

***“When I see a bubble forming, I rush in to buy, adding fuel to the fire. That is not irrational.”***

—George Soros, 2009

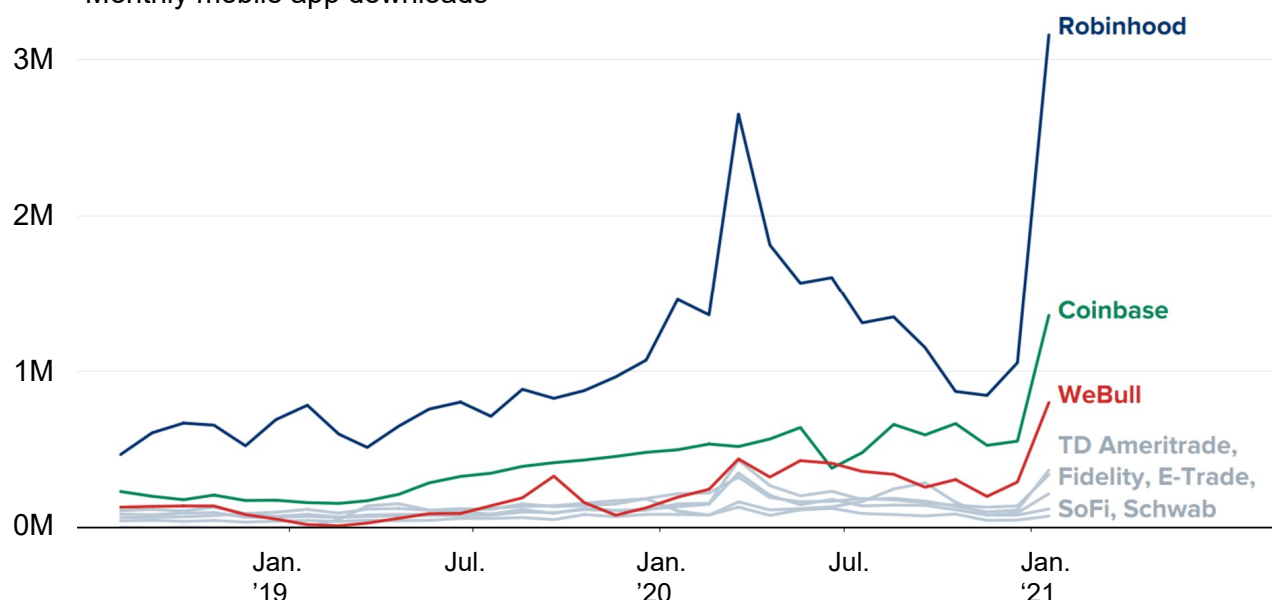
## Meme stocks, the new social network

How do you count groundhog days? Piling them up still adds up to one. February now. March soon. A day, a month, a year, has it been a year? Hints of an earlier sunrise to remind me: there will be Spring. I can almost touch the dawn. The planet spins; at least something is in motion. Mineral time is immutable. Biology is impatient. I’m sedentary as a rock, bored and tired. Waiting. I’ve lost all sense of time. I press a button, tap my screen. Play, Pause, Replay, Repeat.

A few more copy-paste days perhaps. I’ve disconnected the TV, ditched Instagram, dumped Twitter, watched all the Netflix I can take, got my Cyberpunk 2077 refund, what else? Let’s pop up Reddit to catch a trade. Check my *YOLO stonks* on Robinhood. What’s everybody buying today? Honey, where’s my phone? I need a trade...

