April 29, 2022

Friends and Fellow Investors:

For April 2022 the fund was up approximately 20.2% net of all fees and expenses. By way of comparison, the S&P 500 was down 8.7% while the Russell 2000 was down 9.9%. Year to date the fund is up approximately 26.7% net of all fees and expenses. By way of comparison, the S&P 500 is down 12.9% while the Russell 2000 is down 16.7%. Since inception on June 1, 2011 the fund is up 117.1% net while the S&P 500 is up 281.5% and the Russell 2000 is up 154.5%. Since inception the fund has compounded at 7.4% net annually vs 13.1% for the S&P 500 and 8.9% for the Russell 2000. (The S&P and Russell performances are based on their "Total Returns" indices which include reinvested dividends. The fund's performance results are approximate; investors will receive exact figures from the outside administrator within a week or two. Please note that individual partners' returns will vary in accordance with their high-water marks.)

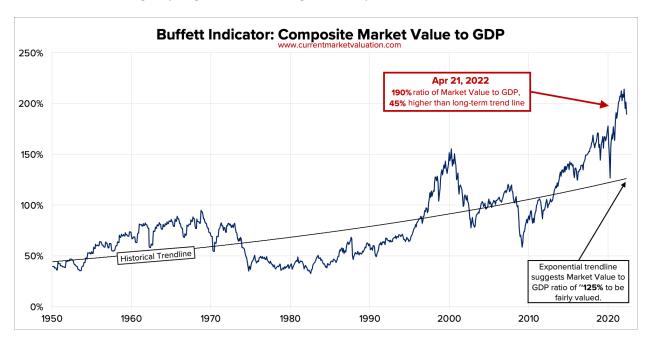
The biggest asset bubble in U.S. history was blown with the Fed printing \$120 billion a month and shortterm rates at zero while the government concurrently ran a record fiscal deficit and inflation was moderate. Now we have the Fed about to *reduce* its balance sheet, <u>medium and long-term Treasuries</u> <u>yielding near 3%</u> (on their way, I believe, to much higher), *no* extra fiscal stimulus and <u>the highest inflation</u> <u>rate in over 40 years</u>, while increased military spending for the entire western world (as well as Japan and South Korea) is about to erase the so-called "peace dividend." In other words, the bubble was destined to burst and we were, and remain, positioned for it (although there will undoubtedly be some fierce bear market rallies, and I shall do my best to navigate through them).

The last time the 10-year Treasury yield was where it is now (approximately 2.9%) was December 2018 when the S&P 500 was around 2700 (approximately 35% lower than it is today), yet inflation was *vastly* lower (allowing much higher PE multiples) and growth prospects were far better. And although corporate earnings are higher now than they were then, I believe inflation expectations are in the process of substantially lowering the PE multiples placed on those earnings, as happened in the inflationary era between 1973 and 1975 when the S&P 500's PE rapidly dropped from 18x to 8x. (Perhaps a move from 30x to 15x might be in order this time around.) So I think this stock market is going *much* lower, and we thus continue to have a large short position in the S&P 500 via the SPY ETF (although I temporarily reduced the position size in late April, as the market looks a bit short-term oversold to me), as well as a large short position in Tesla, the biggest bubble-stock in this entire bubble era, which will soon be to electric cars what Blackberry became to smartphones: the pioneer that wound up with arrows in its back.

Meanwhile, even last year when short-term rates were set at just 0.125% and average rates were around 1.5%, the interest on the \$30 trillion of federal debt cost <u>\$562 billion</u>. That interest cost is now on a path to *double*, yet even then would still be *far* below the anticipated rate of inflation. Does anyone seriously think this Fed has the stomach to face the political firestorm of Congress having to slash Medicare, the defense budget, etc. in order to pay the even *higher* interest cost that would be created by upping those

rates to a level commensurate with even 4% or 5% inflation (not to mention today's over 8%)? Powell doesn't have the guts for that, nor does anyone else in Washington; thus, this Fed will likely be behind the inflation curve for at least a *decade*. And that's why we remain long gold (via the GLD ETF).

And finally, we can see from <u>CurrentMarketValuation.com</u> that (as of April 21<sup>st</sup>) the U.S. stock market's valuation as a percentage of GDP (the so-called "Buffett Indicator") is still astoundingly high, and thus valuations have a long way to go before reaching "normalcy":



When stocks get meaningfully cheaper I'll flip net long, but until then we're likely to remain net short.

# Here then is some additional commentary on some of our positions; please note that we may add to or reduce these positions at any time...

