Both China and Europe are looking to stimulate the economy post COVID-19 through "green" recovery programs which support EVs; the U.S. continues to fall behind in the new energy transition though some individual states, such as California, are making advances

- The state of **California** sued Uber and Lyft for allegedly violating a new state law (AB-5), whereby companies must give gig-economy workers employee benefits ([CNBC](#))
- The **California Air Resources Board** released a new draft of its Advanced Clean Trucks Standard which requires 20% of trucks on the road to be electric by 2030 ([Freightwaves](#)) and discussed requiring TNCs¹, such as Uber, to shift to EVs ([CleanTechnica](#))
- **China** announced plans to spend \$1.5bn to install 200,000 EV chargers throughout the country in an effort to stimulate China's economy post-COVID ([CleanTechnica](#))
- The **EU** announced its Green Deal Strategy in response to COVID-19 which includes €60 – 80bn in spending to boost EV sales and other electrification initiatives ([Bloomberg](#))
- **France** announced plans to roll out support measures by the end of June for its auto and aviation industries post-COVID-19, including new incentives to buy EVs ([Bloomberg](#))
- **London, Paris, Milan, New York** and other cities around the world are drawing up plans to remove street space from cars in favor of cyclists and pedestrians ([De Zeen](#))
- **Ford** cancelled plans with **Rivian** for a fully electric Lincoln SUV, however the two still plan to create an "alternative vehicle" based on Rivian's EV skateboard ([CleanTechnica](#))
- **Luminar**, a LiDAR developer, announced a partnership with **Volvo** to integrate its sensors into Volvo's Scalable Product Architecture 2 platform launching in 2022 ([VentureBeat](#))
- **Nuro**, an autonomous delivery robot startup backed by SoftBank, announced a partnership with **CVS** to deliver prescriptions in a pilot beginning in June ([TechCrunch](#))
- **Softbank** formed a joint venture called **i-Probe** with two Japanese engineering firms to utilize IoT and car data to support road maintenance in the U.S. ([VentureBeat](#))
- **Uber** announced a partnership with **CloudTrucks**, a trucking platform, to help ride-hailing drivers find jobs amidst Uber's slowed demand during COVID-19 ([TechCrunch](#))
- **Voyage**, an AV software provider, announced a partnership with **FCA** to supply purpose-built Chrysler Pacificas developed for integration of AV technology ([TechCrunch](#))

Selected Partnerships

Selected Capital Raises

Nomura Greentech's Take:

- Despite growing uncertainty around the timing of AV deployment, leading developers such as Waymo and Didi Chuxing continue to garner investor interest

Nomura Greentech's Take:

- Platforms for contactless food and other goods delivery are seeing increased demand and capital injection amidst the COVID-19 outbreak, a growth trend which analysts speculate will continue long after the pandemic

- **Waymo** raised an additional **\$750mm** from T. Rowe Price and Fidelity Management, on top of its previously announced \$2.25bn funding round ([TechCrunch](#))
- The **Robotaxi Unit of Didi Chuxing**, a Chinese ride-hailing giant with significant investment in AVs, raised \$500mm led by SoftBank Vision Fund ([Forbes](#))
- **Samsara**, a provider of fleet management and IoT solutions, raised **\$400mm** led by Dragoneer Investment Group, Warburg Pincus and General Atlantic ([Bloomberg](#))
- **Dingdong Maicai**, a Chinese fresh food delivery startup, raised **\$300mm** led by General Atlantic with participation from other undisclosed investors ([Reuters](#))
- **Ninja Van**, a Singapore-based logistics startup, raised **\$279mm** from B Capital Group, Monk's Hill Ventures, Carmenta and Golden Gate Ventures ([Bloomberg](#))
- **BYD Semiconductor**, the semiconductor unit of Chinese EV maker BYD, raised **\$266mm** led by Shenzhen Sequoia Hanchen Equity Investment Partnership ([Caixing Global](#))
- **Chehaoduo**, a China-based platform for trading used vehicles, raised **\$200mm** from SoftBank Vision Fund and Sequoia Capital China ([Deal Street Asia](#))
- **Lime**, an electric scooter company, raised **\$170mm** led by Uber (transferring JUMP in the deal), with participation from Bain Capital Ventures, Alphabet and GV ([CNBC](#))
- **Kurly**, a Korean grocery delivery startup, raised **\$164mm** led by DST Global with participation from Hillhouse Capital and Sequoia Capital China ([Deal Street Asia](#))
- **DispatchTrack**, a developer of a web-based delivery and last mile logistics management platform, raised **\$144mm** from Spectrum Equity ([PR Newswire](#))
- **Bolt**, an Estonia-based on-demand transportation company present in 150 cities globally, raised \$109mm¹ from Naya Capital Management ([TechCrunch](#))
- **Wolt**, a Finnish food delivery startup, raised **\$108mm** led by EQT Ventures, 83North and Highland Europe, with participation from ICONIQ Capital ([Forbes](#))
- **Platform Science**, a La Jolla, California-based trucking and logistics software provider, raised **\$42mm** led by Prologis, with participation from Daimler ([Wall Street Journal](#))
- **Cheetah**, a contactless food and supply pickup and delivery platform, raised **\$36mm** led by Eclipse Ventures, with participation from ICONIQ Capital ([Crunchbase](#))
- **SiMa.ai**, a developer of low-power software and chip solutions with applications in advanced transportation, raised **\$30mm** led by Dell Technologies Capital ([TechCrunch](#))
- **ZAF Energy Systems**, a developer of battery technology, raised **\$22mm** led by 3CR-Riverbend, Élevage Capital Management and Catalus Capital ([Press Release](#))
- **IRP Systems**, a provider of electric powertrain products, raised **\$17mm** led by Fosun RZ Capital with participation from JAL Ventures and Union Tech Ventures ([PR Newswire](#))
- **VanMoof**, an Amsterdam-based developer of electric bikes, raised **\$14mm** led by Balderton Capital with participation from Sinbon Electronics ([VentureBeat](#))
- **Wallbox**, a Barcelona-based provider of EV charging products, raised **\$13mm** led by Seaya Ventures with participation from Endeavor Catalyst and Iberdrola ([FinSMEs](#))