### ***Robinhood leads in app downloads amid GameStop frenzy***

Monthly mobile app downloads

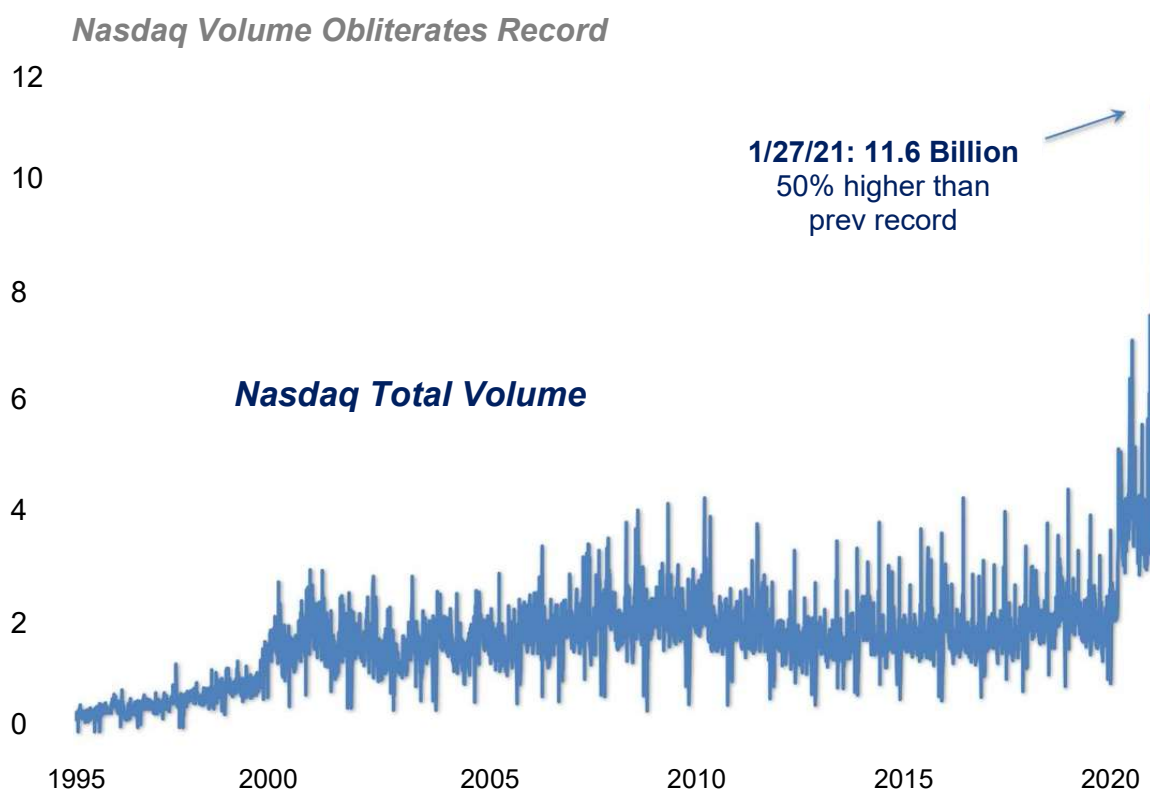


Source: SimilarWeb & JMP Securities LLC

## Trading From Home

What else is there to do? Robinhood, Coinbase, WeBull, have brought day trading to a new level. **Retail traders all over the world have joined the stock and crypto party in volumes never before imagined.** Pundits and punters everywhere. 20-something social influencers on YouTube and Reddit, leading droves of traders into *meme stocks* with enormous impact. Cathy Wood’s ARK Invest, arguably the most successful asset gatherer of the pandemic rally, moved her entire marketing platform to

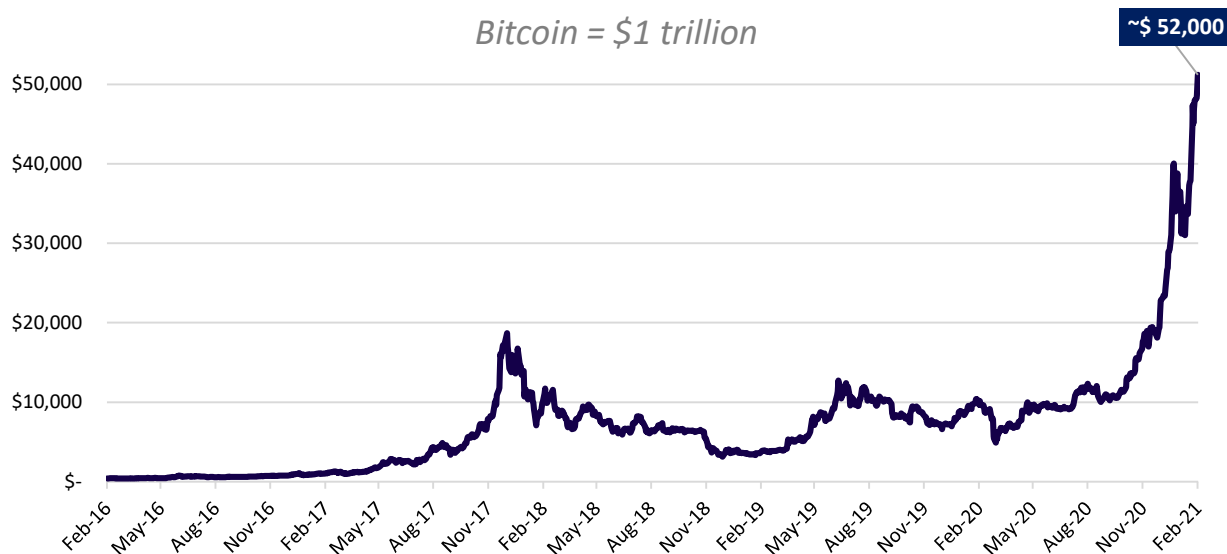
YouTube in 2020 with spectacular efficacy: AUMs up from approx. \$6b to \$58b in the 12 months to Dec. Her January YouTube podcast had 760k viewers. Even more influential is Facebook billionaire Chamath Palihapitiya whose own videos regularly clock more than 2m downloads. Reddit's WallStreetBets has 9m subs. And of course, Elon Musk tops them all with his 47m followers endeared to his Bitcoin conversion and cryptic prophecies. This January, Nasdaq volumes pulverized previous records. Coinbase and Binance report weeks of account opening backlogs. Day trading is the new social network. Apps are open 24/7. Trade, chat, post, trade.