New to the fund is a small long position in Fuel Tech Inc. (FTEK), a seller of air and water pollution control technologies. Although there's no identifiable near-term catalyst for this stock, at our basis of \$1.33/share we paid an enterprise value of less than 0.2x revenue for this 30% gross margin company which has almost \$1.20/share in cash, no debt, and in its last reported quarter reached almost break-even, losing just \$0.01/share. This is the kind of company that will either ignite growth and its stock will take off (its new "Dissolved Gas Infusion" water treatment technology is a potential catalyst for that), or it's so cheap that it makes a good strategic acquisition target, as removing the costs of being an independent public company would make it instantly profitable while allowing the buyer to acquire a nice chunk of revenue very cheaply. In short, at its current price I think it's a good "value stock" in which to park some money and see what happens.

We continue to own a long position in Volkswagen AG (via its VWAPY ADR, which represent "preference shares" that are identical to "ordinary" shares except they lack voting rights and thus sell at a discount).

Volkswagen controls <u>a massive number of terrific brands</u> (including Porsche, which in February <u>VW</u> <u>announced</u> it plans to spin off in a value unlocking transaction), and its EVs (several of which are more technologically advanced than any Tesla) combine to outsell Tesla in Europe and by late 2023 should match Tesla's EV sales in China. In March VW <u>reported</u> great 2021 financials and excellent guidance for 2022, although it did <u>later warn</u> that 2022 results will be adversely affected by parts shortages caused by the terrible situation in Ukraine. In total (without chip shortages) VW sells nearly 10 million vehicles a year vs. around 1.3 million a year for Tesla. Yet Tesla's market cap is over 9x VW's, meaning that an investor pays roughly 70x as much for each Tesla sold as for each VW sold! And VW sells for only less than 5x estimated 2022 earnings!

We continue to own a long position in General Motors (GM), which currently sells for less than 5.5x the \$7/share midpoint of 2022's adjusted EPS guidance. GM is doing all the right things in <u>electric cars</u>, autonomous driving (via its <u>Cruise ownership</u>) and software, yet it's extremely cheap because, as with other established automakers, investors have (for now) forsaken it in favor of "electric car pure-plays," a sector which has thus become the largest valuation bubble in history. And regarding "autonomy," keep in mind that unlike Tesla, which sells a LiDAR-less fraud to rubes, Cruise is *already* running a fleet of *fully* autonomous cars in San Francisco; you can see many videos of this on <u>its YouTube channel</u>.

I thus consider these positions (GM and VW) to be both "freestanding value stock buys" *and* "relative value paired trades" against our larger Tesla short.

We continue to hold a small, speculative position in <u>NuScale Power</u>, which went public in April by merging into a SPAC and on May 2<sup>nd</sup> will change its ticker from that of the SPAC (SV) to SMR. I believe that the world will soon acknowledge that the *only* practical way to decarbonize is with more nuclear power (in February the EU even <u>designated it as "green"</u>) and NuScale designs small modular reactors (SMRs) using passive safety that have the only design (so far) approved by the Nuclear Regulatory Commission. This is a capex light company (it provides only engineering services), and although the first reactors in the pipeline won't come online until the end of this decade, the cash flow begins much sooner as the company is paid as construction progresses. At a pro-forma enterprise value of only around \$2 billion with great strategic holders and (according to management) enough cash on hand to become cash flow positive, I believe this is an interesting speculation, if sized accordingly. Here's <u>a recent company presentation</u>.

We remain short the biggest bubble in modern stock market history, Tesla Inc. (TSLA) which, despite a steadily sliding share of the world's EV market and a share of the overall auto market that's only around 1.5%, has a market cap roughly equal to the next 20 largest automakers *combined*. Here's why we remain short Tesla:

1) Tesla has no "moat" of any kind; i.e., nothing meaningfully proprietary in terms of its electric car technology (which has now been surpassed by numerous competitors), while existing automakers—*unlike* Tesla—have a decades-long "experience moat" of knowing how to mass-produce, distribute and service high-quality cars consistently and profitably.

- 2) Excluding working capital benefits and sunsetting emission credit sales Tesla generates barely any free cash flow.
- 3) Growth in sequential unit demand for Tesla's cars is at a crawl relative to expectations.
- 4) Elon Musk is a pathological liar.

For years I've said "Tesla is Blackberry"—the maker of a first-generation version of a product that—once the market was proven—would be supplanted into niche obscurity by newer, better versions; now I can provide a much more recent analogy: Tesla is *Netflix*. For years Netflix had an absurd valuation based on its pioneering position in streaming media, but once it proved that such a market existed myriad competitors swarmed all over it, and in April the stock collapsed when we learned that not only is Netflix no longer in "hypergrowth" mode but for the first time since 2011 (when it transitioned from physical DVDs) it actually *lost* subscribers. I believe Musk knows that Tesla is "the next Netflix" (hence his recent "Twitter buying distraction"), with VW, Hyundai/Kia, Ford, GM, BMW, Mercedes, BYD & other Chinese competitors and, in a few years, Toyota & Honda, being the Disney, HBO Max, Amazon Prime, Peacock, Hulu, Paramount +, etc., of the electric car market, stealing Tesla's share and eventually pounding its stock price down 95% or so from today's, into the valuation of "just another car company."