Selected Public Equity & Debt Deals

- **Uber** announced a **\$900mm** bond issuance, just a day after a report announced the company made an offer to acquire Grubhub, a food delivery company ([L.A. Times](#))
- **Dada Nexus**, a Shanghai-based crowd-sourced delivery and last mile logistics platform, filed for its initial public offering on the Nasdaq to raise up to **\$500mm** ([Bloomberg](#))
- **Allpark**, one of the largest parking operators in Brazil filed for an IPO on the B3 stock exchange to raise up to **\$59mm** ([Reuters](#))
- **Vroom**, an platform for online used car sales, filed confidentially for IPO ([WSJ](#))

Selected Mergers & Acquisitions

- **Intel** acquired **Moovit**, an Israel-based mobility-as-a-service provider and journey planner mobile app, for **\$900mm** ([TechCrunch](#))
- **Omnicrats**, a global provider of fleet management solutions, acquired **VisTracks**, a provider of logistics compliance solutions, for an undisclosed amount ([Business Wire](#))

Capital Raises

Date	Company	Amount Raised (\$mm)	Disclosed Investors	Company Description
5/1	ZAF Energy Systems	\$22	3CR-Riverbend, Élevage Capital Management, Catalus Capital, Holt Ventures, Coventry Asset Management	Battery technology developer
5/1	Cheetah	\$36	Eclipse Ventures, ICONIQ Capital, Hanaco Ventures, Floodgate	San Francisco-based contactless food and supply pickup and delivery platform
5/1	KlearNow	\$16	GreatPoint Ventures, Autotech Ventures, Argean Capital, Monta Vista Capital	San Francisco-based platform for customs clearance in international shipping and freight
5/4	Ninja Van	\$279	B Capital Group, Monk's Hill Ventures, Carmenta, Golden Gate Ventures Growth Fund, Intouch Holding, Grab	Singapore-based logistics startup
5/4	Loadshare Networks	\$13	Beenext, CDC Group, Matrix Partners, Stellaris Venture Partners, Alteria Capital	Logistics solutions platform for small and medium-sized businesses
5/5	Finite State	\$13	Energy Impact Partners	Ohio-based supply chain and IoT security firm
5/5	Sleuth	\$3	CRV, New Relic, Atlassian, LaunchDarkly	Delivery deployment tracking platform
5/5	Platform Science	ND	Daimler Truck AG	California-based platform for fleet management software solutions
5/6	Chehaoduo	\$200	SoftBank Vision Fund, Sequoia Capital China	China-based online used car trading platform
5/6	SVT Robotics	\$4	Cowboy Ventures, Dynamo Ventures, Schematic Ventures, Ludlow Ventures, NRV	Software provider for industrial robotics
5/7	Toposens	ND	Alphana Ventures, Basinghall Partners, In-Q-Tel	Munich-based developer of advanced ultrasonic sensors for automotive and robotics
5/7	Lime	\$170	Uber, Alphabet, GV, Bain Capital Ventures	Electric scooter company
5/7	Nextmv	\$3	FirstMark Capital, Dynamo, Xfactor, Atypical, 2048	Provider of optimization decision models and testing for logistics companies
5/8	Kurly	\$164	DST Global, Hillhouse Capital, Sequoia Capital China, Fuse Venture Partners, SK Networks, Translink Capital, Aspex Management	Korean grocery delivery startup
5/12	Waymo	\$750	T. Rowe Price, Perry Creek Capital, Fidelity Management and Research Company,	Driverless vehicle company
5/12	Dingdong Maicai	\$300	General Atlantic	China-based fresh food delivery startup
5/12	DispatchTrack	\$144	Spectrum Equity	Developer of a web-based delivery and logistics management platform
5/12	Sima.ai	\$30	Dell Technologies Capital, Amplify Partners, Wing Venture Capital, +ND Capital	Developer of low-power chip solutions for advanced transportation applications
5/12	IRP Systems	\$17	Fosun RZ Capital, JAL Ventures, Entrée Capital, Tal Capital, Union Tech Ventures, Cendana Capital, Champion Motors	Developer of electric powertrain products
5/12	VanMoof	\$14	Balderton Capital, Sinbon Electronics	Amsterdam-based developer of electric bikes
5/13	Wallbox	\$13	Seaya Ventures, Endeavor Catalyst, Iberdrola	Barcelona-based provider of EV charging products
5/13	Axonne	ND	Intel Capital	Developer of next-gen high-speed Ethernet connectivity solutions for automobiles