Source: Nasdaq; The Lyons Share

### Gradually, then suddenly

Technologists and venture capitalists are evangelists at heart. In the long term, they tell you, they will be proven right. And once they have made the investment, once they have bet the farm, they set out to convert the disbelievers. Incessantly. Bitcoin evangelists sit among them, to the far edge of reality. You doubt, you question, and suddenly, into the rabbit hole you do go. The fantasy *is* real.



## The art of reification

**It takes faith to see the digital future.** Bitcoin was created in 2008, the same year the Fed reinvented Quantitative Easing. For 12 years, Crypto enthusiasts have been unrelenting prophets. Digital gold, world currency, blockchain killer app, nothing is too ambitious for its promoters. And here it is, a \$1 trillion reality. It's easy to see its mass appeal: a borderless, tamperproof, inflation resistant currency. Everyone is a skeptic and everyone is buying it.

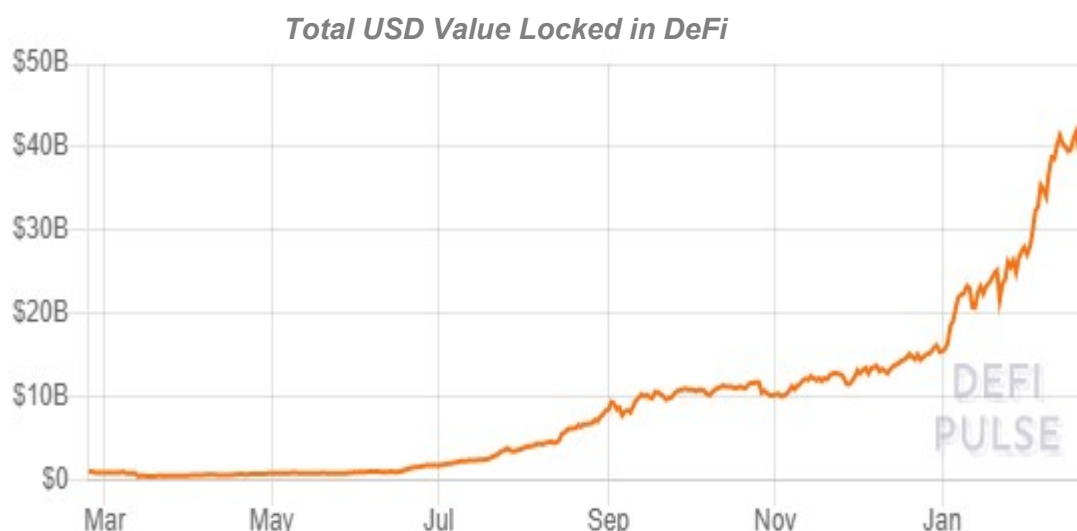
**Whether real or illusory, we have a problem. Ignoring Bitcoin is no longer an option.** If it keeps rising we have a sovereignty problem; if it collapses we have a subprime problem. 2021 will likely be the year we find out. At the time of the Lehman bankruptcy there were approx. \$1.4 trillion US subprime mortgages outstanding, of which 40% went delinquent (Source: US Mortgage Bankers Association). How exactly do you deflate \$1.4T of a mostly retail owned asset? Bitcoin may have entered the realm of too-big-to-fail.