In fact, in April Tesla reported that Q1 deliveries were sequentially nearly *flat* (just 1398 additional cars, a gain of just 0.45%) vs. the previous quarter, and even *that* was only "achieved" by a <u>sneaky redefinition</u> by Tesla of what "a delivery" is. Yes, the company is chip-constrained, but its competitors (who, unlike Tesla, are unwilling to <u>delete safety equipment</u> or use <u>untested chips</u> to maintain production) are even *more* constrained, and in fact waiting times are longer for Tesla's direct EV competitors than they are for a Tesla; for instance, Ford's Mustang Mach-E is so in demand that it has even <u>halted additional orders for</u> the 2022 model year. (Current annual Mach-E production capacity is around 65,000 for the U.S. & Europe and tens of thousands more for China, but <u>in 2023 U.S. & European capacity will expand to 200,000</u>.) The worst thing that can possibly happen to "the Tesla story" will be when its German and Texas plants are fully operational and the subsequent excess capacity stares the world right in the face, thereby ending its myth of "unlimited demand" (especially at current, drastically-raised prices, where the cheapest Model 3 now starts at \$47,000 and the cheapest Model Y begins at \$63,000); in fact, look for margindestroying price cuts by late this year or early 2023.

Meanwhile, the "record" profits that accompanied Q1's nearly flat delivery number were obtained via myriad one-time items, including \$679 million of emission credit sales that will disappear over the next year or two as every automaker ramps up its EV sales, a mysterious \$502 million reduction in SG&A expense (of which only \$140 million was due to reduced stock comp) despite opening new factories in Germany and Texas (what is Tesla capitalizing instead of expensing???) and a combination of FIFO accounting and multiple sticker price increases that allowed Tesla to expense rapidly rising raw materials costs at older, lower prices while selling cars built from those materials at new, considerably *higher* prices. Adjusting for these factors, Tesla had GAAP earnings for the quarter that were at *least* \$1/share lower than the posted \$2.86, and annualizing that realistic \$1.86/share to \$7.44 means that at April's closing

price Tesla (on a no-growth quarter) had a PE ratio of around 117 vs. an industry-wide figure of less than 10. (Also, Tesla's Q1 free cash flow was only around \$1.8 billion, a *drop* of almost \$1 billion vs. the previous quarter, despite a massive increase in net accounts payable.)

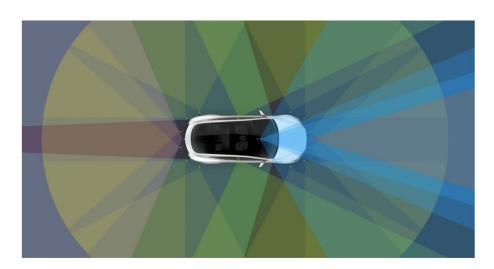
And for those of you who think that Tesla is "really an energy company," in Q1 "Tesla Energy" had revenue of just \$616 million (down 10.5% sequentially) and *cost of revenue* of \$688 million, meaning it had a *negative* gross margin. So if Tesla is "really an energy company," it's even more screwed than if it's just a car company!

Meanwhile, many Tesla bulls sincerely believe that ten years from now the company will be twice the size of Volkswagen or Toyota, thereby selling around 20 million cars a year (up from the current run-rate of around 1.3 million); in fact in March <u>Musk himself even raised this as a possibility</u>. To illustrate how utterly absurd this is, going from 1.3 million cars a year today to 20 million in ten years means that *in addition to* one million cars a year of eventual production from the new German and Texas factories, Tesla would have to add 35 *more* brand new 500,000 car/year factories with sold out production; i.e., a new factory *nearly every single quarter* for ten years! And what then? Well, then you'd have a car company approximately twice the size of Toyota (current market cap: \$239 billion) or Volkswagen (current market cap: \$97 billion). If that would make Tesla worth, say, \$500 billion in 10 years, discounting that back at 15%/year and allowing for enough share dilution to pay for all those factories, Tesla—in that absurdly optimistic scenario—would be worth just \$100/share today, down almost 90% from its current price. (To be clear, I think it's going *much* lower than that!)

#### Another favorite hype story from Tesla bulls has been "the China market," but Tesla's Q1 2022 domestic China sales sequentially *declined* by approximately 8000 units vs. Q4 2021, and it had only around 1.9% of the overall Chinese passenger vehicle market and just 11% of the BEV market.