Capital Raises (cont.)

Date	Company	Amount Raised (\$mm)	Disclosed Investors	Company Description
5/15	Wolt	\$108	EQT Ventures, 83North, Highland Europe, ICONIQ Capital, Goldmans Sachs	Finnish food delivery startup
5/17	Xona Space Systems	\$1	1517, Trucks VC	Satellite-based localization startup
5/18	Regulus Cyber	\$4	SPDG Ventures, Sierra Ventures, Canaan Partners Israel, F2 Capital, Technion TIOF Fund, Technion \$&D Foundation	Cybersecurity company focused on protecting satellite navigation for automotive and IoT
5/20	Samsara	\$400	Dragoneer Investment Group, Warburg Pincus, General Atlantic, Andreessen Horowitz, General Catalyst, Tiger Global Management, AllianceBernstein, Franklin Templeton, Sands Capital Management	Provider of fleet management solutions
5/20	SOS LAB	\$8	Korea Development Bank, A Ventures, Emford Equity Partners, Ulmus Investment, KDB Capital, Shinhan Capital, Shinhan Financial Group	Korean LIDAR sensor company
5/20	Xwing	\$10	R7 Partners, Thales, Alven, Eniac Ventures	San Francisco-based company focused on autonomy in aviation
5/22	By Miles	\$18	CommerzVentures, Octopus Ventures, Insurtech Gateway, JamJar	U.K.-based pay-by-mile car insurance company
5/26	Platform Science	\$42	Prologis, Daimler, 8VC, NewRoad Capital Partners, Schematic Ventures, Cambridge Capital	Trucking software provider
5/26	Milkman	\$27	Poste Italiane, P101 sgr, Italia500, Vertis, 360 Capital	Milan, Italy-based logistics platform
5/26	Bolt	\$109	Naya Capital Management	Estonia-based transportation network company
5/27	BYD Semiconductor	\$266	Shenzhen Sequoia Hanchen Equity Investment Partnership, Zhongjin Pucheng Investment, Advanced Manufacturing Industry Investment Fund	Semiconductor unit of BYD, Chinese EV company
5/28	DiDi Chuxing (Robotaxi Unit)	\$500	SoftBank Vision Fund	Robotaxi unit of Didi Chuxing, China-based ride-hailing company

M&A

Date	Target	Acquiror	EV (\$mm)	EV / Revenue	EV / EBITDA	Target Description
5/4	Moovit	Intel	\$900	1.1x	ND	Israel-based provider of an urban traffic analysis and transportation platform
5/11	Omnitracs	VisTracks	ND	ND	ND	Provider of device-agnostics, SaaS-based compliance solutions for the logistics and transport industries
5/21	Connexas	AddSecur Group	ND	ND	ND	Fleet management busineses
5/22	CityBike	Sherpa Capital	ND	ND	ND	Barcelona-based bike sharing company
5/27	Etergo	Ola Electric	ND	ND	ND	Amsterdam-based electric scooter startup

IPO

Date	Company	Offer Price	Implied EV (\$mm)	Revenue	EV / EBITDA	Company Description
5/13	Allpark	\$1.80	\$59	ND	ND	Brazilian parking operator

Public Debt Offerings¹

Date	Company	Debt Amount (\$mm)	Coupon	Offering Price % of Par	Maturity Date	Company Description
5/4	Texas Instruments	\$750	1.75%	99.96	5/4/2030	Designer and manufacturer of semiconductors
5/8	Qualcomm	\$2,000	2.15% ²	99.20 ²	5/20/2030 ²	Telecommunications and integrated circuit solutions provider
5/15	Lyft ³	\$650	1.50%	100.00	5/15/2025	Global ride-hailing provider
5/15	Uber	\$900	7.50%	100.00	5/15/2025	Global ride-hailing provider
5/18	Goodyear Tire & Rubber	\$600	9.50%	100.00	5/31/2025	Global tire manufacturer
5/21	AT&T	\$12,500	2.30% ⁴	99.85 ⁴	6/1/2027 ⁴	Global telecom company
5/27	General Motors	\$1,500	5.20%	99.96	3/20/2023	U.S.-based OEM

Source: FactSet, PitchBook, Public Disclosures.