**We lean on the side of "real". Bitcoin is real because massive monetary debasing is irreversible.** As noted by BoA (18 feb 2021 Strategy note) : global central banks bought \$1.1bn of financial assets every hour since March, the Fed balance sheet is now 36% of GDP (vs 3% WWI, 11% WWII, 15% after GFC); BoJ and ECB are also at record highs. Global equity markets are up >\$50 trillion in 11 months. **Bitcoin has many problems, but it is both digital and disinflationary, a perfect combination for our time.**

But the paradigm shift that matters most to us is not the Bitcoin rabbit hole. **Beyond the speculative madness, the rise of Bitcoin is provoking a seismic shift in the architecture of financial settlements.** If BTC can empower people everywhere to exchange digital assets instantly, what exactly is the future of our legacy financial infrastructure? Why do we still settle cash transfers in 24h; stock trades in 48 hours? Robinhood nearly went bankrupt because of settlement backlogs. Mastercard, Bank NY Mellon, Visa, Signature Bank, Barclays, JPMorgan, have asked the OCC to approve connecting their trading floors to Bitcoin and Ether/ERC20 nodes. Yet again, gradually, then suddenly, the future is already here.

## Smart contracts and instant settlements

**Behind Bitcoin lurks the boom in Decentralized Finance (“DeFi”)**, payment/settlement networks outside the banking system powered by smart contracts on the Ethereum network. From Nov 2020 to today, these networks have grown, *staked* and traded assets from less than \$2b to \$43b+ boosted by the rise in institutional staking (buying and holding) and trading of derivatives (notably CME and Binance futures). Platforms such as Maker, Aave, Compound and Uniswap pay interest to *stakers* and settle trades and coupons.



Source : <https://defipulse.com/>

DF focuses not simply on major disruptions but on **“investible” disruptions**. While we participated in the Bitcoin rally up until mid-January, we believe the DeFi revolution has a more structural and measurable disruptive potential for the financial industry. Smart contracts built on public blockchains, especially Ethereum, have the potential to push stock exchanges, clearing houses, and all forms of financial instrument trading into the realm of *instant settlement* bringing dramatically lower costs to the financial services industry.

Cryptocurrencies, tokens and smart contracts remain outside the realm of equity investors and, therefore, Disruption Fund. Our approach right now is to benefit from the Bitcoin trading frenzy via Square and PayPal, as well as gain exposure to the rise of the Ethereum blockchain as the primary DeFi network via the Grayscale Ethereum Trust.

### DF owns some indirect exposure to Bitcoin and Crypto markets:

- **Grayscale Ethereum Trust**; **Square** (50% of 3Q20 revs from crypto trading); **PayPal** (recently launched crypto trading and processing; not yet meaningful); Sold **Grayscale Bitcoin Trust** in its first run up to \$40,000.
- Watch list : **Grayscale Bitcoin Trust**, **Diginex**, **Silvergate Capital**, **Microstrategy**, **Signature Bank**
- Private company watch list : **Coinbase** (latest pre-IPO valuation round at \$100b valuation!), **Binance**

***That was a long but necessary digression on the macro conditions dominated by excess liquidity and the unintended consequences of massive QE.***

## The 2021 peace dividend and the inventory crisis

In our Year-End 2020 note, we expressed our Peace Dividend recovery theory. We believe in it more now than ever. Both Moderna's and BioNTech's vaccines work. Israel has been sharing their entire vaccination data with Pfizer/BioNTech: infection rates are crashing down. Spring will be hot.

***The global economy is entering a powerful post-war recovery fuelled by record high savings, unprecedented stimulus, and bulging consumer confidence. The scenario is stronger than ever, perhaps too strong. We think US 10 year rates need to return to 2% by the summer. We are positioned defensively.***

There are many idiosyncratic distortions in data that risk sending false signals in inflation expectations, job creation, corporate margins and of course the direction of interest rates.

Some key data is hard to ignore however: **Inventories for everything are running critically low.** New homes, autos, food commodities, cargo ships, semiconductors, all are showing real signs of scarcity. **Our single biggest worry is the likely rise in inflation, especially USD inflation.**

The 2021 recovery will be very unusual. Pent up demand is so strong. It's difficult to model the ramifications of scarcity.