Meanwhile, as Tesla continues to sell its fraudulent & dangerous so-called "Full Self Driving" the head of that program <u>recently took a four-month sabbatical</u>; the last major Tesla executive who did that (Doug Field) <u>never returned</u>. In a sane regulatory environment Tesla, having sold this garbage software for *over five years now...* 

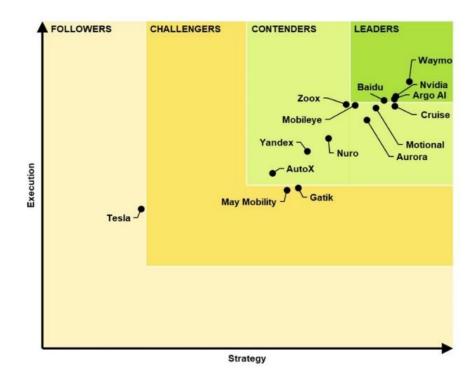
All Tesla Cars Being Produced Now Have Full Self-Driving Hardware



The Tesla Team • October 19, 2016

...would be prosecuted for "consumer fraud," and indeed the regulatory tide may finally be turning, as two U.S. senators continue to question its safety and last year the NHTSA appointed a harsh critic of this deadly product to advise on its regulation. (For all known Tesla deaths see here.) Are major write-downs and refunds on the way, killing the company's slight "claimed profitability"? Stay tuned!

Meanwhile, <u>Guidehouse Insights</u> continues to rate Tesla *dead last* among autonomous competitors:



Another favorite Tesla hype story has been built around so-called "proprietary battery technology." In fact though, Tesla has *nothing* proprietary there—it doesn't make them, it *buys* them from <u>Panasonic</u>, <u>CATL</u> and <u>LG</u>, and <u>it's the biggest liar in the industry</u> regarding the real-world range of its cars. And if new-format 4680 cells enter the market some time in 2024 (<u>as is now expected</u>), even if Tesla makes some of its own, *other manufacturers will gladly sell them to anyone*.

**Meanwhile, Tesla build quality remains** *awful* (it ranks second-to-last in <u>the latest Consumer Reports</u> <u>reliability survey</u>) while <u>the latest survey</u> from British consumer organization *Which?* found it to be one of the least reliable cars in existence. And Tesla's <u>worst-rated Model Y</u> faces current (or imminent) competition from the much better built electric <u>Audi Q4 e-tron</u>, <u>BMW iX3</u>, <u>Mercedes EQB</u>, <u>Volvo XC40</u> <u>Recharge</u>, <u>Volkswagen ID.4</u>, <u>Ford Mustang Mach E</u>, <u>Nissan Ariya</u>, <u>Hyundai loniq 5</u> and <u>Kia EV6</u>. And Tesla's Model 3 now has terrific direct "sedan competition" from Volvo's <u>beautiful Polestar 2</u>, the <u>great new BMW</u> <u>i4</u> and the premium version of <u>Volkswagen's ID.3</u> (in Europe), plus multiple local competitors in China.

And in the high-end electric car segment worldwide the <u>Audi e-tron</u> (<u>substantially improved for 2022!</u>) and <u>Porsche Taycan</u> outsell the Models S & X (and the newly updated Tesla models with their dated exteriors and <u>idiotic shifters & steering wheels</u> won't change this), while the <u>spectacular new Mercedes</u> <u>EQS</u>, <u>Audi e-Tron GT</u> and <u>Lucid Air</u> make the Tesla Model S look like a fast Yugo, while the <u>extremely well</u> <u>reviewed</u> new <u>BMW iX</u> and <u>Mercedes EQS SUV</u> does the same to the Model X.

And oh, the joke of a "pickup truck" Tesla previewed in 2019 (and still hasn't shown in production-ready form) won't be much of "growth engine" either, as it will enter <u>a dogfight of a market</u>; in fact, Ford's terrific 2022 <u>all-electric F-150 Lightning</u> now has <u>over 200,000 retail reservations</u> (plus many more fleet reservations), GM has introduced its fantastic 2023 <u>electric Silverado</u> with <u>over 110,000 reservations</u> and Rivian's pick-up has gotten <u>excellent early reviews</u>.

Regarding safety, as noted earlier in this letter, Tesla continues to <u>deceptively sell</u> its <u>hugely dangerous</u> so-called "Autopilot" system, which *Consumer Reports* has <u>completely eviscerated</u>; God only knows how many <u>more people</u> this <u>monstrosity unleashed on public roads</u> will kill despite <u>the NTSB condemning it</u>. Elsewhere in safety, the Chinese government <u>forced the recall</u> of tens of thousands of Teslas for a dangerous suspension defect the company <u>spent years trying to cover up</u>, and now Tesla <u>has been hit by</u> a <u>class-action lawsuit in the U.S.</u> for the same defect. Tesla also <u>knowingly sold cars that it knew were a</u> fire hazard and <u>did the same with solar systems</u>, and after initially refusing to do so voluntarily, it was forced to <u>recall a dangerously defective touchscreen</u>. In other words, when it comes to the safety of <u>customers and innocent bystanders</u>, Tesla is truly one of the most vile companies on Earth. Meanwhile the massive number of lawsuits of all types against the company continues to escalate.