1. Only includes corporate debt offerings and does not include any debt offerings made by subsidiaries. Excludes debt issuance amounts less than \$500mm.
2. Denotes figures only representative of issuance of shortest maturity. Total \$2.0bn issuance amount was made in 2 parts of varying maturities, coupon rates and prices.
3. Issuance made in the form of convertible notes.
4. Denotes figures only representative of issuance of shortest maturity. Total \$12.5bn issuance amount was made in 5 parts of varying maturities, coupon rates and prices.

Advanced Transportation Trading Comparables

Company	Price as of	% 52-Week	Market	Firm	EV/Revenue		EV/EBITDA		P / E	
	5/29/20	High	Cap (\$mm)	Value (\$mm)	2020E	2021E	2020E	2021E	2020E	2021E
Automotive Companies										
Toyota	¥ 6755	85.2%	\$173,438	\$284,018	1.2x	1.1x	10.9x	10.4x	12.7x	10.8x
Volkswagen	€ 142.40	77.8%	\$79,404	\$257,803	1.1x	1.0x	8.3x	6.1x	14.1x	6.6x
Daimler	€ 33.38	61.9%	\$39,722	\$184,877	1.1x	1.0x	19.8x	11.2x	40.2x	8.7x
Tesla	\$ 835.00	91.0%	\$166,165	\$174,591	6.6x	4.7x	45.2x	28.8x	NM	NM
BMW	€ 52.60	69.3%	\$38,550	\$152,728	1.5x	1.4x	14.2x	11.5x	14.8x	8.2x
Ford	\$ 5.71	54.3%	\$22,629	\$141,525	1.2x	1.0x	NM	14.5x	NM	19.0x
General Motors	\$ 25.88	63.3%	\$37,267	\$112,149	1.0x	0.9x	12.8x	8.7x	33.3x	6.8x
Honda	¥ 2784	86.2%	\$45,274	\$86,260	0.7x	0.7x	10.3x	8.8x	13.1x	9.3x
Nissan	¥ 401	50.8%	\$14,561	\$76,059	0.9x	0.9x	16.3x	16.8x	NM	26.7x
Hyundai	₩ 98000	68.3%	\$20,638	\$59,197	0.7x	0.7x	10.1x	8.4x	9.8x	6.1x
SAIC Motor	¥ 17.92	66.4%	\$29,300	\$38,509	0.4x	0.3x	10.3x	7.8x	9.3x	7.5x
Renault	€ 20.21	34.8%	\$6,544	\$29,311	0.6x	0.5x	9.0x	5.5x	NM	6.5x
BYD	HK\$ 43.50	81.2%	\$15,311	\$24,328	1.3x	1.1x	11.3x	9.7x	NM	36.1x
Suzuki	¥ 3746	70.1%	\$16,300	\$17,282	0.6x	0.5x	6.1x	5.3x	17.1x	14.0x
Fiat Chrysler	€ 7.94	54.1%	\$13,852	\$12,859	0.1x	0.1x	2.0x	1.2x	NM	5.8x
Tata Motors	₹ 86.90	43.4%	\$3,995	\$12,459	0.4x	0.3x	3.7x	2.8x	NM	14.6x
Subaru	¥ 2379	75.8%	\$16,929	\$11,152	0.4x	0.4x	4.5x	4.1x	16.9x	12.8x
Geely	HK\$ 10.60	64.9%	\$12,623	\$9,749	0.7x	0.6x	5.7x	4.8x	10.8x	8.6x
KIA1	₩ 34250	73.8%	\$11,088	\$9,632	0.2x	0.2x	3.2x	2.6x	9.9x	6.4x
Dongfeng Motor1	HK\$ 4.86	57.4%	\$5,402	\$8,705	0.7x	0.7x	25.9x	21.1x	3.6x	3.0x
NIO	\$ 3.98	77.0%	\$4,129	\$5,901	3.3x	2.3x	NM	NM	NM	NM
Mazda	¥ 689	60.1%	\$4,029	\$4,786	0.2x	0.2x	7.4x	4.8x	NM	49.7x
Peugeot	€ 12.81	49.2%	\$13,435	\$4,678	0.1x	0.1x	0.7x	0.5x	10.7x	4.4x
FAW Car Group	¥ 10	85.7%	\$6,496	\$4,345	0.3x	0.3x	11.8x	8.6x	17.1x	12.0x
Mitsubishi	¥ 304	57.0%	\$4,200	\$3,412	0.2x	0.2x	7.6x	4.1x	NM	NM
Guangzhou Automobile	HK\$ 6.37	63.9%	\$8,414	\$1,440	0.2x	0.2x	NM	5.3x	8.2x	6.5x
Mean		66.3%			1.0x	0.8x	11.2x	8.5x	15.1x	12.6x