### US Monthly Supply of Homes for Sale

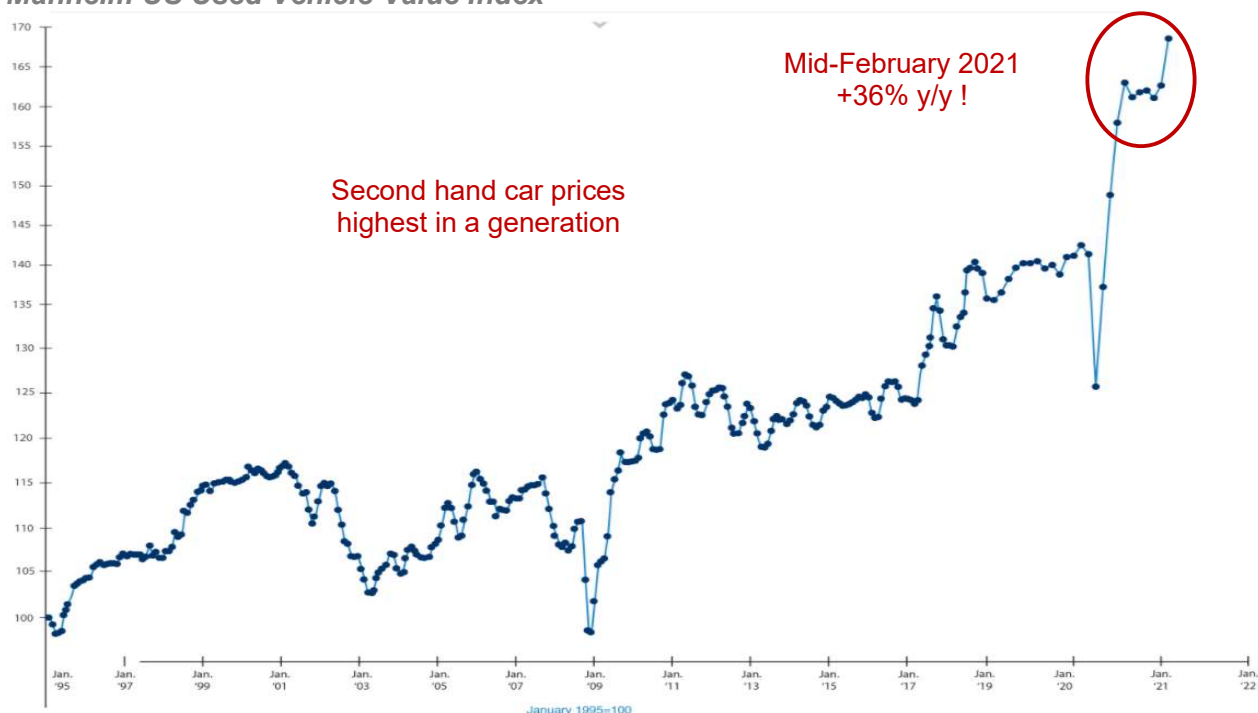


Source : St. Louis Fed <https://fred.stlouisfed.org/series/MSACSR>

Higher lumber prices are “adding thousands of dollars to the cost of a new home and causing some builders to abruptly halt projects at a time when inventories are already at all-time lows.”

--Chuck Fowke, chairman of the US National Association of Home Builders

### Manheim US Used Vehicle Value Index



Source : <https://publish.manheim.com/en/services/consulting/used-vehicle-value-index.html>

### Invisible Tech : Cloud, Infrastructure Software & Semis

If it is in high winds that you test a sailboat, then surely 2020 was the ultimate storm test of Cloud & SaaS infrastructure. And pass the utility stress test they did, with high marks. Despite the enormous surge in traffic, nowhere did we hear of major network failures or app outages. Unlike the Texas electricity grid, internet infrastructure nearly everywhere delivered the reliability expected from its role as a public utility. **We think the epic stress test of 2020 validates the claim to utility status of the major Cloud and SaaS vendors.** Valuations are surely demanding, but this is the new Utility Sector. As such, in times of market stress we like to consider them core holdings. Our investments in the Cloud continue unabated.

And growth is still accelerating.