So here is Tesla's competition in cars (note: these links are regularly updated)...

Porsche Taycan Porsche Taycan Cross Turismo Porsche Macan Electric SUV Officially Coming in 2023

> Volkswagen ID.3 Volkswagen ID.4 Electric SUV Volkswagen unveils ID.6 SUV EV in China Volkswagen ID.Buzz electric van Volkswagen ID Vizzion confirmed - answer to the Tesla Model 3 VW's Cupra Born Volkswagen unveils \$7.1B commitment to boost product line-up, R&D, mfg in N. America Audi e-tron Audi e-tron Sportback Audi E-tron GT Audi Q4 e-tron Audi Q6 e-tron confirmed for 2022 launch 2022 Audi A6 e-tron set to take on Tesla Audi will expand EV lineup with electric A6 wagon Audi TT to be axed in 2023 for 'emotional', electric replacement Hyundai Ioniq 5 Hyundai Ioniq 6 Will Be a Slick-Looking EV Sedan Hyundai Kona Electric Genesis reveals their first EV on the E-GMP platform, the electric GV60 crossover Genesis Electrified GV70 Revealed With 483 Horsepower And AWD Kia Niro Electric: 239-mile range & \$39,000 before subsidies Kia EV6: Charging towards the future Kia EV9 to land in US in 2023 with 300-miles range, \$50,000 price Kia EV4 on course to grow electric SUV range Jaguar's All-Electric i-Pace Jaguar to become all-electric brand; Land Rover to Get 6 electric models Daimler will invest more than \$47B in EVs and be all-electric ready by 2030 Mercedes EQS: the first electric vehicle in the luxury class 2023 Mercedes EQS SUV Is a Seven-Seat EV Flagship with up to 536 HP 2023 Mercedes EQE Electric Sedan Mercedes EQE SUV to rival BMW iX and Tesla Model X Mercedes EQC electric SUV available now in Europe & China Mercedes-Benz Launches the EQV, its First Fully-Electric Passenger Van Mercedes-Benz EQB Makes Its European Debut, US Sales Confirmed Mercedes-Benz unveils EQA electric SUV with 265 miles of range and ~\$46,000 price Ford Mustang Mach-E Available Now Ford F-150 Lightning electric pick-up available 2022 Ford set to launch 'mini Mustang Mach-E' electric SUV in 2023 Ford to launch 7 EVs in Europe in big electric push Ford unveils Lincoln Star electric SUV concept as it readies to add four new EVs by 2026 Volvo Polestar 2 Polestar 3 will hit U.S. market in Q1 2023 Volvo XC40 Recharge Volvo C40 Recharge Polestar 3 will be an electric SUV that shares its all-new platform with next Volvo XC90 Chevrolet Bolt sedan, 259-mile range starting at \$31,000

> Chevrolet Bolt EUV electric crossover Cadillac All-Electric Lyrig Available Spring 2022 GMC 2022 ALL-ELECTRIC SUPERTRUCK HUMMER EV GM's 2023 electric Silverado pickup truck GMC to launch electric Hummer SUV in 2023 GM announces electric versions of the 2023 Chevy Equinox & Blazer SUVs starting @ \$30,000 GM Launches BrightDrop to Electrify the Delivery of Goods and Services GM & Honda Will Codevelop Affordable EVs Targeting Most Popular Vehicle Segments Honda pours \$40 billion into electrification, targets 2 million EV production by 2030 BMW leads off EV offensive with iX3 BMW expands EV offerings with iX tech flagship and i4 sedan BMW i7 EV, with 600 hp, will be most powerful variant of new 7 Series flagship 2022 BMW iX1 electric SUV spied Renault-Nissan alliance plows \$26B into EV blitz- will jointly launch 35 new EVs Nissan vows to hop back on EV podium with Ariya Nissan LEAF e+ with 226-mile range is available now Nissan Unveils \$18 Billion Electric-Vehicle Strategy Renault upgrades Zoe electric car as competition intensifies **Renault Dacia Spring Electric SUV** Renault to boost low-volume Alpine brand with 3 EVs Renault's electric Megane will debut new digital cockpit Stellantis promises 'heart-of-the-market SUV' from new, 8-vehicle EV platform Chrysler to go all-EV by 2028 Alfa Romeo's First Electric Car Will Arrive in 2024 Peugeot e-208 PEUGEOT E-2008: THE ELECTRIC AND VERSATILE SUV Peugeot 308 will get full-electric version Subaru shows off its first electric vehicle, the Solterra SUV Citroen compact EV challenges VW ID3 on price Rivian R1T Is the Most Remarkable Pickup We've Ever Driven Maserati going fully electric by 2030 -all vehicles will offer a BEV version by 2025 **Mini Cooper SE Electric** Toyota's Electric bZ4X Goes On Sale in Spring 2022 Toyota will have lineup of 30 full EVs by 2030; Lexus will be all-electric brand Honda and Sony to build, sell EVs by 2025 Opel sees electric Corsa as key EV entry 2021 Vauxhall Mokka revealed as EV with sharp looks, massive changes Skoda Envag iV electric SUV offers range of power, battery sizes Electric Skoda Envag coupe to muscle-in on Tesla Model 3 Skoda plans small EV, cheaper variants to take on French, Korean rivals Nio to launch in five more European countries after Norway BYD will launch electric SUV in Europe The Lucid Air Achieves an Estimated EPA Range of 517 Miles on a Single Charge Bentley will start output of first full EV in 2025 All-electric Rolls-Royce Spectre to launch in 2023 – firm to be EV-only by 2030 Aston Martin will build electric vehicles in UK from 2025