Median		65.7%			0.7x	0.6x	10.1x	7.8x	12.9x	8.6x
Truck Companies										
Daimler	€ 33.38	61.9%	\$39,722	\$184,877	1.1x	1.0x	19.8x	11.2x	40.2x	8.7x
Volvo	KR 133.25	76.8%	\$28,769	\$39,141	1.1x	1.0x	11.2x	8.0x	23.2x	12.7x
PACCAR	€ 73.86	89.0%	\$25,652	\$32,370	2.2x	1.8x	22.4x	15.9x	26.9x	17.4x
Traton SE	€ 15.14	55.5%	\$8,419	\$16,650	0.7x	0.6x	11.9x	6.4x	45.5x	9.2x
MAN SE	€ 44.00	65.9%	\$7,197	\$9,084	0.6x	0.6x	5.7x	5.4x	NM	NM
Isuzu	¥ 1010	72.4%	\$6,911	\$8,728	0.5x	0.5x	5.7x	4.9x	13.4x	10.6x
Navistar	\$ 25.14	66.8%	\$2,501	\$6,268	0.8x	0.7x	13.7x	10.0x	NM	19.5x
Nikola 2	\$ 28.70	94.7%	\$851	\$850	NM	5.7x	NM	NM	NM	NM
Mean		69.8%			1.0x	1.5x	12.9x	8.8x	29.8x	13.0x
Median		66.8%			0.8x	0.9x	11.9x	8.0x	26.9x	11.7x
Tier 1 Suppliers										
Denso	¥ 4131	80.2%	\$29,712	\$29,013	0.7x	0.6x	7.1x	5.2x	28.0x	14.5x
Bridgestone	¥ 3577	77.0%	\$23,415	\$27,964	0.9x	0.9x	5.4x	5.0x	12.7x	10.5x
Continental	€ 88.44	66.7%	\$19,676	\$24,334	0.6x	0.5x	6.3x	4.2x	37.7x	11.3x
Michelin	€ 90.86	77.7%	\$18,174	\$23,210	1.0x	0.9x	6.3x	4.9x	17.1x	10.2x
Aptiv	€ 75.35	77.0%	\$19,277	\$21,806	1.8x	1.5x	16.2x	9.8x	NM	18.7x
Knorr-Bremse	€ 95.18	94.6%	\$17,067	\$18,130	2.8x	2.5x	18.9x	13.8x	42.1x	26.4x
Magna	€ 58.06	77.7%	\$12,715	\$16,656	0.6x	0.5x	8.2x	5.1x	31.1x	9.1x
Valeo	€ 22.15	60.6%	\$5,920	\$9,136	0.5x	0.4x	4.6x	3.4x	NM	14.1x
Lear	\$ 106.05	74.9%	\$6,435	\$8,090	0.5x	0.4x	8.7x	5.1x	45.9x	9.2x
Goodyear	\$ 7.61	44.5%	\$1,781	\$8,088	0.7x	0.6x	15.0x	5.5x	NM	9.3x
Faurecia	€ 34.66	68.4%	\$5,300	\$7,840	0.5x	0.4x	4.4x	3.3x	30.9x	7.9x
BorgWarner	\$ 32.15	69.4%	\$6,629	\$7,503	0.9x	0.8x	7.2x	5.2x	18.7x	9.8x
Gentex	\$ 26.44	84.9%	\$6,547	\$6,214	3.8x	3.2x	13.4x	10.4x	21.1x	15.8x
Dana	\$ 12.64	63.1%	\$1,830	\$4,099	0.6x	0.5x	7.9x	5.2x	36.1x	7.0x
Alient	\$ 17.01	59.9%	\$1,596	\$3,951	0.3x	0.3x	6.1x	4.1x	NM	8.5x
American Axle & Manufacturing Holdings	\$ 7.11	55.1%	\$801	\$3,855	0.9x	0.7x	8.1x	5.1x	NM	10.9x
Delphi	\$ 12.88	64.4%	\$1,110	\$2,659	0.8x	0.7x	8.7x	5.9x	NM	9.1x
Visteon	\$ 72.00	75.1%	\$2,009	\$2,197	0.9x	0.7x	17.4x	8.6x	NM	21.8x
Gentherm	\$ 40.70	82.9%	\$1,338	\$1,362	1.8x	1.5x	15.9x	10.0x	46.0x	18.1x
Nexteer	HK\$ 4.21	41.4%	\$1,362	\$1,110	0.4x	0.3x	2.5x	2.1x	7.8x	5.6x
Stoneridge	\$ 20.58	60.6%	\$568	\$655	1.1x	1.0x	29.9x	10.1x	NM	21.9x
Veoneer	\$ 10.78	58.7%	\$1,202	\$437	0.3x	0.3x	NM	NM	NM	NM
Mean		68.8%			1.0x	0.9x	10.4x	6.3x	28.9x	12.8x
Median		68.9%			0.7x	0.7x	8.1x	5.2x	30.9x	10.5x
Mobility-as-a-Service										
Uber	\$ 36.32	78.3%	\$61,744	\$61,556	4.7x	3.4x	NM	NM	NM	NM
Lyft	\$ 31.26	46.3%	\$9,519	\$7,380	2.6x	1.8x	NM	NM	NM	NM
Mean		62.3%			3.7x	2.6x	NM	NM	NM	NM
Median		62.3%			3.7x	2.6x	NM	NM	NM	NM