During the October 2020 reporting season, the **Semiconductor industry average growth rate for Q1 and Q2 2021 was forecast to be 15% and 14%; in Jan it was raised to 32% and 28%.** Nvidia FY Jan22 revenue growth has been revised from +21% to +30%. Software companies tend to report a month later than most, so we only have a few, but so far **Twilio** raised guidance to their fourth consecutive revenue acceleration; **Hubspot** accelerated 2021 guidance from 21% to 33%. **Adyen** raised Ebitda margin guidance from 50% to 65%.

**DF owns Cloud Infrastructure Software, Services and Semis**, grouped here across all verticals:

- Cloud : *Twilio, CrowdStrike, Zscaler; added Palo Alto Networks, Snowflake*
- Semis: *Nvidia, ASML, SOITEC, Kalray; sold AMD, TSMC*
- Watch list: *Agora, Bill.com, BigCommerce, Salesforce, Splunk, Elastic, MongoDB, Palantir, CyberArk, Wallix, Tenable, Rapid7, DataDog, New Relic, Dynatrace*
- Private company watch: *Bitglass, Tuya, Databricks*



## Visible Tech: eCommerce, Apps & Fintech

**Digital wallets are like social networks. Every new user brings an exponential increase in possible P2P transactions, and better still, they are instantly monetizable from day one with trading.** Square reported Feb 23 that Cash App now has 80m users (used the app at least once), of which 36m have traded on the app, generating an ARPU of \$41 as of Dec. 2020 (4Q2020 report). This compares to Facebook's industry high \$32 ARPU for 2020 (Source Statista). 4m users have traded Bitcoins at an average gross margin of 2,3%. Trading apps are sticky, boost engagement, and are highly profitable. Arguably there are as many potential payment/trading app users as there are social media users. We think the upside for financial services apps is even greater than traditional social media.

Social media meanwhile, is doing just fine. In their earnings recap for Jan 2021, BoA calculated that average growth rates for Facebook, Google, Snap, Twitter and Pinterest had been revised up from 27% in Sept to 44% now; 2Q21 was revised from +43% to +61%.

**DF owns a combination of eCommerce, TaaS, eLogistics and eProperty** plays as well as several integrated marketplace/fintech enablers, to capture some of the largest TAMs. Subscription and advertising based New Media also features here.

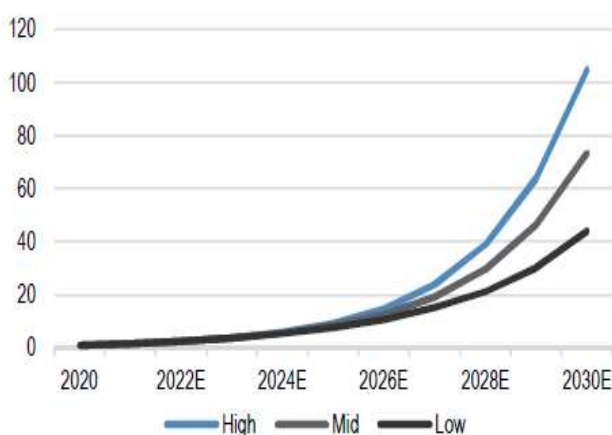
- *PayPal, Square, Mercadolibre, Sea Ltd, PayPal, Square, Snap, Amazon, Zillow, Lightspeed POS, Teladoc, Veeva, Kahoot!*
- Watch list : *Shopify, Zalando, Ocado, Alibaba/Ant, StoneCo, Opendoor, Redfin, Delivery Hero, Just Eat Takeaway, Zur Rose Group, Jumia, Netflix, Alphabet, Trade Desk, Ubisoft, CD Projekt, Paradox, Roku, Stillfront, nCino, Lemonade, Sprout Social, Amwell, Adobe, Zoom Video, Chegg, Anaplan, Paycom, Asana, Pinterest, Uber, Adyen*
- Sold recently : *Uber*
- Private company watch: *Hinge Health, Prose, NA-KD, Ollie, JobandTalent, Rex Homes*