Meet the Canoo, a Subscription-Only EV Pod Coming in 2021 Two new electric cars from Mahindra in India; Global Tesla rival e-car soon Former Saab factory gets new life building solar-powered Sono Sion electric cars Foxconn aims for 10% of electric car platform market by 2025

#### And in China...

How VW Group plans to dominate China's EV market VW Goes Head-to-Head With Tesla in China With New ID.4 Crozz Electric SUV Volkswagen's ID.3 EV to be produced by JVs with SAIC, FAW in 2021 2022 VW ID.6 Revealed With Room For Seven And Two Electric Motors China-built Audi e-tron rolls off production line in Changchun Audi Q2L e-tron debuts at Auto Shanghai Audi will build Q4 e-tron in China Audi Q5 e-tron Confirmed For China Audi in cooperation company for local electric car production with FAW FAW Hongqi starts selling electric SUV with 400km range for \$32,000 FAW (Hongqi) to roll out 15 electric models by 2025 BYD goes after market left open by Tesla with four cheaper models for budget-conscious buyers BYD said to launch premium NEV brand 'Dolphin' in 2022 Daimler & BYD launch DENZA electric vehicle for the Chinese market Geely announces premium EV brand Zeekr Geely, Mercedes-Benz launch \$780 million JV to make electric smart-branded cars Mercedes styled Denza X 7-seat electric SUV to hit market Mercedes 'makes mark' with China-built EQC BMW, Great Wall to build new China plant for electric cars BAIC Goes Electric, & Establishes Itself as a Force in China's New Energy Vehicle Future BAIC BJEV, Magna ready to pour RMB2 bln in all-electric PV manufacturing JV Toyota partners with BYD to build affordable \$30,000 electric car Ford MUSTANG MACH-E ROLLS OFF ASSEMBLY LINE IN CHINA FOR LOCAL CUSTOMERS Lexus to launch EV in China taking on VW and Tesla GAC Aion about to start volume production of 1,000-km range AION LX GAC Toyota to ramp up annual capacity by 400,000 NEVs GAC kicks off delivery of HYCAN 007 all-electric SUV Nio – Ready For Tomorrow Nio steps up plans for mass-market brand to compete with VW, Toyota Xpeng Motors sells multiple EV models SAIC-GM to build Ultium EV platform in Wuhan **Chevrolet Menlo Electric Vehicle Launched in China** Buick Introduces New VELITE 6 EV with Extended Range Buick Velite 7 EV And Velite 6 PHEV Launch In China Dongfeng launches the all-electric Voyah PSA to accelerate rollout of electrified vehicles in China SAIC, Alibaba-backed EV brand IM begins presale of first model L7 Hyundai Motor Transforming Chongqing Factory into Electric Vehicle Plant Polestar said to plan China showroom expansion to compete with Tesla

> Jaguar Land Rover's Chinese arm invests £800m in EV production Renault reveals series urban e-SUV K-ZE for China Renault & Brilliance detail electric van lineup for China Renault forms China electric vehicle venture with JMCG Honda plans China EV plant to expand lineup GAC Honda launches pure electric car brand 'e:NP' Geely launches new electric car brand 'Geometry' – will launch 10 EVs by 2025 Geely, Foxconn form partnership to build cars for other automakers Fiat Chrysler, Foxconn Team Up for Electric Vehicles Baidu to create an intelligent EV company with automaker Geely Leapmotor starts presale of C11 electric SUV on Jan. 1 2021 Changan forms subsidiary Avatar Technology to develop smart EVs with Huawei, CATL WM Motors/Weltmeister Cherv Seres Enovate China's cute Ora R1 electric hatch offers a huge range for less than US\$9,000 Singulato JAC Motors releases new product planning, including many NEVs Seat to make purely electric cars with JAC VW in China **Iconig Motors** Hozon Aiways Skyworth Auto Youxia CHJ Automotive begins to accept orders of Leading Ideal ONE Infiniti to launch Chinese-built EV in 2022 Human Horizons Chinese smartphone giant Xiaomi to launch electric car business with \$10 billion investment Lifan Technology to roll out three EV models with swappable batteries in 2021