Source: FactSet, SEC Filings and Third Party Providers. Values in U.S. Dollars. Share prices shown in local currencies. Multiples above 50.0x not shown. Note:

Few of the companies in the comparables set have, at the time of publication of this Monthly, updated their 2020E guidance to take into account COVID-19 impacts. Therefore, the above 2020E multiples should be reviewed in that context.

1. Firm value excludes investments in unconsolidated subsidiaries.
2. Figure based off of VectoIQ trading price at 5/29. Acquisition expected to close on 6/3, at which time the company will trade under ticker NKLA.

Advanced Transportation Trading Comparables (cont.)

Company	Price as of	% 52-Week	Market	Firm	EV/Revenue		EV/EBITDA		P / E	
	5/29/20	High	Cap (\$mm)	Value (\$mm)	2020E	2021E	2020E	2021E	2020E	2021E
Autonomous Driving Chip Makers										
Intel	\$ 62.93	91.9%	\$271,354	\$286,920	3.9x	3.9x	8.2x	8.4x	13.2x	12.8x
Nvidia	\$ 355.02	98.3%	\$220,822	\$212,046	14.9x	12.6x	37.4x	30.7x	45.7x	36.9x
Texas Instrument	\$ 118.74	88.4%	\$111,972	\$113,764	9.3x	8.3x	22.6x	18.5x	30.1x	25.1x
Qualcomm	\$ 80.88	84.3%	\$93,093	\$99,273	4.5x	3.7x	14.5x	10.9x	19.1x	13.7x
Advanced Micro Devices	\$ 53.80	91.3%	\$65,851	\$65,103	7.7x	6.5x	43.5x	30.1x	NM	37.4x
Analog	\$ 112.95	90.6%	\$41,939	\$47,061	8.8x	8.1x	20.8x	18.2x	25.8x	22.0x
NXP	\$ 96.10	69.3%	\$26,902	\$33,630	4.4x	3.9x	14.5x	10.8x	20.3x	14.5x
STMicro	€ 22.09	75.2%	\$22,525	\$22,460	2.5x	2.1x	13.1x	9.0x	33.1x	17.6x
Infineon	€ 18.86	82.5%	\$24,431	\$21,926	2.2x	1.9x	9.4x	7.4x	29.2x	19.2x
Renesas	¥ 559	68.1%	\$9,031	\$14,736	2.4x	2.2x	8.9x	7.9x	NM	24.0x
ON Semi	\$ 16.49	64.4%	\$6,771	\$9,659	1.9x	1.8x	11.0x	8.0x	31.7x	13.1x
Mean		82.2%			5.7x	5.0x	18.5x	14.5x	27.6x	21.5x
Median		84.3%			4.4x	3.9x	14.5x	10.8x	29.2x	19.2x
Intelligent Transport / ITS / Smart Tolling										
Atlanta	€ 14.60	59.1%	\$13,280	\$53,278	5.4x	4.6x	9.5x	7.3x	36.7x	12.2x
Roper Technologies	\$ 393.80	100.0%	\$41,467	\$45,744	8.5x	8.1x	24.0x	22.7x	32.2x	30.2x
FLIR Systems	\$ 46.20	78.6%	\$6,234	\$6,800	3.6x	3.5x	15.7x	14.4x	22.1x	20.1x
LS Corp	₩ 37400	73.8%	\$839	\$3,385	0.4x	0.4x	6.6x	5.9x	9.2x	6.0x
Autostrada	€ 18.50	58.5%	\$2,687	\$3,101	1.5x	1.3x	4.5x	3.6x	15.7x	10.1x
Conduent	\$ 2.39	24.2%	\$505	\$2,201	0.6x	0.6x	6.1x	5.5x	10.4x	6.1x
Cubic Corporation	\$ 41.21	55.0%	\$1,290	\$2,100	1.4x	1.3x	13.3x	11.0x	13.3x	11.0x
Vaisala	€ 35.65	96.6%	\$1,433	\$1,431	3.3x	3.2x	21.2x	18.7x	40.5x	34.8x
Kapsch TrafficCom	€ 17.50	48.7%	\$253	\$338	0.4x	0.4x	8.1x	6.2x	NM	12.9x
INIT Innovation in Traffic Systems	€ 27.60	99.3%	\$307	\$318	1.6x	1.4x	10.7x	9.1x	21.5x	17.6x