## Clean Tech & Mobility

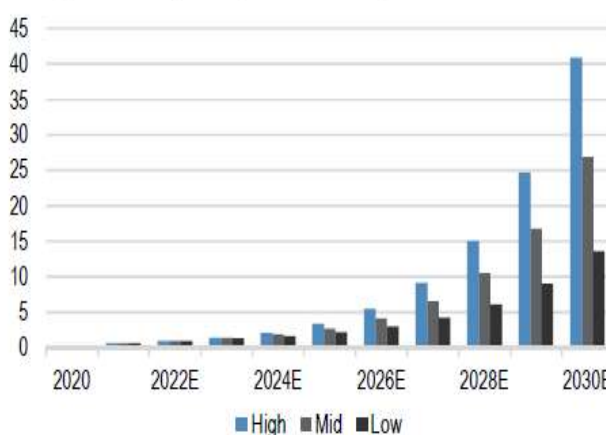
**Hydrogen is the fuel of the future.** We've discussed before how we see battery technology as a "transition tech" towards truly green transportation powered by hydrogen. Hydrogen electrolyser suppliers like **ITM, Nel, Plug Power** have cut the cost of H2 production by 60% over the last 10 years. As fresh funding allows them to begin manufacturing at scale, the cost curve should drop another 60% over the next 3 years. And with the help of disruptive innovations like **Ceres Power** solid oxide electrolyzers another 25% is possible. ITM's Sheffield giga-factory went online on Jan 4<sup>th</sup>, 2021.

**Installed capacity could reach 70-100GW by 2030... with annual shipments reaching 25-40GW**

Global electrolyser installed capacity to 2030E, GW



Annual global electrolyser shipments to 2030E, GW



Source : ITM Power plc; JPMorgan Research

DF owns both the world's leading Proton Exchange Membrane electrolyzer manufacturer, the UK's **ITM Power plc**, and the emerging leader in solid oxide technology, the UK's **Ceres Power plc**.

**DF owns EV, Hydrogen and Clean Tech companies:**

- *NIO Inc., Carbios, Ceres Power, ITM Power, Cree; added QuantumScape*
- Recently sold *Alfen*
- Watch list: *Tesla, Plug Power, XL Fleet, Solar Edge, Lordstown Motors, Fisker, Nikola, Workhorse, Ballard Power, Fuel Cell Energy, Bloom Energy, Electrovaya, Contemporary Amperex Tech, Doosan Fuel Cell, Blink Charging, xPheng, Li Auto, STMicro, Valeo.*

## Life Sciences and Gene Medicine

Recently, leading gene therapy leader BlueBird Bio reported that two of their sickle cell patients treated with their LentiGlobin infusion 5 years ago had developed serious complications, one AML (leukemia) and one MDS (another blood cancer). The company immediately paused all the ongoing trials in its sickle cell program. BlueBird's LentiGlobin is a viral vector-based gene therapy, very different from CRISPR gene editing. In an uncomfortable twist of fate, this is a reminder that not all gene editing technologies are alike. **CRISPR Cas9 and base editing remain the simplest and so far most versatile solution to recoding DNA in vivo**; there may be no need to deliver ex-vivo recoded genes into cells with a viral vector. It may also be that many viral vector technologies turn out to be "transition" therapies on the way to fully corrective therapies based on CRISPR and base editing. We own two gene editing companies CRISPR Therapeutics and Intellia Therapeutics.

**Another biotech revolution is in the making around the emerging field of microbiome based therapies.** The microbiome is to microbial life what the genome is to DNA: a map. Focused entirely on microbial life, this field is exploring the complex role of microbes in the digestive system in modulating immune responses in general and inflammation in particular. Late in 2020 Evelo Biosciences showed how synthetic microbes could be used to stimulate intestinal pathways in the reduction of psoriasis. Phase II trials have started and should be ready for read-out in late 2Q21. Anti-inflammation drugs are among the biggest pharma sellers in the world, including AbbVie's Humera (\$14b Revs'20) and Amgen's Enbrel (\$5b). Any breakthrough from such simple technology could bring extraordinary benefits at significantly lower prices.

**Computers are driving a flood of new research opportunities and drug candidates.** Schrodinger, a molecular modelling software company has delivered so many new drug candidates to biopharma companies that they have launched their internal drug candidate development unit, teaming up with Bristol Myers to capture royalties in the event of a breakthrough. More deals are likely. Computational biology companies **BioXcel** and **Evogene** are pursuing similar AI based research with a vast and promising future.