#### Here's Tesla's competition in autonomous driving...

Waymo ranked top & Tesla last in Guidehouse leaderboard on automated driving systems Tesla has a self-driving strategy other companies abandoned years ago Fiat Chrysler, Waymo expand self-driving partnership for passenger, delivery vehicles Waymo and Lyft partner to scale self-driving robotaxi service in Phoenix Jaguar and Waymo announce an electric, fully autonomous car Renault, Nissan partner with Waymo for self-driving vehicles Geely's Zeekr, Waymo partner on autonomous ride-hailing vehicle for the U.S. market Volvo, Waymo partner to build self-driving vehicles Volvo Cars' unsupervised autonomous driving feature Ride Pilot to debut in California Cruise and GM Team Up with Microsoft to Commercialize Self-Driving Vehicles Cadillac Super Cruise<sup>™</sup> Sets the Standard for Hands-Free Highway Driving Honda Joins with Cruise and General Motors to Build New Autonomous Vehicle Honda launching Level 3 autonomous cars

Volkswagen moves ahead with Autonomous Driving R&D for Mobility as a Service VW, Bosch partner to develop autonomous driving systems Volkswagen teams up with Microsoft to accelerate the development of automated driving VW taps Baidu's Apollo platform to develop self-driving cars in China Ford "Blue Cruise" ARGO AI AND FORD TO LAUNCH SELF-DRIVING VEHICLES ON LYFT NETWORK Hyundai and Kia Invest in Aurora Toyota, Denso form robotaxi partnership with Aurora Aptiv and Hyundai Motor Group complete formation of autonomous driving joint venture Amazon's Zoox unveils electric robotaxi that can travel up to 75 mph Nvidia and Mercedes Team Up to Make Next-Gen Vehicles Daimler's heavy trucks start self-driving some of the way SoftBank, Toyota's self-driving car venture adds Mazda, Suzuki, Subaru Corp, Isuzu Daihatsu Continental & NVIDIA Partner to Enable Production of Artificial Intelligence Self-Driving Cars Mobileye and Geely to Offer Most Robust Driver Assistance Features Mobileye Starts Testing Self-Driving Vehicles in Germany Mobileye and NIO Partner to Bring Level 4 Autonomous Vehicles to Consumers Lucid Chooses Mobileye as Partner for Autonomous Vehicle Technology Baidu Apollo greenlighted driverless ride-hailing service on Beijing open roads Baidu Apollo's autonomous driving service is now inclusive to all the megacities in China Baidu, WM Motor announce strategic partnership for L3, L4 autonomous driving solutions Alibaba-backed AutoX unveils first driverless RoboTaxi production line in China Nissan gives Japan version of Infiniti Q50 hands-free highway driving Hyundai to start autonomous ride-sharing service in Calif. Pony.ai approved for public driverless robotaxi service in Beijing Toyota to join Baidu's open-source self-driving platform Volvo will provide cars for Didi's self-driving test fleet BMW and Tencent to develop self-driving car technology together BMW, NavInfo bolster partnership in HD map service for autonomous cars in China GM Invests \$300 M in Momenta to deliver self-driving technologies in China FAW Hongqi readies electric SUV offering Level 4 autonomous driving Tencent, Changan Auto Announce Autonomous-Vehicle Joint Venture Huawei teams up with BAIC BJEV, Changan, GAC to co-launch self-driving car brands GAC Aion, DiDi Autonomous Driving to co-develop driverless NEV model BYD partners with Huawei for autonomous driving Lyft, Magna in Deal to Develop Hardware, Software for Self-Driving Cars Xpeng releases autonomous features for highway driving Nuro Becomes First Driverless Car Delivery Service in California Deutsche Post to Deploy Test Fleet Of Fully Autonomous Delivery Trucks ZF autonomous EV venture names first customer Magna's new MAX4 self-driving platform offers autonomy up to Level 4 Groupe PSA's safe and intuitive autonomous car tested by the general public Mitsubishi Electric to Exhibit Autonomous-driving Technologies in New xAUTO Test Vehicle Apple acquires self-driving startup Drive.ai Motional to begin robotaxi testing with Hyundai Ioniq 5 in Los Angeles JD.com Delivers on Self-Driving Electric Trucks

NAVYA Unveils First Fully Autonomous Taxi Fujitsu and HERE to partner on advanced mobility services and autonomous driving Great Wall's autonomous driving arm Haomo.ai receives investment from Meituan Plus.ai, Iveco to start L4 autonomous heavy-duty truck test in Europe, China T3 Mobility, IDRIVERPLUS to pilot Robotaxi operation in Suzhou with autonomous+manual model