Itecs	\$ 4.81	73.5%	\$195	\$182	1.6x	1.4x	NM	22.3x	NM	43.7x
Q-Free	NOK 3.80	48.7%	\$35	\$58	0.5x	0.5x	7.6x	7.1x	NM	NM
Mean		68.0%			2.4x	2.2x	11.6x	11.1x	22.4x	18.6x
Median		66.3%			1.5x	1.3x	9.5x	8.2x	21.5x	12.9x
Telematics										
Descartes Systems	\$ 47.59	100.0%	\$4,067	\$4,033	11.9x	10.8x	30.0x	26.3x	NM	NM
Inseeqo	\$ 10.62	75.5%	\$965	\$1,032	3.4x	2.9x	NM	19.3x	NM	37.9x
TomTom	€ 7.63	66.1%	\$1,117	\$680	1.1x	1.0x	NM	48.5x	NM	NM
Orbcomm	\$ 2.74	33.8%	\$215	\$428	1.7x	1.5x	8.4x	6.2x	NM	NM
Ituram	\$ 17.11	52.3%	\$356	\$395	1.6x	1.5x	7.0x	6.3x	15.6x	11.9x
CalAmp	\$ 7.70	64.7%	\$261	\$393	1.2x	1.1x	14.0x	9.6x	NM	18.8x
Quartix	£ 3.85	87.3%	\$230	\$222	6.9x	6.7x	26.8x	26.4x	33.8x	33.5x
Mix Telematics	R 5.90	56.7%	\$183	\$173	1.5x	1.3x	7.4x	6.8x	NM	24.9x
TeleNav 1	\$ 4.95	42.8%	\$237	\$121	0.5x	0.5x	23.5x	NM	NM	NM
Quarterhill (fka Wi-LAN)	C\$ 2.01	96.2%	\$173	\$99	1.0x	0.9x	7.0x	3.9x	NM	12.6x
Mean		67.5%			3.1x	2.8x	15.5x	17.0x	24.7x	23.3x
Median		65.4%			1.6x	1.4x	11.2x	9.6x	24.7x	21.9x
Logistics										
UPS	\$ 99.71	80.2%	\$86,648	\$108,822	1.5x	1.4x	13.0x	10.6x	17.8x	14.2x
FedEX	\$ 130.56	74.2%	\$34,207	\$65,883	0.9x	0.9x	9.3x	8.5x	13.0x	11.2x
Deutsche Post	€ 27.98	80.2%	\$39,109	\$55,264	0.8x	0.8x	6.6x	5.8x	14.5x	11.3x
AP Moeller Maersk	DKK 6550	63.5%	\$19,525	\$32,382	0.9x	0.9x	6.9x	5.8x	NM	35.2x
Hapag Lloyd	€ 86.50	46.4%	\$16,915	\$23,202	1.8x	1.7x	12.5x	11.0x	NM	NM
XPO Logistics	\$ 78.81	79.5%	\$8,117	\$15,352	1.0x	0.9x	12.2x	9.5x	NM	21.0x
J.B. Hunt	\$ 119.67	99.2%	\$12,799	\$14,053	1.6x	1.5x	12.0x	10.6x	28.8x	22.0x
C.H. Robinson	\$ 81.13	89.6%	\$11,031	\$12,507	0.9x	0.8x	19.3x	15.5x	28.5x	22.2x
Knight-Swift Trucking	\$ 41.61	100.0%	\$7,127	\$7,823	1.8x	1.7x	8.9x	7.9x	24.1x	19.1x
Schneider Trucking	\$ 24.17	100.0%	\$4,288	\$3,975	0.9x	0.9x	7.5x	6.6x	23.5x	18.6x
Werner	\$ 46.22	100.0%	\$3,217	\$3,407	1.5x	1.4x	7.8x	7.0x	24.7x	19.8x
Mean		83.0%			1.2x	1.2x	10.6x	9.0x	21.9x	19.5x
Median		80.2%			1.0x	0.9x	9.3x	8.5x	23.8x	19.4x
Communications / Infrastructure										
AT&T	\$ 30.86	77.9%	\$222,624	\$415,943	2.4x	2.4x	7.4x	7.2x	9.5x	9.3x
Verizon	\$ 57.38	92.4%	\$237,611	\$369,494	2.9x	2.8x	7.9x	7.7x	12.0x	11.7x
Cisco Systems	\$ 47.82	82.4%	\$202,900	\$190,153	3.9x	3.8x	10.6x	10.6x	15.1x	14.7x
T-Mobile	\$ 100.04	98.2%	\$86,634	\$127,543	1.9x	1.7x	6.1x	5.7x	NM	45.1x
Hitachi	¥ 3455	73.9%	\$31,007	\$43,065	0.5x	0.5x	4.4x	4.1x	6.9x	6.4x
Toshiba	¥ 2944	74.0%	\$12,536	\$13,372	0.4x	0.4x	6.3x	5.6x	41.6x	11.8x
Mean		83.1%			2.0x	1.9x	7.1x	6.8x	17.0x	16.5x
Median		80.1%			2.2x	2.0x	6.8x	6.4x	12.0x	11.8x