DF owns CRISPR and AI driven molecular research companies:

- *CRISPR Therapeutics, Intellia, Bioxcel, Evelo Bio, Schrodinger, Evogene*
- Watch list: *Invitae, Illumina, Pacific Bio, 10X Genomics, ToolGen, Cellectis, Thermo Fisher, Personalis, Exact Sciences, Cerus, Adaptive Bio, Natera, Accelerate Diagnostics, T2 Bio, Exagen, Editas Medicine, BiomX, Kaleido, Synlogix, Seres*
- Private company watch: *Caribou Bioscience, Casebia Therapeutics, Graphite Bio*



## Disruption Fund Performance

**Disruption Fund (A share)**  
**MSCI World Total Return EUR**

**YTD 19/02/21**

**+17.98%**

**+5.40%**

**Since 31/01/19**

**+126.32%**

**+35.71%**



Note: Data range = 31/01/2019 → 19/02/2021. Jan 31, 2019 marks the start of the new fund management team, including name change and new prospectus. Past performance is not indicative of future returns. Please consult your investment advisor for suitability. NAV performance shown here is for A-shares, net of fees.

As of Feb 19, 2021, the top equity positions of the Disruption Fund were as follows:

• <b>ASML Holding NV</b>	<b>3.15%</b>	• <b>Schrodinger Inc</b>	<b>1.63%</b>
• <b>Palo Alto Networks Inc</b>	<b>2.98%</b>	• <b>Nvidia Corp</b>	<b>1.61%</b>
• <b>Snowflake Inc</b>	<b>2.88%</b>	• <b>Sea Ltd</b>	<b>1.59%</b>
• <b>Square Inc</b>	<b>2.87%</b>	• <b>Zscaler Inc</b>	<b>1.59%</b>
• <b>Lightspeed POS Inc</b>	<b>2.73%</b>	• <b>NIO Inc</b>	<b>1.59%</b>
• <b>Carbios SA</b>	<b>2.61%</b>	• <b>Stratasys Ltd</b>	<b>1.58%</b>
• <b>ServiceNow Inc</b>	<b>2.45%</b>	• <b>Kahoot! AS</b>	<b>1.57%</b>
• <b>Zillow Group Inc</b>	<b>2.26%</b>	• <b>Snap Inc</b>	<b>1.57%</b>
• <b>Evelo Biosciences Inc</b>	<b>1.91%</b>	• <b>MercadoLibre Inc</b>	<b>1.54%</b>
• <b>Intellia Therapeutics Inc</b>	<b>1.87%</b>	• <b>SOITEC SA</b>	<b>1.51%</b>
• <b>Cree Inc</b>	<b>1.84%</b>	• <b>Kalray SADIR</b>	<b>1.50%</b>
• <b>BioNTech SE</b>	<b>1.81%</b>	• <b>Bioxcel Therapeutics Inc</b>	<b>1.49%</b>
• <b>Twilio Inc</b>	<b>1.78%</b>	• <b>Evogene Ltd</b>	<b>1.47%</b>
• <b>Archer Aviation/ACIC</b>	<b>1.75%</b>	• <b>Grayscale Ethereum Trust</b>	<b>1.42%</b>
• <b>ITM Power Inc</b>	<b>1.73%</b>	• <b>CRISPR Therapeutics Ltd</b>	<b>1.39%</b>
• <b>Paypal Holdings Inc</b>	<b>1.73%</b>	• <b>Translate Bio Inc</b>	<b>1.15%</b>
• <b>Teladoc Health Inc</b>	<b>1.71%</b>	• <b>AEye Inc/CFAC</b>	<b>0.59%</b>
• <b>Nanobiotix SA</b>	<b>1.69%</b>	• <b>Other pre-deal SPACs</b>	<b>6.79%</b>
• <b>QuantumScape Corp</b>	<b>1.67%</b>		
• <b>CrowdStrike Holdings Inc</b>	<b>1.67%</b>		
• <b>Veeva Systems Inc</b>	<b>1.63%</b>		

We hope you find our letter useful and look forward to continuing this discussion.

**Jean-Edwin Rhea – 24 Feb 2020**

**Legal Information:**

**Disruption Fund** is a French UCITS, (A share: FR0012770154 / B share: FR0012770162) invested primarily in global equities, with a recommended holding period of 5 years. Broadly speaking, the Fund seeks to invest in innovative technology businesses. More specifically, the fund seeks out sectors and companies undergoing structural or technological disruption. The fund manager seeks leading disruptive companies, growing fast, with visionary management teams. All historical data provided is for A-shares, currently closed to new investors.

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