#### Here's where Tesla's competition will get its battery cells...

Panasonic (making deals with *multiple* automakers) LG Samsung **SK Innovation** Toshiba CATL BYD Volkswagen to Build Six Electric-Vehicle Battery Factories in Europe How GM's Ultium Battery Will Help It Commit to an Electric Future GM to develop lithium-metal batteries with SolidEnergy Systems Ford, SK Innovation announce EV battery joint venture BMW & Ford Invest in Solid Power to Secure All Solid-State Batteries for Future Electric Vehicles Stellantis affirms commitment to build battery factory in Italy with Mercedes, TotalEnergies Stellantis and LG to Invest Over \$5 Billion CAD in Joint Venture for Li-Ion Battery Plant in Canada Stellantis and Factorial Energy to Jointly Develop Solid-State Batteries for Electric Vehicles Mercedes-Benz to build 8 battery factories in push to become electric-only automaker Toyota to build plant in N.C. capable of making up to 1.2M batteries a year Toyota Outlines Solid-State Battery Tech, \$13.6 Billion Investment Nissan Announces Proprietary Solid-State Batteries Daimler joins Stellantis as partner in European battery cell venture ACC Renault signs EV battery deals with Envision, Verkor for French plants Nissan to build \$1.4bn EV battery plant in UK with Chinese partner UK companies AMTE Power and Britishvolt plan \$4.9 billion investment in battery plants Freyr Verkor **Farasis** Microvast Akasol Cenat Wanxiang Eve Energy Svolt Romeo Power ProLogium Hyundai Motor developing solid-state EV batteries Morrow

Here's Tesla's competition in charging networks...

Infrastructure Bill: \$7.5 billion Towards Nationwide Network of 500,000 EV Chargers **Electrify America** EVgo Chargepoint **Ionity Europe** Shell Plans To Deploy Around 500,000 Charging Points Globally By 2025 51 U.S. electric companies commit to build nationwide EV fast charging network by end of 2023 GM to distribute up to 10 chargers to each of its dealerships starting early 2022 Circle K Owner Plans Electric-Car Charging Push in U.S., Canada 191 U.S. Porsche dealers are installing 350kw chargers ChargePoint to equip Daimler dealers with electric car chargers Ford introduces 12,000 station charging network, teams with Amazon on home installation Petro-Canada Introduces Coast-to-Coast Canadian Charging Network Volta is rolling out a free charging network E.ON and Virta launch one of the largest intelligent EV charging networks in Europe Volkswagen and BP launch strategic partnership to rapidly roll-out EV fast charging in Europe Smatric has over 400 charging points in Austria Allego has hundreds of chargers in Europe PodPoint UK charging stations Instavolt is rolling out a UK charging network Fastned building 150kw-350kw chargers in Europe Aral To Install Over 100 Ultra-Fast Chargers In Germany Deutsche Telekom launches installation of charging network for e-cars Total to build 1,000 high-powered charging points at 300 European service-stations NIO teams up with China's State Grid to build battery charging, swapping stations BYD, Shell to build joint venture for EV charging network development in China Volkswagen-based CAMS launches supercharging stations in China Volkswagen, FAW Group, JAC Motors, Star Charge formally announce new EV charging JV BMW to Build 360,000 Charging Points in China to Juice Electric Car Sales BP, Didi Jump on Electric-Vehicle Charging Bandwagon Evie rolls out ultrafast charging network in Australia Evie Networks To Install 42 Ultra-Fast Charging Sites In Australia

#### And here's Tesla's competition in storage batteries...

Panasonic Samsung LG Energy Solutions BYD AES + Siemens (Fluence) GE Hitachi ABB Toshiba Saft

> Johnson Contols EnerSys **SOLARWATT** <u>Sonnen</u> **Kyocera** <u>Generac</u> <u>Kokam</u> **Eaton** Tesvolt **Kreisel** Leclanche Lockheed Martin Honeywell EOS Energy Storage <u>ESS</u> UET electrIQ Power <u>Stem</u> **ENGIE Redflow Primus Power** Simpliphi Power Invinity Murata **Bluestorage** Adara **Blue Planet** <u>Aggreko</u> <u>Orison</u> <u>Moixa</u> Powin Energy Nidec Powervault **Kore Power** Shanghai Electric **LithiumWerks** Natron Energy **Energy Vault** Ambri <u>Voltstorage</u> Cadenza Innovation Morrow Gridtential Villara Elestor Flexgen

> SolarEdge Q-Cells Huawei ADS-TEC Form Energy Enphase Sumitomo Electric Stryten Energy Freyr Growatt Polarium C4V

Thanks,

Much Spriegel