Source: FactSet, SEC Filings and Third Party Providers. Values in U.S. Dollars. Share prices shown in local currencies. Multiples above 50.0x not shown. Note: Few of the companies in the comparables set have, at the time of publication of this Monthly, updated their 2020E guidance to take into account COVID-19 impacts. Therefore, the above 2020E multiples should be reviewed in that context.

1. Denotes limited equity research coverage.

Nomura Greentech Offices



Nomura Greentech Transactions

Mergers & Acquisitions

- Corporate sales
- Acquisitions
- Minority investments
- Joint ventures
- Fairness opinions

\$33bn

Asset Transactions

- Acquisitions
- Divestitures
- Passive equity
- Development capital formation

Operating **27GW** | Development **50GW**

Capital Raising

- Equity private placements
- Debt private placements
- Project finance advisory
- Co-managed public offerings

\$4bn

Strategic Advisory

- Strategic consulting
- IPO preparation
- Financial restructuring
- Specialized opinions
- Independent capital markets advice

>25 assignments

Note: As of May 31st, 2020.

Highly Experienced Senior Leadership Supported by 65 Professionals

<p>Jeff McDermott</p> <p>Managing Director, Group Head New York jeff.mcdermott@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 30+ years of experience ■ >150 completed transactions ■ Founder and head of advisory business ■ Large industrials and energy companies ■ Broad coverage of senior leaders 	<p>Derek Bentley</p> <p>Managing Director New York derekbentley@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >35 completed transactions ■ Renewable energy assets ■ Energy storage ■ Distributed generation ■ Water 	<p>Laurent Dallet</p> <p>Managing Director Zürich laurent.dallet@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >30 completed transactions ■ Renewable energy assets ■ Distributed energy production ■ Energy efficiency and services 	<p>PJ Deschenes</p> <p>Managing Director New York pj.deschenes@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >30 completed transactions ■ Renewable energy assets ■ Power infrastructure services ■ Renewable energy value chain ■ Environmental services 	<p>Michael Horwitz</p> <p>Managing Director San Francisco michael.horwitz@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >40 completed transactions ■ Energy efficiency ■ Energy software and services ■ Energy storage ■ Renewable energy ■ Smart grid ■ Blockchain 	<p>Olav Junttila</p> <p>Managing Director Chicago olav.junttila@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >30 completed transactions ■ Energy software and services ■ Energy efficiency ■ Renewable energy ■ Utilities 	<p>John McClure</p> <p>Managing Director San Francisco john.mcclure@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 25+ years of experience ■ >20 completed transactions ■ Advanced transportation ■ Edge computing ■ Semi-conductors ■ Industrial sensors
<p>Steve Megyery</p> <p>Managing Director New York steve.megyery@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >30 completed transactions ■ Head of Private Placements ■ Cleantech ■ Power infrastructure 	<p>Frank Nicklaus</p> <p>Managing Director New York frank.nicklaus@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 15+ years of experience ■ >25 completed transactions ■ Renewable energy assets ■ Power infrastructure services ■ Renewable energy value chain 	<p>Diego Pignatelli</p> <p>Managing Director Zürich diego.pignatelli@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 30+ years of experience ■ >60 completed transactions ■ European coverage ■ Industrials and energy companies ■ Utilities 	<p>Damien Sauer</p> <p>Managing Director Zürich damien.sauer@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 20+ years of experience ■ >50 completed transactions ■ Energy efficiency ■ Power infrastructure ■ Renewable energy value chain ■ Smart grid 	<p>Alex Stein</p> <p>Managing Director Zürich alex.stein@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 10+ years of experience ■ >20 completed transactions ■ Energy transition ■ Industry 4.0 ■ Environmental technology and services 	<p>Duncan Williams</p> <p>Managing Director San Francisco duncan.williams@nomura.com nomura.com</p> <ul style="list-style-type: none"> ■ 25+ years of experience ■ >40 completed transactions ■ Advanced Transportation ■ Sustainable Food & AgTech ■ Industrial IoT & software ■ Environmental services ■ Water 	

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